

Dedicated to Modern Hellenism & in Honor of Nobel Laureate in Chemistry, Prof. Avram Hershko



Prof. Avram Hershko

2024 SIPS

20-24 October 2024, Out of the Blue Resort, Crete, Greece

Covering Sustainability Pillars :

- Science, Technology & Industry
- Governance & Management
- Education & Civil Society

SIPS 2024 HONOREES



Dr. Koji Abe



Dr. Georgios Anastassakis



Me. Migen Dibra



Dr. Mercouri Kanatzidis



Mr. Sergio Leite



Dr. Hans Leuenberger



Dr. Janusz Lipkowski



Dr. Sergio Monteiro



Dr. Sener Oktik



Dr. Nancy Ross



Dr. Peter Rowlands



Dr. Ludwig Schultz



Dr. Michael Stelter

PROGRAM



Featuring Many Nobel Laureates:



Dan Shechtman
2011 - Chemistry



Harvey J. Alter
2020 - Medicine



Gregg L. Semenza
2019 - Medicine



Joachim Frank
2017 - Chemistry



Konstantin Novoselov
2010 - Physics



Aaron Ciechanover
2004 - Chemistry



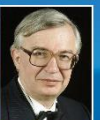
Avram Hershko
2004 - Chemistry



Kurt Wüthrich
2002 - Chemistry



Rudy A. Marcus
1992 - Chemistry



Jean-Marie Lehn
1987 - Chemistry

Special Address:



Malcolm McNeil
President
Beverly Hill Bar
Association
USA



Donna J. Nelson
2016 President
American Chemical
Society
USA



Subra Suresh
President/Global
Learning Council
Switzerland
Former Director
NSF/USA



Nektarios Tavernarakis
Chair
EIT Governing Board
President
FORTH



Louise Otis
International Judge,
Mediator and Arbitrator
(Photo by BAoC)



Haruhiko Inufusa
CEO
TIMA
Japan



HellasGOLD



Summit Website: www.flogen.org/sips2024 **Contact:** Dr Florian Kongoli (fkongoli@flogen.org)
Phone: 1 514 807-8542 Toll Free: 1 877 2-FLOGEN (Within North America) **Fax:** 1 514 344-0361

Organizer Logos

Organizer



Co-Organizer



ΠΕΡΙΦΕΡΕΙΑ ΚΡΗΤΗΣ
REGION OF CRETE

Under The Auspices Of





National Technical University of Athens



**GREEK
MINING
ENTERPRISES
ASSOCIATION**



Leadership Committee



Dr. Florian Kongoli
SIPS President
Chairman
FLOGEN STARS OUTREACH
Canada



Dr. Dan Shechtman
SIPS Honorary President
Technion
Israel



Dr. Nektarios Tavernarakis
Chair, EIT Governing Board (European
Institute of Innovation & Technology)
Greece



Dr. Abdurassul Zharmenov
National Center on Complex Processing of
Mineral Raw Materials
Kazakhstan

Symposia Committees



Florian Kongoli
FLOGEN
Technologies
Canada



Osman Adiguzel
Firat University
Turkey



Farman Ahmed
FMRR/P.C.S.I.R.
Pakistan



Katerina Aifantis
University of Florida
United States



Miguel A. Alario Franco
 Complutense U. of Madrid
 Spain
 (Passed away on 26 Aug, 2024)



Rodrigo Alvarenga Vilela
 Samarco
 Brazil



Matteo Alvaro
 University of Pavia
 Italy



Christian Andre Amatore
 CNRS & PSL,
 French Academy of Sciences
 France



Ljubisa Andric
 Academy of Engineering Sciences of Serbia
 Serbia



Juergen Antrekowitsch
 Christian Doppler Laboratory
 Austria



Konstantinos Aravossis
 National Technical University of Athens
 Greece



Gilberto Artioli
 University of Padova
 Italy



Paulo Assis
 Universidade Federal de Ouro Preto
 Brazil



Mark Asta
 University of California, Berkeley
 United States



Samson Mekbib Atnaw
 Addis Ababa Science and Technology University
 Ethiopia



Jerry Atwood
 University of Missouri-Columbia
 United States



**Zhumabay
Bakenov**
Nazarbayev
University
Kazakhstan



**Douglas
Bammann**
Mississippi State
University
United States



Len Barbour
University of
Stellenbosch
South Africa



Michaela Barinova
Tomas Bata
University in Zlin
Czech Republic



Burak Büyükfırat
Şişecam
Turkey



**Anastassios
Bountis**
University of Patras
Greece



Stephan Buchmann
Idorsia
Pharmaceuticals
Switzerland



Mariana Calin
IFW Dresden
Germany



Claudio Capiglia
Reliance Industries
Limited
India



Hunter Carter
ArentFox Schiff
LLP
United States



Valentin Chanturiya
Russian Academy of
Sciences
Russian Federation



**Alexandros
Charitos**
TU Bergakademie
Freiberg
Germany



**Ioannis
Chatjigeorgiou**
National Technical
University of Athens
Greece



Hong-Yuan Chen
Nanjing University
China



Nikoloz Chikhradze
G. Tsulukidze Mining
Institute
Georgia



In Chung
Seoul National
University
South Korea



Raj Das
RMIT University in
Australia
Australia



**Marcos De
Campos**
Federal
Fluminense
University
Brazil



**Jose Adilson De
Castro**
Federal Fluminense
University
Brazil



**Massimiliano
Delferro**
Argonne National
Laboratory
United States



Brahma Deo
IIT BHUBANESWAR
India



Susana Diaz
Universidade
Federal do Rio de
Janeiro
Brazil



Andrey Dmitriev
Institute of Metallurgy
of the Ural Branch of
the Russian Academy
of Sciences
Russian Federation



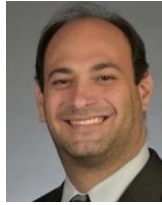
Harold Dodds
University of
Tennessee
United States



Jean-Marie Dubois
Jožef Stefan Institute
Slovenia



Gheorghe Duca
Moldova State
University
Moldova



**Marcelo Esteves
Campos**
UFMG
Brazil



Omar Farha
Northwestern
University
United States



Rasmus Fehrmann
DTU
Denmark



**Wilson Ferreira
Santos Jr.**
Independent
Auditor and
Business
Consultant
Brazil



Douglas Fuerstenau
University of
California, Berkeley
United States



Carmen Gaidau
R&D National
Institute
Romania



Mauro Giorcelli
Politecnico di Torino
Italy



**Mery-Cecilia
Gomez Marroquin**
National University
of Engineering
Peru



Yakov Gordon
Hatch
Canada



Xueyi Guo
Central South
University
China



Lijie Guo
University of Toronto
China



Rajeev Gupta
NC State
University
United States



Maros Halama
Technical University
of Kosice
Slovakia



Gustav Hanke
Montanuniversität
Leoben
Austria



**Yoshihisa
Hayakawa**
Rikkyo University
Japan



Shmulik Hayun
Ben-Gurion
University of the
Negev
Israel



Shigeru Hirano
Kyoto Prefectural U.
of Medicine
Japan



Wei-Hua Huang
Wuhan University
China



Georgios Imanidis
University of Applied
Sciences
Northwestern
Switzerland (FHNW)
Switzerland



Haruhiko Inufusa
TIMA Japan & Gifu
University
Japan



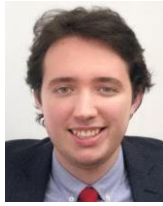
Barbora Jedlickova
TC Beirne School of
Law, The University
of Queensland
Australia



Mark Johnson
University of
Manchester
United Kingdom



J. Brian Jordon
The University of
Alabama
United States



Davis Joseph
McGill University
Canada



Hiroshi Kageyama
Kyoto University
Japan



Vinit Kapur
The All India Glass
Manufacturers'
Federation (AIGMF)
India



Sabah Karam
Duality Science
Academy
United States



Ibrahim Karim
BioGeometry
Energy Systems
Egypt



Louis Kauffman
University of Illinois at
Chicago
United States



**Christos
Kavalopoulos**
Greek Mining
Enterprises
Association
Greece



Go Kimura
Shionogi & Co., Ltd.
Japan



**Georges
Kipouros**
Dalhousie
University
Canada



Gregory Knipp
Purdue University
United States



Spomenka Kobe
Jožef Stefan Institute
Slovenia



Karel Kolomaznik
Tomas Bata
University in Zlin
Czech Republic



Harn Wei Kua
National University
of Singapore
Singapore



Vasant Kumar
University of
Cambridge
United Kingdom



Reiko Kuroda
University of Tokyo
Japan



Andrzej Legocki
Polish Academy of
Sciences
Poland



Stewart Lewis
Pyramid Polymers
LLC
United States



Lang Liu
Xi'an University
China



Henry Alonso
Colorado Lopera
Universidad de
Antioquia
Colombia



Digby Macdonald
U. of California at
Berkeley
United States



GS Mahobia
Indian Inst. of
Technology
(Banaras Hindu
University)
India



Michael Makanga
Global Health
EDCTP3
Belgium



Pinchas Mandell
Family of Israel
Foundation
Israel



Yizhak Marcus
Hebrew University
Israel



Fernand Marquis
Materials
Technologies &
Systems
United States



Manfred Mauntz
cmc Instruments
GmbH
Germany
(Passed away July
2024)



Malcolm McNeil
ArentFox Schiff LLP
United States



Natalia Menshutina
Mendeleev
University of
Chemical
Technology of
Russia
Russian Federation



Mike Mikalajunas
CIME
Canada



Stephen Miller
University of Florida
United States



William Miller
Bioverse Foundation
United States



Nathaniel Morgan
Los Alamos National
Lab
United States



**Madali
Naimanbayev**
Satbayev
University, Institute
of Metallurgy
Kazakhstan



**Alexandra
Navrotsky**
Arizona State
University
United States



Matthew Nolan
ArentFox Schiff LLP
United States



**Mohamed Sanad
Noufal**
Hampton University
United States



Cyril O'Connor
University of Cape
Town
South Africa



Claudia Oosterhof
Aperam
Germany



Garnet Ord
Toronto Metropolitan
University
Canada



Hasan Ozgunay
Ege University
Turkey



**Edna Selloriques
Pana**
Tat Filipinas Golf
Club
Philippines



Vladko Panayotov
Bulgarian Academy
of Science
Bulgaria



**Avinash Chandra
Pandey**
Inter University
Centre
India



Ioannis Paspaliaris
National Technical
University of Athens
Greece



**Josep Maria
Poblet**
Universitat Rovira i
Virgili
Spain



Alexey A. Popov
Leibniz Institute
Germany



Raj Prabhu
Mississippi State
University
United States



Swatantra Prakash
National
Metallurgical
Laboratory/CSIR
India



Tetiana Prikhna
V. Bakul Institute
NASU
Ukraine



Alain Rafael Puente
Santiago
The University of
Texas at Austin
United States



Robert Pullar
Università Ca'
Foscari Venezia
Italy



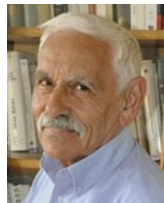
Fedora Quattrocchi
University Rome 2
Tor Vergata
Italy



Ahsan Ul Haq
Qurashi
Khalifa University
United Arab
Emirates



Arunachalam
Rajendran
University of
Mississippi
United States



Bernard Raveau
University of Caen
France



Joao Ricardo Ribas
Hospital Miguel
Couto
Brazil



Ralf Riedel
Technical
University of
Darmstadt
Germany



Julius Rubinstein
Member of Russian
Academy of Mining
Science
Russian Federation



Gudrun
Saevarsdottir
Reykjavik University
Iceland



Gurtej Sandhu
Micron Technology
United States



Ruggero Maria Santilli
Hadronic
Technologies
Corporation
United States



Verônica Scarpini Candido
Federal University of
Pará
Brazil



Daniel Shanley
Hunton Andrews
Kurth LLP
United States



Dan Shechtman
Technion
Israel



Raman Singh
Monash University
Australia



Sukhmander Singh
Santa Clara
University
United States



Steven Stevenson
Purdue University
(Fort Wayne)
United States



Ephraim Suhir
Bell Laboratories,
Murray Hill, NJ
United States



Peter Swaan
University of
Florida
United States



Setsuhisa Tanabe
Kyoto University
Japan



Keyong Tang
Zhengzhou
University
China



Marcel Tanner
Swiss Academy of
Arts and Sciences
Switzerland



Hassan Tarabishi
Somicon Industrial
United Arab
Emirates



**Nektarios
Tavernarakis**
Chair, EIT Governing
Board (European
Institute of Innovation
& Technology)
Greece



Nguyen Nhu Thanh
Leather&Shoes
Research Institute
Vietnam



Sabu Thomas
Mahatma Gandhi
University
India



Tomas Torres
U. Autonoma de
Madrid
Spain



Nguyen Tran
Directeur de l'Ecole
de Chirurgie - HVL
France



Erik Trell
Linkoping University
Sweden



Alain Tressaud
ICMCB-CNRS,
University Bordeaux
France



**Panteleimon
Trikalitis**
University of Crete
Greece



Patrizia Trovalusci
University di Roma
La Sapienza
Italy



Vladimir Tsepelev
Boris Yeltsin Ural
Federal University
Russian Federation



Tamer Turna
Bloom Energy
Corporation
United States



Tateo Usui
Osaka University
Japan



Hardev Singh Virk
SGGS World
University Fatehgarh
Sahib
India



Thomas Vougiouklis
Democritus
University of Thrace
Greece



Zhi Wang
Dongying Fangyuan
China



Fuhui Wang
Northeastern
University
China



Sharon Webb
University of
Göttingen
Germany



Yan Yang
Chongqing
University
China



Rachid Yazami
KVI PTE LTD
Singapore



Julietta Yedoyan
FLOGEN
Technologies
Germany



Svetlana Yefremova
National Center on
Complex Processing
of Mineral Raw
Materials
Kazakhstan



Toshikazu Yoshikawa
Louis Pasteur Center
Japan



Michael Zaworotko
University of
Limerick
Ireland



**Abdurassul
Zharmenov**
National Center on
Complex
Processing of
Mineral Raw
Materials
Kazakhstan

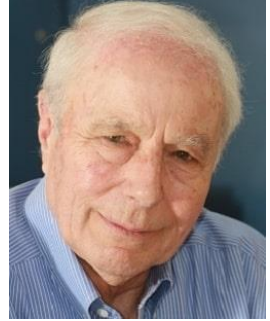
Contents

Organizer Logos	2
Organizer	2
Co-Organizer	2
Under The Auspices Of	2
Leadership Committee	5
Symposia Committees	5
Welcome Message.....	22
2024 Stars.....	24
Calendar of Events	25
Summit Plenary Schedule.....	27
Monday Schedule	31
Tuesday Schedule	33
Wednesday Schedule	35
Meeting Rooms Diagram.....	37
Map of the Hotel.....	38
International Committee.....	39
Sponsor List.....	43
Social Events	44
Summit Plenary	45
Scientific Program	51
Oral Presentations	51
Monday	51
Tuesday	85
Wednesday	116
Posters.....	143
Technical Program Authors Index	158
Co-Organizers and Sponsors Section	178
Government/Public Organizations	178
Corporations	179
Professional Societies.....	180
Partner Conferences.....	182

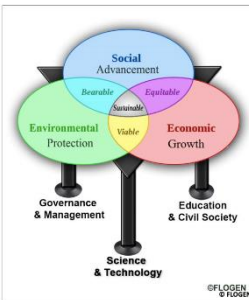
Academic Institutions.....	182
Media.....	183
Journals and Publishers	184
Travel Companies.....	186

Welcome Message

Welcome to Sustainability through Science and Technology / Sustainable Industrial Processing Summit (SIPS 2024), a yearly event **since 2003** that is deeply science-focused and industrial engineering-oriented, organized by the **not-for-profit corporation FLOGEN Stars Outreach** (www.flogen.org) and dedicated to achieving sustainability through science and technology.



The summit is based on the FLOGEN Sustainability Framework as described by Dr. Florian Kongoli in his opening Plenary Lecture at the **United Nations Meetings in Geneva** in February 2022 (<https://www.flogen.org/?p=33&an=2022&m=2>). It covers 3 sustainability pillars: (1) Science, Technology & Industry, (2) Governance & Management, and (3) Education & Civil Society as described in left side picture and in its corresponding publication: https://flogen.org/pdf/sips16_524FS.pdf.



SIPS incorporates summit plenary lectures from well-known speakers that address the link between scientific and engineering domains in the pursuit of sustainable development, as well as specific science and engineering symposia that feature scientific and technical presentations with the same goals in mind. SIPS Publications over the years are indexed in Google Scholar, where we have more than 3600 records (<https://rb.gy/de0dyk>) and Google Scholar Citation Indexes to our publications are: h-index=38 and i10-index=182 (<https://rb.gy/zc2qri>)

The summit simultaneously incorporates numerous International Symposia covering the fields of: oxidative stress; medical innovations; green chemistry and polymers; physical chemistry; solid state chemistry; solution chemistry; electrochemistry; molten salt and ionic liquids; advanced materials; advanced manufacturing; advanced technologies; iron and steel making; aluminum; batteries; bio-extraction; cement; coal; coatings; composites; ceramics; ecosystems; education; energy production; environment; ferro-alloys; mathematics; metallic systems; metals and alloys; minerals; mining; multiscale materials; nanomaterials; non-ferrous smelting and hydro/electrochemical processing; quasi-crystals; rare earth and platinum group metals; recycling; rotary kiln operations; glass; pharmaceutical sciences; endourology; and agroforestry. The topics within each symposium span across scientific, technological, environmental, health, legal, management, financial, policy, taxation, social, and pedagogical issues.

We wish you a successful meeting, and please enjoy our special VIP lectures from our Nobel Prize winners.

Dr. Florian Kongoli
SIPS President
Chairman
FLOGEN Stars Outreach
www.flogen.org
fkongoli@flogen.org

CEO
FLOGEN Technologies Inc.
(USA/Canada)
www.flogen.com
fkongoli@flogen.com



2024 Stars



Prof. Koji **Abe**



Prof. Georgios
Anastassakis



Attorney Dr. Migen
Dibra



Prof. Mercouri
Kanatzidis



Mr. Sergio **Leite**



Prof. Hans
Leuenberger



Prof. Janusz
Lipkowski



Prof. Sergio
Monteiro



Prof. Sener **Otkik**



Prof. Nancy **Ross**



Prof. Peter
Rowlands



Prof. Ludwig
Schultz



Prof. Michael **Stelter**

Calendar of Events

Sun. 20 Oct. 2024	14:00-18:00	SUMMIT REGISTRATION									
	19:00-23:00	WELCOMING INFORMAL DINNER & ENTERTAINMENT - H2O POOL AREA (OUTDOOR)									
	Room	Room 1	Room 2	Room 3	Room 4	Room 5	Room 6	Room 7	Room 8	Room 9	Room 10
	Level	Marika A Reception Bldg - 1 Floor	Marika B1 Reception Bldg - 1 Floor	Marika B2 Reception Bldg - 1 Floor	Minos Ground Floor	Lida Ground Floor	Knossos Ground Floor	Ariadni A Ground Floor	Ariadni B Ground Floor	Ariadni C Ground Floor	Dazzle D. Ground Floor
Mon. 21 Oct. 2024	08:00-12:00	SUMMIT PLENARY - MARIKA A Ballroom									
	12:00-13:00	LUNCH/POSTERS/EXHIBITION - Red Pepper									
	13:00-14:20	Oxidative 1	Geochemistry 1	Mathematics 1	Laws 1	Mineral 1	SISAM 1	SolidStateChemistry 1	Composite 1	Iron 1	Environmental 1
	14:20-14:25	POSTERS/EXHIBITION - Ballroom Foyer									
	14:25-15:45	Oxidative 2	Geochemistry 2	Mathematics 2	Pharmaceutical 1	Mineral 2	SISAM 2	SolidStateChemistry 2	Composite 2	Iron 2	Recycling 1
	15:45-16:05	COFFEE BREAK/POSTERS/EXHIBITION - Ballroom Foyer									
	16:05-17:25	Oxidative 3	Geochemistry 3	Glass 1	Laws 2	Mineral 3	SISAM 3	SolidStateChemistry 3	Composite 3	Iron 3	Recycling 2
	17:25-17:30	POSTERS/EXHIBITION - Ballroom Foyer									
	17:30-18:50	Oxidative 4	Geochemistry 4	Glass 2	Laws 3	Mineral 4	SISAM 4	SolidStateChemistry 4	Composite 4	Iron 4	Recycling 3
	19:30-23:30	THEME BUFFET DINNER & SHOW - Secret Garden (outdoor)									
Tue. 22 Oct. 2024	08:00-12:00	SUMMIT PLENARY - MARIKA A Ballroom									
	12:00-13:00	LUNCH/POSTERS/EXHIBITION - Red Pepper									
	13:00-14:20	Oxidative 5	Physical 1	Mathematics 3	Pharmaceutical 2	Nonferrous 1	SISAM 5	SolidStateChemistry 5	AdvancedMaterials 1	Iron 5	Biochar 1
	14:20-14:25	POSTERS/EXHIBITION - Ballroom Foyer									
	14:25-15:45	Oxidative 6	Molten 1	Mathematics 4	Laws 4	Nonferrous 2	SISAM 6	SolidStateChemistry 6	AdvancedMaterials 2	Iron 6	Biochar 2
	15:45-16:05	COFFEE BREAK/POSTERS/EXHIBITION - Ballroom Foyer									

	16:05-17:25	ROUND TABLE	ROUND TABLE	Mathematics 5	Pharmaceutical 3	Nonferrous 3	SISAM 7	SolidStateChemistry 7	AdvancedMaterials 3	Energy 1	Construction 1
	17:25-17:30	POSTERS/EXHIBITION - Ballroom Foyer									
	17:30-18:50	ROUND TABLE	ROUND TABLE	ROUND TABLE	Pharmaceutical 4	Nonferrous 4	SISAM 8	SolidStateChemistry 8	AdvancedMaterials 4 Magnesium 1	Energy 2	Construction 2
	20:00-00:00	GALA DINNER/AWARDS CEREMONY/SHOW - Marika A Ballroom									
	08:00-12:00	SUMMIT PLENARY - MARIKA A Ballroom									
	12:00-13:00	LUNCH/POSTERS/EXHIBITION - Red Pepper									
	13:00-14:20	Medicine 1	Physical 2	Glass 3	Pharmaceutical 5	Mineral 5	SISAM 9	SolidStateChemistry 9	AdvancedMaterials 5	Energy 3	Carbon 1
	14:20-14:25	POSTERS/EXHIBITION - Ballroom Foyer									
	14:25-15:45	Medicine 2	Physical 3	Glass 4	Laws 5	Mineral 6	SISAM 10	SolidStateChemistry 10	AdvancedMaterials 6	Battery 1	Carbon 2
	15:45-16:05	COFFEE BREAK/POSTERS/EXHIBITION - Ballroom Foyer									
Wed. 23 Oct. 2024	16:05-17:25	ROUND TABLE	ROUND TABLE	Mathematics 6	Pharmaceutical 6	Mineral 7	SISAM 11	SolidStateChemistry 11	AdvancedMaterials 7	Energy 4	Environmental 2
	17:25-17:30	POSTERS/EXHIBITION - Ballroom Foyer									
	17:30-18:50	ROUND TABLE	ROUND TABLE	Mathematics 7	Laws 6	Mineral 8	SISAM 12	SolidStateChemistry 12	Manufacturing 1	ROUND TABLE	ROUND TABLE
	19:30-23:30	FREE EVENING WITH INDIVIDUAL DINNERS AT THE HOTEL									

Summit Plenary Schedule

		Room 1
		Marika A - Summit Plenary
		Reception Bldg - 1 Floor
Mon. 21 Oct. 2024	08:00	<p>466 FLOGEN SUSTAINABILITY FRAMEWORK - PART 1 F. Kongoli FLOGEN Star OUTREACH, Montreal, Canada OS</p>
	08:20	<p>406 HYPOXIA-INDUCIBLE FACTORS IN PHYSIOLOGY AND MEDICINE G. Semenza Johns Hopkins University, Baltimore, Maryland, United States OS</p>
	08:45	<p>470 ANTIOXIDANT THERAPY: BEYOND THE LIMITATION H. Inufusa Gifu University, Gifu, Japan OS</p>
	09:10	<p>465 THE DISCOVERY OF THE FUNDAMENTAL NEUROBIOLOGICAL MECHANISM BEHIND 4E-BP2 PROTEIN DEAMIDATION AND ITS IMPACT ON CURING NEURODEGENERATIVE DISEASES D. Joseph McGill University, Montreal, Canada; FLOGEN Technologies, Montreal, Canada OS</p>
	09:35	<p>445 TOWARDS MicroRNA-BASED CANCER MEDICINE F. Slack BIDMC/Harvard Medical School, Boston, United States OS</p>
	10:00	COFFEE BREAK/POSTERS/EXHIBITION - Ballroom Foyer
	10:20	<p>430 THE INFLUENCE OF FUNDAMENTAL RESEARCH ON INNOVATION WITHIN HEALTH-RELATED SECTORS A. Hershko Technion Institute of Technology, Haifa, Israel OS</p>
	10:45	<p>491 INTERNATIONAL UNIT OF ENVIRONMENTAL MEDIATION L. Otis NATO and OECD, Montreal, Canada OS</p>

	11:10	494 AN INSPIRATIONAL BUSINESS SUCCESS STORY - AN OVERVIEW OF YILDIRIM HOLDING Y. Kaya Yilmaden Holding, Istanbul, Turkey; Yilmaden Holding A.Ş., Elazig, Turkey OS
	11:35	436 ŞİŞECAM'S GLOBAL FOOTPRINT: PIONEERING A SUSTAINABLE TOMORROW B. Büyükfırat Şişecam, Istanbul, Turkey OS
	12:00	LUNCH/POSTERS/EXHIBITION - Ballroom Foyer
Tue, 22 Oct. 2024	08:00	530 FLOGEN SUSTAINABILITY FRAMEWORK - PART 2 /THE CURRENT STATUS OF SCIENCE AND TECHNOLOGY, GOVERNANCE AND EDUCATION IN KOSOVO AND THEIR PERSPECTIVES GUIDED BY FLOGEN SUSTAINABILITY FRAMEWORK A. Nagavci Ministry of Education, Science, Technology and Innovation, Pristina, Kosovo OS
	08:20	435 HEPATITIS C: THE END OF THE BEGINNING AND POSSIBLY THE BEGINNING OF THE END H. J. Alter National Institutes of Health, Bethesda, United States OS
	08:45	440 LEGISLATIVE INNOVATION AND SUSTAINABLE DEVELOPMENT P. Da Silva Moraes Câmara Municipal de Nova Friburgo, Nova Friburgo, Brazil OS
	09:10	508 FLOGEN SUSTAINABILITY FRAMEWORK APPLIED TO AGROFORESTRY M. Linhares Atlantica Green Tech, Rio de Janeiro, Brazil OS
	09:35	511 STRATEGIC GOVERNMENT PLANNING: THE FOUNDATION FOR SUSTAINABLE DEVELOPMENT IN THE STATE OF RIO DE JANEIRO A. Meyohas Secretary at the Civil House of the State of Rio de Janeiro, Representing the Governor of Rio de Janeiro, Rio de Janeiro, Brazil OS
	10:00	COFFEE BREAK/POSTERS/EXHIBITION - Ballroom Foyer
	10:20	439 SUSTAINABLE USE OF WATER RESOURCES D. Shechtman Technion, Haifa, Israel OS
	10:45	433 STEPS TOWARDS COMPLEX MATTER: CHEMISTRY ! J. Lehn

		University of Strasbourg, Strasbourg, France OS
	11:10	500 KGHM SUCSESSES IN THE ENVIRONMENTAL PROTECTIONS, ECONOMIC GROWTH AND SOCIAL DEVELOPMENT THROUGH SOUND GOVERNANCE AND MANAGEMENT, SCIENCE AND TECHNOLOGY AND EDUCATION A. Szydlo KGHM, Lubin, Poland OS
	11:35	128 A LOOK AT THE US ILLICIT FENTANYL HOLOCAUST THROUGH THE LENS OF SUSTAINABILITY D. Nelson University of Oklahoma, Oklahoma, United States OS
	12:00	LUNCH/POSTERS/EXHIBITION - Ballroom Foyer
Wed. 23 Oct. 2024	08:00	468 FLOGEN SUSTAINABILITY FRAMEWORK - PART 3 F. Kongoli FLOGEN Star OUTREACH, Montreal, Canada OS
	08:20	507 THEORY GUIDED BY EXPERIMENT AND BY CONNECTING THE DOTS R. Marcus California Institute of Technology, California, United States OS
	08:45	454 THE MOLECULAR LINKS BETWEEN AGEING AND NEURODEGENERATION N. Tavernarakis Chair, EIT Governing Board (European Institute of Innovation & Technology), Heraklion, Greece OS
	09:10	510 MATHEMATICAL AND STATISTICAL ANALYSIS OF DATA FOR SOUND SCIENTIFIC DISCOVERIES S. Berger Data Scientist and Consultant, Costa Mesa, United States OS
	09:35	505 PARAGUAY AS AN EMERGING MINING JURISDICTION: URANIUM EXPLORATION & GEOPOLITICAL CONTEXT E. Hersh Luna Energy Ltd., Nevada, United States OS
	10:00	COFFEE BREAK/POSTERS/EXHIBITION - Ballroom Foyer
	10:20	460 MATERIALS FOR THE FUTURE K. Novoselov National University, Singapore OS

	10:45	<p>394 KEEPING A VEGETABLE GARDEN IN AN AREA SURROUNDED BY WILDLIFE – A PERSONAL PERSPECTIVE OF SUSTAINABILITY J. Frank Columbia University, New York, United States OS</p>
	11:10	<p>418 BIOETHICAL CHALLENGES IN MEDICINE A. Ciechanover Technion-Israel Institute of Technology, Haifa, Israel OS</p>
	11:35	<p>429 PUTTING LIFE MOLECULES IN PERSPECTIVE: THE HISTORY OF DNA, RNA, AND PROTEINS K. Wuthrich ETH Zurich Switzerland and Scripps Research, USA, Switzerland OS</p>
	12:00	LUNCH/POSTERS/EXHIBITION - Ballroom Foyer

Monday Schedule

Symposium	Oxidative (Abe)	Geochemistry (Ross)	Mathematics (Rowlands)	Laws (Dibra)	Mineral (Anastassakis)	SISAM (Schultz)	SolidStateChemistry (Kanatzidis)	Composite (Monteiro)	Iron (Leite)	Environmental	
			Glass (Oktik)	Pharmaceutical (Leuenberger)						Recycling	
	Room 1	Room 2	Room 3	Room 4	Room 5	Room 6	Room 7	Room 8	Room 9	Room 10	
	Marika A	Marika B1	Marika B2	Minos	Lida	Knossos	Ariadni A	Ariadni B	Ariadni C	Dazzle D.	
	Reception Bldg - 1 Floor	Reception Bldg - 1 Floor	Reception Bldg - 1 Floor	Ground Floor	Ground Floor	Ground Floor	Ground Floor	Ground Floor	Ground Floor	Ground Floor	
Mon. 21 Oct. 2024	08:00	SUMMIT PLENARY - Marika A Ballroom									
	12:00	LUNCH/POSTERS/EXHIBITION - Red Pepper									
	13:00	453 K. Abe OL-P	264 N. Ross OS-P	137 P. Rowlands OS-P	153 F. Kongoli OS	501 G. Anastassakis OS	107 L. Schultz OS-P	473 M. Kanatzidis OS-P	509 S. Monteiro OS-P	498 S. Leite De Andrade OS-P	231 C. Merchant OL
	13:20	122 Y. Harakawa OS-K	31 A. Navrotsky OS-P	160 G. Ord OS	381 S. Berger OS	497 G. Anastassakis OS-P	477 L. Schultz OS-P	155 K. Choi OS-K	475 H. Lopera OS-K	338 M. De Campos OS-K	524 C. Merchant OL
	13:40	124 S. Hirano OS-P	85 L. Bonatti OS	426 M. Mikalajunas OS	152 H. Inufusa OS-P	502 P. Tzeferis OL-P	165 R. Schaefer OS-K	283 J. Even OS-K	15 M. Khumalo OS-K	311 M. De Campos OS	44 A. Osmeni OS
	14:00	67 E. Trushina OS-K	109 S. Dietrich OS	262 M. Moulay OS	87 S. Teramoto OS	476 C. Kavalopoulos OS-P	478 R. Schaefer OS-K	284 T. Mori OS-K	166 A. Christoforo OS	116 G. Mahobia OS-I	516 M. De Campos OS
	14:20	POSTERS/EXHIBITION - Ballroom Foyer									
	14:25	120 H. Inufusa OS-P	144 M. Householder OS	310 L. Kauffman OS	324 H. Leuenberger OS-P	493 I. Michalakis OS-P	56 A. Zhukov OS-I	241 V. Dravid OS-I	388 H. Lopera OS-I	5 A. Dmitriev OS	469 K. Kolomaznik OL
	14:45	367 F. Kongoli OS-P	383 W. Kriven OS	111 J. Watson OS	506 H. Leuenberger OS	499 S. Papaethymiou OS	328 P. Jenus OS-I	325 T. Kyratsi OS	191 C. De Paula Dias OS	6 A. Dmitriev OS	463 K. Tang OL
	15:05	86 K. Fujiwara OS-K	401 L. Dobrzhinetzkaya OS	441 J. Watson OS	327 N. Schwarzer OS-P	187 P. Angelopoulos OS	134 U. Schwarz OS-I	195 O. Yaffe OS-I	192 D. Silva OS	333 J. De Castro OS	464 F. Wang OL
	15:25	97 Y. Sugiyama OS-K	275 B. De Vivo OS	80 S. Sargoytchev OL	462 N. Schwarzer OS-P	417 H. Muñiz Sierra OS	198 P. Fischer OS-I	189 A. Tressaud OS-P	252 M. Oliveira OS	335 J. De Castro OS	123 J. Liu OS
	15:45	COFFEE BREAK/POSTERS/EXHIBITION - Ballroom Foyer									

16:05	142 K. Fukui OS-K	503 Z. Liu OL-K	437 B. Büyükkırat OS-P	366 B. Romagnolo OS	337 E. Evangelou OS	186 M. Coey OS-K	277 S. Chirambatte Peter OS-I	211 T. Jacintho Lopes OS	34 A. Upolovnikova OS-K	180 Q. Chen OS
16:25	118 H. Inufusa OS-K	421 R. Hemley OS-P	449 S. Oktik OS-P	298 S. Lizzio OL	332 M. Frousiou OS	479 M. Coey OS-K	309 K. Biswas OS-I	212 T. Jacintho Lopes OS	41 B. Topalle OS-K	58 M. Zhang OS
16:45	119 F. Yang OS-I	232 T. Hess OS-K	525 S. Oktik OS	148 M. McNeil OL	28 Z. Zhang OS-K	95 C. Burkhardt OS-K	299 J. He OS	219 A. Machado De Azevedo OS	40 A. Babenko OS	342 J. Li OL
17:05	88 K. Fujiwara OS-I	410 G. Artioli OS	526 S. Oktik OS	362 M. Lili-Kokkori OS	103 V. Andric OS-I	480 C. Burkhardt OS-K	446 L. Chen OS-I	206 T. Jacintho Lopes OS	113 D. Santos OS	22 S. Murugan OS
17:25	POSTERS/EXHIBITION - Ballroom Foyer									
17:30	121 Y. Harakawa OS-I	260 M. Alvaro OL	25 P. Simurka OS	358 P. Cortes OL-K	300 V. Dova OS	37 H. Fecht OL-K	349 M. G N OS-I	272 M. Fraga Silva OS	115 D. Coura OS	376 I. Diniz OS
17:50	125 S. Hirano OS-I	161 G. Gatta OS	39 C. Roos OL-K	359 P. Cortes OL-I	239 I. A.S. de Brum OS	481 H. Fecht OL-K	312 B. Hunter OS-I	353 T. Jacintho Lopes OS	197 B. Mohanty OS	377 I. Diniz OS
18:10	Round Table	164 D. Feng OS	181 Z. Jiang OS	519 M. De Campos OS	364 S. Tampouris OS	Round Table	35 E. Djurado OS-K	512 M. Meyers OS	75 D. Patil OS	280 I. Niebedim OS
18:30	Round Table	Round Table	94 N. Xue OS	431 M. Cohen OS	255 T. Aleksandrova OS-P	Round Table	496 V. Karagianni OS	518 M. De Campos OS	Round Table	Round Table
19:30	THEME BUFFET DINNER & SHOW - Secret Garden (outdoor)									

Tuesday Schedule

Symposium	Oxidative (Abe)	Physical (Lipkowski)	Mathematics (Rowlands)	Pharmaceutical (Leuenberger)	Nonferrous (Stelter)	SISAM (Schultz)	SolidStateChemistry (Kanatidis)	AdvancedMaterials	Iron (Leite)	Biochar	
	Room 1	Room 2	Room 3	Room 4	Room 5	Room 6	Room 7	Room 8	Room 9	Room 10	
	Marika A	Marika B1	Marika B2	Minos	Lida	Knossos	Ariadni A	Ariadni B	Ariadni C	Dazzle D.	
	Reception Bldg - 1 Floor	Reception Bldg - 1 Floor	Reception Bldg - 1 Floor	Ground Floor	Ground Floor	Ground Floor	Ground Floor	Ground Floor	Ground Floor	Ground Floor	
Tue. 22 Oct. 2024	08:00	SUMMIT PLENARY - Marika A Ballroom									
	12:00	LUNCH/POSTERS/EXHIBITION - Red Pepper									
	13:00	117 F. Yang OS-K	73 J. Lipkowski OS-P	139 E. Trel OL	204 I. Karim OS	82 J. Chaulet OS-I	140 A. Inoue OL-K	24 M. Kovalenko OS-K	368 F. Marquis OS	233 G. Araujo Gois OS	458 H. Kua OS
	13:20	143 K. Fukui OS-I	263 B. Palosz OS-K	193 S. Georgiev OS-K	339 H. Tarabishi OS	132 S. Steinechner OS-I	482 A. Inoue OS-K	386 R. Tenne OS-P	398 T. Prikhna OS	235 G. Araujo Gois OS	380 A. Kiani OS
	13:40	147 Y. Sugiyama OS-I	55 K. Woźniak OS	106 M. Lazar OS	534 V. Von Tscharner OL	133 T. Howard OS-I	76 J. Eckert OS-K	346 R. Seshadri OS-P	159 S. Khanna OS	236 G. Araujo Gois OS	451 M. Afzal OS
	14:00	158 H. Inufusa OS-K	96 A. Szytuła OL	84 E. Agiasofitou OS	83 K. Simpson OS	183 L. Felkl OS-K	483 J. Eckert OS-K	344 A. Mohite OS-P	32 Y. Jiang OL	265 G. Araujo Gois OS	291 H. El Zanfaly OS
	14:20	POSTERS/EXHIBITION - Ballroom Foyer									
	14:25	317 Y. Sato OS-I	428 A. Henni OS	513 M. Mikalajunas OS	395 G. Kotlidas OL	203 B. Fankhänel OS-I	77 S. Kobe OS-I	63 M. Kovalenko OS-P	409 T. Prikhna OS	268 L. Leite OS	53 D. Mcavoy OS
	14:45	18 R. Reiter OS-K	7 R. Gardas OS-K	514 M. Mikalajunas OS	295 B. Rrecaj OS-I	226 P. Schönherr OS-K	64 V. Zhukova OS-I	156 W. Queen OS-K	52 A. Manataki OS	322 N. Balzana Anacleto OS	229 G. Reyes-Moreno OS
	15:05	194 N. Serakinci OS-I	43 D. Pal Singh OS	293 J. Torday OL	54 S. Almog OS-K	237 V. Palavos- Chesper OS-I	287 M. De Campos OS-I	319 A. Tasiopoulos OS-I	407 T. Prikhna OS	370 D. Coura OS-K	294 S. Sivaramkrishnan OS
	15:25	23 M. Kussmann OL-I	Round Table	313 J. Torday OL	279 M. Towhid OL	242 J. Romero OS-K	131 U. Schwarz OS-I	402 C. Wolverton OS-I	112 X. Zheng OL	Round Table	Round Table
	15:45	COFFEE BREAK/POSTERS/EXHIBITION - Ballroom Foyer									

16:05	Round Table	Round Table	316 Y. Degefu OS	205 I. Karim OS	303 S. Kwegyir OS-I	393 M. Zehetbauer OS-K	323 M. Ibáñez OS	420 T. Prikhna OS	196 H. Dodds OS	459 H. Kua OS
16:25	Round Table	Round Table	Round Table	391 H. Tarabishi OS	360 O. Mishina OS-I	484 M. Zehetbauer OS-K	384 F. Quochi OS	427 A. Henni OS	288 M. De Campos OS	456 H. Kua OS
16:45	Round Table	Round Table	Round Table	101 M. Bultmann OS	92 H. Liu OS	100 S. Sturm OS-K	315 I. Hadar OS-I	270 N. Chikhradze OS	29 F. Moon OL-K	457 H. Kua OS
17:05	Round Table	Round Table	Round Table	167 G. Kimura OS	492 J. Romero OS	485 S. Sturm OS-K	340 D. Marongiu OS-I	105 K. Swierczek OS	10 L. An OS-K	91 J. Huang OS
17:25	POSTERS/EXHIBITION - Ballroom Foyer									
17:30	Round Table	Round Table	Round Table	243 I. Karim OS	110 A. Hiott OS	188 B. Rellinghaus OS-K	448 L. Wu OS-I	523 M. De Campos OS	392 J. Milewski OS	471 S. Zhang OL
17:50	Round Table	Round Table	Round Table	521 M. Jordi-Koi OS	326 D. Vogt OS-P	486 B. Rellinghaus OS-K	228 O. Farha OS-I	522 M. De Campos OS	66 S. Amantia OS	214 U. Ali OS
18:10	Round Table	Round Table	Round Table	145 L. Eskin OS	472 A. Voigt OS	517 M. De Campos OS	Round Table	348 Y. Yang OS	535 N. Bajcinca OS	334 M. Farooq OS
18:30	Round Table	Round Table	Round Table	274 F. Comunetti OL	70 E. Felipe OS-I	Round Table	Round Table	347 X. Peng OS	Round Table	Round Table
20:00	GALA DINNER/AWARDS CEREMONY/SHOW - Marika A Ballroom									

Wednesday Schedule

Symposium	Medicine	Physical (Lipkowski)	Glass (Oktik)	Pharmaceutical (Leuenberger)	Mineral (Anastassakis)	SISAM (Schultz)	SolidStateChemistry (Kanatzidis)	AdvancedMaterials	Energy	Carbon	
			Mathematics (Rowlands)	Laws (Dibra)				Manufacturing	Battery	Environmental	
	Room 1	Room 2	Room 3	Room 4	Room 5	Room 6	Room 7	Room 8	Room 9	Room 10	
	Marika A	Marika B1	Marika B2	Minos	Lida	Knossos	Ariadni A	Ariadni B	Ariadni C	Dazzle D.	
	Reception Bldg - 1 Floor	Reception Bldg - 1 Floor	Reception Bldg - 1 Floor	Ground Floor	Ground Floor	Ground Floor	Ground Floor	Ground Floor	Ground Floor	Ground Floor	
Wed. 23 Oct. 2024	08:00 SUMMIT PLENARY - Marika A Ballroom										
	12:00 LUNCH/POSTERS/EXHIBITION - Red Pepper										
	13:00	20 F. Fernandes OL	114 J. Saïda OS	238 A. Kanungo OS-K	42 S. Buchmann OS	127 Q. Zheng OS	399 A. Greer OS-K	285 C. Coperet OS-K	390 T. Prikhna OS	301 M. Rane- Fondacaro OS	276 J. Antrekowitsch OS-K
	13:20	19 F. Fernandes OL	415 S. Krylov OS	336 J. Kraxner OS-I	365 M. Kokornaczyk OS	278 C. Sequeira OL-P	487 A. Greer OS-K	345 F. Geiger OS-I	59 S. Woo OS	290 M. De Campos OS	271 G. Hanke OS-K
	13:40	16 K. Vasilev OS-K	48 L. Barbour OL	281 A. Ullah OS-K	341 M. Plitzko OS	68 D. Singh OL-K	57 R. Kirchheim OS-K	419 M. Armand OS-I	61 B. Chattopadhyay OS	208 C. Rangacharyulu OL-I	223 N. Meyer OS
	14:00	286 V. Egorov OS-K	45 R. Azmat OS	Round Table	379 D. Salazar Montero OS	254 L. Andric OL-K	488 R. Kirchheim OS-K	222 L. Mao OS-I	98 K. Li OS	461 V. Battaglia OS-K	224 N. Meyer OS
	14:20	POSTERS/EXHIBITION - Ballroom Foyer									
	14:25	104 V. Egorov OS	51 A. Saleem OS	99 D. Ryckelynck OS	141 W. Ferreira Santos Jr. OS	246 C. Petter OS-I	79 K. Zuzek OS-I	60 V. Egorov OS-K	405 T. Prikhna OS	292 F. Sultanov OS	176 S. Dhall OS
	14:45	Round Table	Round Table	49 A. Upmanyu OS	81 A. Andrade OS	249 M. Samouhos OS	47 M. Calin OS-I	321 Y. He OS-I	36 K. Teshima OS-K	175 S. Upreti OS-K	Round Table
	15:05	Round Table	Round Table	444 P. Lichvár OS	396 F. Kola Tafaj OS	8 J. Gavronski OS	240 B. Podmiljsak OS-I	318 M. Kim OS-I	102 B. Fu OS	71 J. Molenda OS	Round Table
	15:25	Round Table	Round Table	Round Table	234 G. Araujo Gois OS	248 C. Petter OS	126 M. Komelj OS-I	397 Y. Jung OS-K	267 A. Turlybekuly OS	230 S. Sokhanvaran OS	Round Table
	15:45	COFFEE BREAK/POSTERS/EXHIBITION - Ballroom Foyer									

16:05	Round Table	Round Table	474 M. Johnson OL	408 N. Menshutina OS	12 O. Lahav OS	74 T. Tomše OS-I	351 I. Chung OS-I	282 A. Srinivasan OS	62 A. Amarasekara OS	330 I. Kibona OS
16:25	Round Table	Round Table	443 T. Yarman OL	352 H. Tarabishi OS	350 R. Basalawmoit OS	489 T. Tomše OS-I	201 P. Trikalitis OS-I	387 A. Sajid OS	Round Table	202 T. Gebre OS
16:45	Round Table	Round Table	331 I. Kibona OS	72 A. Winkler OS	361 P. Chatzantourian OS	378 C. Teichert OS-I	495 G. Armatas OS	432 A. Zestos OS	Round Table	Round Table
17:05	Round Table	Round Table	373 J. Cantisán Gómez OS	Round Table	182 L. Sobral OS-I	89 J. Dubois OS-I	9 M. Martín-Gonzalez OS-I	Round Table	Round Table	Round Table
17:25	POSTERS/EXHIBITION - Ballroom Foyer									
17:30	Round Table	Round Table	38 A. Ramm OL-P	154 A. Kromiči OS	259 C. Roumpos OS-K	382 C. Koch OL-I	307 H. Lu OS	50 C. Dumanidis OS	Round Table	Round Table
17:50	Round Table	Round Table	529 A. Ramm OL-P	385 A. Hartmann- Piraudeau OS	425 A. Brodt OS	520 M. De Campos OS	375 M. Alario Franco OS	138 N. Balzana Anacleto OS	Round Table	Round Table
18:10	Round Table	Round Table	416 G. Chirume OS	369 T. Tonima OS	245 B. Tora OS-I	Round Table	Round Table	Round Table	Round Table	Round Table
18:30	Round Table	Round Table	Round Table	Round Table	256 N. Nikolaeva OS	Round Table	Round Table	Round Table	Round Table	Round Table
19:30	FREE EVENING WITH INDIVIDUAL DINNERS AT THE HOTEL									

Meeting Rooms Diagram



Map of the Hotel



■ Out Of The Blue, BEACH RESORT
■ Out Of The Blue, LIFESTYLE & EXCLUSIVE COLLECTION



International Committee

This summit is being organized by an international committee spanning six continents and representing major industrial ferrous, nonferrous, materials and recycling companies as well as universities from around the world.



AFRICA

- **Chung Tae Kim**, Addis Ababa Science and Technology University, Ethiopia

ASIA

- **Farman Ahmed**, FMRRRC/P.C.S.I.R., Pakistan
- **Paul Butterworth**, CRU International, Singapore
- **Lijie Guo**, University of Toronto, Canada
- **Yoshihisa Hayakawa**, Rikkyo University, Japan
- **Wei-Hua Huang**, Wuhan University, China
- **Haruhiko Inufusa**, TIMA Japan & Gifu University, Japan
- **Yoshihito Kawamura**, Kumamoto University, Japan
- **Shuji Kitayama**, Kobe Steel, Japan
- **Hirokazu Konishi**, Osaka University, Japan
- **Lang Liu**, Xi'an University, China
- **Akinori Murao**, JFE Steel Corporation, Japan
- **Seiji Nomura**, Nippon Steel Corp., Japan
- **Takahiko Okura**, Ehime University, Japan
- **Hideki Ono**, University of Toyama, Japan
- **R. M. Gamini Rajapakse**, University of Peradeniya, Sri Lanka
- **Koji Saito**, Nippon Steel, Japan
- **Kazuhiro Seto**, JFE Steel Corporation, Japan
- **Donald Shih**, Magnesium Research Center, Kumamoto University, Japan
- **Yuichi Shimakawa**, Kyoto University, Japan

- **Mikio Takano**, Okayama/Kyoto, Japan
- **Keyong Tang**, Zhengzhou University, China
- **Jun-Ichi Tani**, Nippon Steel Corp., Japan
- **Nguyen Nhu Thanh**, Leather&Shoes Research Institute, Vietnam
- **Sabu Thomas**, Mahatma Gandhi University, India
- **Zhi Wang**, Dongying Fangyuan, China
- **Toshikazu Yoshikawa**, Louis Pasteur Center, Japan
- **Masahiro Yoshizawa-Fujita**, Sophia University, Japan

AUSTRALIA

- **Raj Das**, RMIT University in Australia, Australia
- **Nasser Khalili**, UNSW, Australia
- **Liming Lu**, CSIRO, Australia
- **Douglas Macfarlane**, Monash University, Australia
- **Krishnaveni Venkidusamy**, University of South Australia, Australia

EUROPE

- **Elias Aifantis**, Aristotle University of Thessaloniki, Greece
- **Shumskiy Viktor Alexandrovich**, Science in the area of metallurgy, Kazakhstan
- **Christian Andre Amatore**, CNRS & PSL, French Academy of Sciences, France
- **Juergen Antrekowitsch**, Christian Doppler Laboratory, Austria
- **Michaela Barinova**, Tomas Bata University in Zlin, Czech Republic
- **Mariana Calin**, IFW Dresden, Germany
- **Claudio Capiglia**, Reliance Industries Limited, India
- **Nikoloz Chikhradze**, G. Tsulukidze Mining Institute, Georgia
- **Andrey Dmitriev**, Institute of Metallurgy of the Ural Branch of the Russian Academy of Sciences, Russian Federation
- **Jean-Marie Dubois**, Institut Jean Lamour, France
- **Jean Etourneau**, University of Bordeaux, France
- **Rasmus Fehrmann**, DTU, Denmark
- **Maarten Geerdes**, Geerdes Advies, Netherlands
- **Dyubanov Valeriy Grigorievich**, Baykov Metallurgy & Materials Institute, Russian Federation
- **Leontyev Leopold Igoryevich**, Russian Academy of Sciences, Russian Federation
- **Soteris Kalogirou**, Cyprus University of Technology, Cyprus

- **Spomenka Kobe**, Jožef Stefan Institute, Slovenia
- **Vasant Kumar**, University of Cambridge, United Kingdom
- **Alois Loidl**, Institute of Physics, University of Augsburg, Germany
- **Rodrigo Martins**, CEMOP/UNINOVA, Portugal
- **Manfred Mauntz**, cmc Instruments GmbH, Germany
- **Hasan Ozgunay**, Ege University, Turkey
- **Ioannis Paspaliaris**, National Technical University of Athens, Greece
- **Francesco Pesavento**, University of Padova, Italy
- **Tetiana Prikhna**, V. Bakul Institute NASU, Ukraine
- **Bernard Raveau**, University of Caen, France
- **Gudrun Saevarsdottir**, Reykjavik University, Iceland
- **Henrik Saxen**, Abo Akademi University, Finland
- **Igor Startsev**, VNIItsvetmet, Kazakhstan
- **Harry Van Goor**, UMCG, Netherlands
- **Tarasov Andrey Vladimirovich**, Gintsvetmet Institute, Russian Federation
- **Lothar Wondraczek**, Friedrich Schiller University Jena, Germany
- **Yuanzheng Yue**, Aalborg University, Denmark

NORTH AMERICA

- **Katerina Aifantis**, University of Florida, United States
- **Antoine Allanore**, Massachusetts Institute of Technology, United States
- **Greg Baiden**, Penguin Automated Systems Inc., Canada
- **Douglas Bammann**, Mississippi State University, United States
- **Mike Baskes**, Mississippi State University, United States
- **David Carey**, Bear Metallurgical Company, United States
- **Harold Dodds**, University of Tennessee, United States
- **David Dzombak**, Carnegie Mellon University(CMU), United States
- **Yakov Gordon**, Hatch, Canada
- **Michael Grant**, Air Liquide, Germany
- **J. Brian Jordon**, The University of Alabama, United States
- **Stewart Lewis**, Pyramid Polymers LLC, United States
- **Dennis Lu**, ArcelorMittal, United States
- **Fernand D. S. Marquis**, United Nano Technologies (UNT) & Integrated Materials Technologies and Systems (IMTS), United States
- **Stephen Miller**, University of Florida, United States
- **Nathaniel Morgan**, Los Alamos National Lab, United States
- **Kenneth Poepelmeier**, Northwestern University, United States
- **Raj Prabhu**, Mississippi State University, United States
- **Arunachalam Rajendran**, University of Mississippi, United States

- **Hong Yong Sohn**, University of Utah, United States
- **Ponisseril Somasundaran**, Columbia University, United States
- **Ephraim Suhir**, Bell Laboratories, Murray Hill, NJ, United States
- **Tamer Turna**, Bloom Energy Corporation, United States

SOUTH AMERICA

- **Paulo Assis**, Universidade Federal de Ouro Preto, Brazil
- **Marcos De Campos**, Federal Fluminense University, Brazil
- **Jairton Dupont**, UFRGS, Brazil
- **Mery-Cecilia Gomez Marroquin**, National University of Engineering, Peru
- **Joao Ricardo Ribas**, Hospital Miguel Couto, Brazil
- **Erivelto Souza**, Federal University of São João Del Rei, Brazil

Sponsor List

Government/Public Organizations

- ONRG
- Region of Crete
- Hellenic Ministry of Environment and Energy
- Gorceix

Corporations

- FLOGEN Technologies Inc.
- TIMA
- Larco
- Hellas Gold
- Gerdau

Professional Societies

- American Chemical Society
- GDMB Gesellschaft der Metallurgen und Bergleute e. V.
- Institute for Technology of Nuclear and Other Mineral Raw Materials
- Mining Institute Ltd. Belgrade
- Greek Mining Enterprises Association
- Hellenic Survey of Geology & Mineral Exploration

Partner Conferences

- XVI International Mineral Processing And Recycling Conference (IMPRC)

Academic Institutions

- National Technical University of Athens
- Academy of Engineering Sciences of Serbia (AESS)
- University of Mining and Geology "St. Ivan Rilski"

Media

- MDPI - Sustainability Journal
- Main Event
- International Conference Alerts

Journals and Publishers

- Elsevier
- Journal of Mining and Metallurgy, Section A: Mining
- Recycling and Sustainable Development
- Sustainable Extraction and Processing of Raw Materials
- Journal of Magnesium and Alloys

Travel Companies

- Air Canada
- SkyTeam
- Air France-KLM
- Iberia
- Cathay Pacific
- Lufthansa Group
- Delta Air Lines
- Air Serbia
- United Airlines
- Emirates Airlines

Social Events

(Preliminary)

Sunday, 20 October: Welcoming Informal Dinner and Dancing/Entertainment show at Red Pepper (outdoor).

Attire: Casual or Business

Monday, 21 October: Buffet Dinner and Greek Night Dancing/Entertainment Show at Secret Garden (outdoor).

Attire: Casual or Business

Tuesday, 22 October: Gala Dinner and Awards Night, Full Course Meal & Dancing Show at Marika A Ballroom.

Attire: Formal Black Tie/Business

Wednesday 23 October: Free Evening with Individual Dinners at the Hotel

Attire: Casual

Thursday 24 October: Archeological Scientific Tours

- Knossos Palace and Koules Venetian fort organized Group tours as part of the program / Under negotiation with Archeological sites and tour companies - Will advise separately if arranged.
- Other Archeological Individual tours can be booked through the link found in the Recreational activities page:
<https://www.flogen.org/sips2024/page.php?p=41>

Other Archeological Individual tours can be booked through the link found in the Recreational activities page: <https://www.flogen.org/sips2024/page.php?p=41>

IMPORTANT NOTE: All attendees and guests must always keep their badges on, as they will be used to grant entry into all meals and activities. All accompanying guests must have registered and paid the fee, or they will be denied entry.

WARNING: The Organizing Committee reserves the right to modify/change or cancel the social activities without prior notice depending on the number of registrants in the web site for each activity.

Summit Plenary

(As of October 21, 2024 – subject to change)

SESSION: **SummitPlenaryMonAM**

Mon. 21 Oct. 2024

Room: **Marika A Ballroom**

Session Chair: Florian Kongoli

8:00: [SummitPlenaryMonAM01] OS

FLOGEN SUSTAINABILITY FRAMEWORK - PART 1

Florian Kongoli¹

¹FLOGEN Star OUTREACH, Montreal, Canada

Paper ID: 466

08:20: [SummitPlenaryMonAM02] OS

HYPOXIA-INDUCIBLE FACTORS IN PHYSIOLOGY AND MEDICINE

Gregg L. Semenza¹

¹Johns Hopkins University, Baltimore, Maryland, United States

Paper ID: 406

08:45: [SummitPlenaryMonAM03] OS

ANTIOXIDANT THERAPY: BEYOND THE LIMITATION

Haruhiko Inufusa¹

¹Gifu University, Gifu, Japan

Paper ID: 470

09:10: [SummitPlenaryMonAM04] OS

THE DISCOVERY OF THE FUNDAMENTAL NEUROBIOLOGICAL MECHANISM BEHIND 4E-BP2 PROTEIN DEAMIDATION AND ITS IMPACT ON CURING NEURODEGENERATIVE DISEASES

Davis Joseph^{1, 2}

¹McGill University, Montreal, Canada; ²FLOGEN Technologies, Montreal, Canada

Paper ID: 465

09:35: [SummitPlenaryMonAM05] OS

TOWARDS MicroRNA-BASED CANCER MEDICINE

Frank J. Slack¹

¹BIDMC/Harvard Medical School, Boston, United States

Paper ID: 445

10:00 COFFEE BREAK/POSTERS/EXHIBITION - Ballroom Foyer

10:20: [SummitPlenaryMonAM06] OS
THE INFLUENCE OF FUNDAMENTAL RESEARCH ON INNOVATION WITHIN HEALTH-RELATED SECTORS

Avram Hershko¹

¹Technion Institute of Technology, Haifa, Israel
Paper ID: 430

10:45: [SummitPlenaryMonAM07] OS
INTERNATIONAL UNIT OF ENVIRONMENTAL MEDIATION

Louise Otis¹

¹NATO and OECD, Montreal, Canada
Paper ID: 491

11:10: [SummitPlenaryMonAM08] OS
AN INSPIRATIONAL BUSINESS SUCCESS STORY - AN OVERVIEW OF YILDIRIM HOLDING

Mehmet Şevket Ero¹; **Yavuzhan Kaya**²

¹Yilmaden Holding, Istanbul, Turkey; ²Yilmaden Holding A.Ş., Elazığ, Turkey
Paper ID: 494

11:35: [SummitPlenaryMonAM09] OS
ŞİŞECAM'S GLOBAL FOOTPRINT: PIONEERING A SUSTAINABLE TOMORROW

Burak Büyükfırat¹

¹Şişecam, Istanbul, Turkey
Paper ID: 436

12:00 LUNCH/POSTERS/EXHIBITION - Red Pepper

SESSION: **SummitPlenaryTueAM**

Tue. 22 Oct. 2024

Room: **Marika A Ballroom**

Session Chair: Florian Kongoli

8:00: [SummitPlenaryTueAM01] OS

FLOGEN SUSTAINABILITY FRAMEWORK - PART 2 /THE CURRENT STATUS OF SCIENCE AND TECHNOLOGY, GOVERNANCE AND EDUCATION IN KOSOVO AND THEIR PERSPECTIVES GUIDED BY FLOGEN SUSTAINABILITY FRAMEWORK

Arbërie Nagavci¹; Bora Shpuza¹

¹Ministry of Education, Science, Technology and Innovation, Pristina, Kosovo

Paper ID: 530

08:20: [SummitPlenaryTueAM02] OS

HEPATITIS C: THE END OF THE BEGINNING AND POSSIBLY THE BEGINNING OF THE END

Harvey J. Alter¹

¹National Institutes of Health, Bethesda, United States

Paper ID: 435

08:45: [SummitPlenaryTueAM03] OS

LEGISLATIVE INNOVATION AND SUSTAINABLE DEVELOPMENT

Pierre Da Silva Moraes¹

¹Câmara Municipal de Nova Friburgo, Nova Friburgo, Brazil

Paper ID: 440

09:10: [SummitPlenaryTueAM04] OS

FLOGEN SUSTAINABILITY FRAMEWORK APPLIED TO AGROFORESTRY

Mario Linhares¹

¹Atlantica Green Tech, Rio de Janeiro, Brazil

Paper ID: 508

09:35: [SummitPlenaryTueAM05] OS

STRATEGIC GOVERNMENT PLANNING: THE FOUNDATION FOR SUSTAINABLE DEVELOPMENT IN THE STATE OF RIO DE JANEIRO

Alexandre Meyohas¹

¹Secretary at the Civil House of the State of Rio de Janeiro, Representing the Governor of Rio de Janeiro, Rio de Janeiro, Brazil

Paper ID: 511

10:00 COFFEE BREAK/POSTERS/EXHIBITION - Ballroom Foyer

10:20: [SummitPlenaryTueAM06] OS

SUSTAINABLE USE OF WATER RESOURCES

Dan Shechtman¹

¹Technion, Haifa, Israel

Paper ID: 439

© FLOGEN 2024

47 | www.flogen.org/sips2024

10:45: [SummitPlenaryTueAM07] OS

STEPS TOWARDS COMPLEX MATTER: CHEMISTRY !

Jean-Marie Lehn¹

¹University of Strasbourg, Strasbourg, France

Paper ID: 433

11:10: [SummitPlenaryTueAM08] OS

KGHM SUCCESSES IN THE ENVIRONMENTAL PROTECTIONS, ECONOMIC GROWTH AND SOCIAL DEVELOPMENT THROUGH SOUND GOVERNANCE AND MANAGEMENT, SCIENCE AND TECHNOLOGY AND EDUCATION

Andrzej Szydło¹

¹KGHM, Lubin, Poland

Paper ID: 500

11:35: [SummitPlenaryTueAM09] OS

A LOOK AT THE US ILLICIT FENTANYL HOLOCAUST THROUGH THE LENS OF SUSTAINABILITY

Donna Nelson¹

¹University of Oklahoma, Oklahoma, United States

Paper ID: 128

12:00 LUNCH/POSTERS/EXHIBITION - Red Pepper

SESSION: **SummitPlenaryWedAM**

Wed. 23 Oct. 2024

Room: **Marika A Ballroom**

Session Chair: Florian Kongoli

8:00: [SummitPlenaryWedAM01] OS

FLOGEN SUSTAINABILITY FRAMEWORK - PART 3

Florian Kongoli¹

¹FLOGEN Star OUTREACH, Montreal, Canada

Paper ID: 468

08:20: [SummitPlenaryWedAM02] OS

THEORY GUIDED BY EXPERIMENT AND BY CONNECTING THE DOTS

Rudy Marcus¹

¹California Institute of Technology, California, United States

Paper ID: 507

08:45: [SummitPlenaryWedAM03] OS

THE MOLECULAR LINKS BETWEEN AGEING AND NEURODEGENERATION

Nektarios Tavernarakis¹

¹Chair, EIT Governing Board (European Institute of Innovation & Technology), Heraklion, Greece

Paper ID: 454

09:10: [SummitPlenaryWedAM04] OS

MATHEMATICAL AND STATISTICAL ANALYSIS OF DATA FOR SOUND SCIENTIFIC DISCOVERIES

Samuel Berger¹

¹Data Scientist and Consultant, Costa Mesa, United States

Paper ID: 510

09:35: [SummitPlenaryWedAM05] OS

PARAGUAY AS AN EMERGING MINING JURISDICTION: URANIUM EXPLORATION & GEOPOLITICAL CONTEXT

Emily Hersh¹

¹Luna Energy Ltd., Nevada, United States

Paper ID: 505

10:00 COFFEE BREAK/POSTERS/EXHIBITION - Ballroom Foyer

10:20: [SummitPlenaryWedAM06] OS

MATERIALS FOR THE FUTURE

Konstantin Novoselov¹

¹National University, Singapore

Paper ID: 460

10:45: [SummitPlenaryWedAM07] OS

KEEPING A VEGETABLE GARDEN IN AN AREA SURROUNDED BY WILDLIFE – A PERSONAL PERSPECTIVE OF SUSTAINABILITY

Joachim Frank¹

¹Columbia University, New York, United States

Paper ID: 394

11:10: [SummitPlenaryWedAM08] OS

BIOETHICAL CHALLENGES IN MEDICINE

Aaron Ciechanover¹

¹Technion-Israel Institute of Technology, Haifa, Israel

Paper ID: 418

11:35: [SummitPlenaryWedAM09] OS

PUTTING LIFE MOLECULES IN PERSPECTIVE: THE HISTORY OF DNA, RNA, AND PROTEINS

Kurt Wuthrich¹

¹ETH Zurich Switzerland and Scripps Research, USA, Switzerland

Paper ID: 429

12:00 LUNCH/POSTERS/EXHIBITION - Red Pepper

Scientific Program

Oral Presentations

Monday

08:00 SUMMIT PLENARY - Marika A Ballroom

12:00 LUNCH/POSTERS/EXHIBITION - Red Pepper

SESSION: OxidativeMonPM1-R1	Abe International Symposium (4th Intl. Symp. on Oxidative Stress for Sustainable Development of Human Beings)
Mon. 21 Oct. 2024 / Room: Marika A	
Session Chairs: Shigeru Hirano; Yoshiaki Harakawa	

13:00: [OxidativeMonPM101] OL Plenary

NEUROPROTECTION AND STEM CELL THERAPY IN JAPAN

Koji Abe¹

¹Okayama University, Okayama, Japan

Paper ID: 453

13:20: [OxidativeMonPM102] OS Keynote

ANTIOXIDANT TREATMENT FOR ACNE VULGARIS

Yoshiaki Harakawa¹; Fuhua Yang¹; Haruhiko Inufusa¹

¹Gifu University, Gifu, Japan

Paper ID: 122

13:40: [OxidativeMonPM103] OS Plenary

ANTI-OXIDANT, TWENDEE X, IMPROVES WOUND HEALING OF THE VOCAL FOLD

Shigeru Hirano¹; Yoichiro Sugiyama²; Fuhua Yang³; Haruhiko Inufusa³; Toshikazu Yoshikawa⁴

¹Kyoto Prefectural U. of Medicine, Kyoto, Japan; ²Saga University, Saga, Japan; ³Gifu University, Gifu, Japan; ⁴Louis Pasteur Center, Kyoto, Japan

Paper ID: 124

14:00: [OxidativeMonPM104] OS Keynote

HARNESSING MITOCHONDRIAL SIGNALING FOR HEALTH AND LIFE EXTENSION

Andrea Stojakovic¹; Sergey Trushin¹; Thi Kim Oanh Nguyen¹; Huanyao Gao¹; **Eugenia Trushina**¹

¹Mayo Clinic, Rochester, United States

Paper ID: 67

14:20 POSTERS/EXHIBITION - Ballroom Foyer

SESSION: OxidativeMonPM2-R1	Abe International Symposium (4th Intl. Symp. on Oxidative Stress for Sustainable Development of Human Beings)
Mon. 21 Oct. 2024 / Room: Marika A	
<u>Session Chairs:</u> Haruhiko Inufusa; Kumiko Sugiyama	

14:25: [OxidativeMonPM205] OS Plenary

ROLE OF OXIDATIVE STRESS AND ANTIOXIDANTS IN LIVER STEATOSIS

Haruhiko Inufusa¹; Yoshiaki Harakawa¹; Fuhua Yang¹

¹Gifu University, Gifu, Japan

Paper ID: 120

14:45: [OxidativeMonPM206] OS Plenary

**THE IMPACT OF TWENDEE ON PEOPLE'S QUALITY OF LIFE AND ITS ROLE IN
MANAGING DIFFERENT DISEASES**

Florian Kongoli¹; Haruhiko Inufusa²

¹FLOGEN Technologies, Mont-Royal, Canada; ²Gifu University, Gifu, Japan

Paper ID: 367

15:05: [OxidativeMonPM207] OS Keynote

**FRAGRANCE POLLUTION INDUCES OXIDATIVE STRESS AND TRIGGERS
MULTIPLE CHEMICAL SENSITIVITY**

Kazuha Fujiwara¹; Hiroshi Satoh²; Kumiko Sugiyama²; Emi Ide²; Kanako Baba²; Scott Daniska³; David Dickerson⁴

¹Nara Women's University, Nara, Japan; ²Nagasaki International University, Sasebo, Japan; ³N/A, Bethel, United States; ⁴N/A, Rock Island, United States

Paper ID: 86

15:25: [OxidativeMonPM208] OS Keynote

**DYSPHAGIA ANIMAL MODEL WITH DENERVATION OF THE PHARYNGEAL
CONSTRICTOR MUSCLES: POSSIBLE CONTRIBUTION OF ANTI-OXIDANT
TWENDEE X ON THE MUSCLE ATROPHY**

Yoichiro Sugiyama¹; Keiko Hashimoto²; Yuki Sato¹; Shigeru Hirano³; Fuhua Yang⁴; Haruhiko Inufusa⁴; Toshikazu Yoshikawa⁵

¹Saga University, Saga, Japan; ²Department of Otolaryngology-Head and Neck Surgery, Kyoto Prefectural University of Medicine, Kyoto, Japan; ³Kyoto Prefectural U. of Medicine, Kyoto, Japan; ⁴Gifu University, Gifu, Japan; ⁵Louis Pasteur Center, Kyoto, Japan

Paper ID: 97

15:45 COFFEE BREAK/POSTERS/EXHIBITION - Ballroom Foyer

SESSION:
OxidativeMonPM3-R1

**Abe International Symposium (4th Intl.
Symp. on Oxidative Stress for
Sustainable Development of Human
Beings)**

Mon. 21 Oct. 2024 / Room: **Marika A**

Session Chairs: Fuhua Yang; Koji Fukui

16:05: [OxidativeMonPM309] OS Keynote

A BLENDED VITAMIN SUPPLEMENT IMPROVES COGNITIVE FUNCTION IN AGED MICE

Koji Fukui¹; Fuhua Yang²; Yugo Kato³; Ayuta Kishimoto¹; Yoshiaki Harakawa²; Toshikazu Yoshikawa⁴; Haruhiko Inufusa²

¹Shibaura Institute of Technology, Saitama, Japan; ²Gifu University, Gifu, Japan;

³Tottori University, Yonago, Japan; ⁴Louis Pasteur Center, Kyoto, Japan

Paper ID: 142

16:25: [OxidativeMonPM310] OS Keynote

OXIDATIVE STRESS AND ANTIOXIDANTS

Haruhiko Inufusa¹; Yoshiaki Harakawa¹; Fuhua Yang¹

¹Gifu University, Gifu, Japan

Paper ID: 118

16:45: [OxidativeMonPM311] OS Invited

ROLE OF OXIDATIVE STRESS IN SINUSITIS

Fuhua Yang¹; Yoshiaki Harakawa¹; Haruhiko Inufusa¹

¹Gifu University, Gifu, Japan

Paper ID: 119

17:05: [OxidativeMonPM312] OS Invited

FRAGRANCE POLLUTION INDUCES MULTIPLE CHEMICAL SENSITIVITY

Kazuha Fujiwara¹; Scott Daniska²; David Dickerson³

¹Nara Women's University, Nara, Japan; ²N/A, Bethel, United States; ³N/A, Rock Island, United States

Paper ID: 88

17:25 POSTERS/EXHIBITION - Ballroom Foyer

SESSION:
OxidativeMonPM4-R1

**Abe International Symposium (4th Intl.
Symp. on Oxidative Stress for
Sustainable Development of Human
Beings)**

Mon. 21 Oct. 2024 / Room: **Marika A**

Session Chairs: Haruhiko Inufusa

17:30: [OxidativeMonPM413] OS Invited

POTENTIAL OF AN ANTIOXIDANT SUPPLEMENT FOR AMYOTROPHIC LATERAL SCLEROSIS

Yoshiaki Harakawa¹; Fuhua Yang¹; Haruhiko Inufusa¹

¹Gifu University, Gifu, Japan

Paper ID: 121

17:50: [OxidativeMonPM414] OS Invited

OXIDATIVE STRESS ON HUMAN VOICE

Shigeru Hirano¹; Yoichiro Sugiyama²; Fuhua Yang³; Haruhiko Inufusa³; Toshikazu Yoshikawa⁴

¹Kyoto Prefectural U. of Medicine, Kyoto, Japan; ²Saga University, Saga, Japan; ³Gifu University, Gifu, Japan; ⁴Louis Pasteur Center, Kyoto, Japan

Paper ID: 125

19:30 THEME BUFFET DINNER & SHOW - Secret Garden (outdoor)

08:00 SUMMIT PLENARY - Marika A Ballroom

12:00 LUNCH/POSTERS/EXHIBITION - Red Pepper

SESSION: GeochemistryMonPM1-R2	Ross International Symposium (3rd Intl. Symp. on Geochemistry for Sustainable Development)
Mon. 21 Oct. 2024 / Room: Marika B1	
Session Chairs: Laura Bonatti; Alexandra Navrotsky	

13:00: [GeochemistryMonPM101] OS Plenary

THE FASCINATING WORLD OF FRAMEWORK MATERIALS

Nancy Ross¹

¹Virginia Tech, Blacksburg, United States

Paper ID: 264

13:20: [GeochemistryMonPM102] OS Plenary

HIGH PRESSURE HIGH PROFIT

Alexandra Navrotsky¹

¹Arizona State University, Phoenix, United States

Paper ID: 31

13:40: [GeochemistryMonPM103] OS

THERMOCHEMISTRY OF NANOSTRUCTURED TRANSITION METAL NITRIDES

Laura Bonatti¹; Tamilarasan Subramani¹; Kristina Lilova¹; Alexandra Navrotsky²

¹Arizona State University, Tempe, United States; ²Arizona State University, Phoenix, United States

Paper ID: 85

14:00: [GeochemistryMonPM104] OS

SELF-ORGANIZATION, PATTERN FORMATION, AND COMPLEXITY IN GEOSYSTEMS AND GEOMATERIALS

Sabine Dietrich¹

¹Berlin, Germany

Paper ID: 109

14:20 POSTERS/EXHIBITION - Ballroom Foyer

SESSION: GeochemistryMonPM2-R2	Ross International Symposium (3rd Intl. Symp. on Geochemistry for Sustainable Development)
Mon. 21 Oct. 2024 / Room: Marika B1	
Session Chairs: Megan Householder; Larissa Dobrzhinetskaya	

14:25: [GeochemistryMonPM205] OS

SURFACE ENERGY OF AMORPHOUS ENSTATITE AND ITS IMPLICATION FOR THE FORMATION OF SILICATE CLOUDS IN HOT JUPITER ATMOSPHERES

Megan Householder¹; James Lyons²; Tamilarasan Subramani¹; Kristina Lilova¹; Alexandra Navrotsky³

¹Arizona State University, Tempe, United States; ²Planetary Sciences Institute, Tucson, United States; ³Arizona State University, Phoenix, United States

Paper ID: 144

14:45: [GeochemistryMonPM206] OS

GEOPOLYMERS AND THEIR POTENTIAL APPLICATIONS

Waltraud M. Kriven¹

¹University of Illinois at Urbana-Champaign, Urbana, IL, United States

Paper ID: 383

15:05: [GeochemistryMonPM207] OS

GEOCHEMISTRY OF MICRODIAMONDS FROM SUBDUCTION ZONES: EVIDENCE OF CONTINENTAL CRUST – MANTLE INTERACTION

Larissa Dobrzhinetskaya¹; Earl O'Bannon²; Hiroshika Sumino³

¹U. of California, Riverside, Riverside, United States; ²Lawrence Livermore National Laboratory, Lawrence Livermore, United States; ³The University of Tokyo, Tokyo, Japan

Paper ID: 401

15:25: [GeochemistryMonPM208] OS

BRADYSEISM IN CAMPI FLEGREI, ITALY

Benedetto De Vivo¹

¹University Napoli Federico II, Napoli, Italy

Paper ID: 275

15:45 COFFEE BREAK/POSTERS/EXHIBITION - Ballroom Foyer

SESSION:
GeochemistryMonPM3-R2

**Ross International Symposium (3rd Intl.
Symp. on Geochemistry for Sustainable
Development)**

Mon. 21 Oct. 2024 / Room: **Marika B1**

Session Chairs: Megan Householder; Benedetto De Vivo

16:05: [GeochemistryMonPM309] OL Keynote
CAN UNKNOWNNS BE PREDICTED QUANTITATIVELY?
Zi-Kui Liu¹

¹Penn State Univ., University Park, United States
Paper ID: 503

16:25: [GeochemistryMonPM310] OS Plenary
**TOWARD SUPERCONDUCTIVITY AT AMBIENT TEMPERATURES AND
PRESSURES**

Russell Hemley¹

¹University of Illinois Chicago, Chicago, United States
Paper ID: 421

16:45: [GeochemistryMonPM311] OS Keynote
**THE FIRST GEOCHEMICAL CHARACTERISATION OF A PREHISTORIC ROCK
CRYSTAL MINE IN THE SWISS ALPS**

Thomas Hess¹

¹University of Basel, Basel, Switzerland
Paper ID: 232

17:05: [GeochemistryMonPM312] OS
**PB ISOTOPES HELP DEFINING THE FIRST USE OF ALPINE COPPER AND THE
FLOW OF METAL IN THE COPPER AGE (4TH-3RD MILLENNIA BC)**

Gilberto Artioli¹; Ivana Angelini¹

¹University of Padova, Padova, Italy
Paper ID: 410

17:25 POSTERS/EXHIBITION - Ballroom Foyer

SESSION:
GeochemistryMonPM4-R2

**Ross International Symposium (3rd Intl.
Symp. on Geochemistry for Sustainable
Development)**

Mon. 21 Oct. 2024 / Room: **Marika B1**

Session Chairs: Larissa Dobrzhinetskaya

17:30: [GeochemistryMonPM413] OL

MINERAL INCLUSIONS TO PROBE SOLID-STATE RHEOLOGY IN THE EARTH'S INTERIOR

Matteo Alvaro¹

¹University of Pavia, Pavia, Italy

Paper ID: 260

17:50: [GeochemistryMonPM414] OS

HOW PRESSURE CAN TRANSFORM THE OPEN-FRAMEWORK SILICATES: COMPRESSIONAL BEHAVIOUR AND CRYSTAL-FLUID INTERACTION

G. Diego Gatta¹

¹University of Milan, Milan, Italy

Paper ID: 161

18:10: [GeochemistryMonPM415] OS

RESEARCH STATEMENTS

Dawei Feng¹

¹University of Science and Technology Beijing, Beijing, China

Paper ID: 164

19:30 THEME BUFFET DINNER & SHOW - Secret Garden (outdoor)

08:00 SUMMIT PLENARY - Marika A Ballroom

12:00 LUNCH/POSTERS/EXHIBITION - Red Pepper

SESSION:

MathematicsMonPM1-R3

Mon. 21 Oct. 2024 / Room: **Marika B2**

Session Chairs: Mike Mikalajunas

**Rowlands International Symposium
(7th Intl. Symp. on Sustainable
Mathematics Applications)**

13:00: [MathematicsMonPM101] OS Plenary

CAN PHYSICS BE DERIVED FROM A SINGLE EQUATION?

Peter Rowlands¹

¹University of Liverpool, Liverpool, United Kingdom

Paper ID: 137

13:20: [MathematicsMonPM102] OS

KINEMATIC MASS AND WORLDLINES IN MINKOWSKI SPACE

Garnet Ord¹

¹Toronto Metropolitan University, Toronto, Canada

Paper ID: 160

13:40: [MathematicsMonPM103] OS

SOME OF THE MAIN HIGHLIGHTS RELATED TO MY SECOND WORKSHOP ON THE APPLICATION OF SDF INTO THE PHYSICAL AND BIOLOGICAL SCIENCES

Mike Mikalajunas¹

¹CIME, iLe Perrot, Canada

Paper ID: 426

14:00: [MathematicsMonPM104] OS

ROWLANDS' DUALITY PRINCIPLE DOES NOT UNIFY, BUT RATHER UNITES, QUANTUM MECHANICS & GENERAL RELATIVITY

Sabah Karam¹; **Mohamed Said Moulay**²

¹Duality Science Academy, Baltimore, United States; ²University of Sciences and Technology Houari Boumediene (USTHB), Bab Ezzouar, Algiers, Algeria

Paper ID: 262

14:20 POSTERS/EXHIBITION - Ballroom Foyer

SESSION: MathematicsMonPM2-R3	Rowlands International Symposium (7th Intl. Symp. on Sustainable Mathematics Applications)
Mon. 21 Oct. 2024 / Room: Marika B2	
Session Chairs: Louis Kauffman; Mohamed Said Moulay	

14:25: [MathematicsMonPM205] OS

TOPOLOGICAL MODELS FOR ELEMENTARY PARTICLES

Louis Kauffman¹

¹University of Illinois at Chicago, Chicago, United States

Paper ID: 310

14:45: [MathematicsMonPM206] OS

BEING POSITIVE ABOUT NEGATIVE SIGNED QUANTITIES: RESTRUCTURING THE SHAPE AND TOPOLOGICAL CONTENT OF SPACE WITH A CORBORDISM OF MANIFOLDS - PART 1

James Watson¹

¹Doughnut Economics Advocates New Zealand, Auckland, New Zealand

Paper ID: 111

15:05: [MathematicsMonPM207] OS

BEING POSITIVE ABOUT NEGATIVE SIGNED QUANTITIES: RESTRUCTURING THE SHAPE AND TOPOLOGICAL CONTENT OF SPACE WITH A CORBORDISM OF MANIFOLDS - PART 2

James Watson¹

¹Doughnut Economics Advocates New Zealand, Auckland, New Zealand

Paper ID: 441

15:25: [MathematicsMonPM208] OL

BASIC STRUCTURES OF MATTER – SUPERGRAVITATION UNIFIED THEORY

Stoyan Sarg Sargoytchev¹

¹Earth Civilization and Universe Society, Plovdiv, Bulgaria

Paper ID: 80

15:45 COFFEE BREAK/POSTERS/EXHIBITION - Ballroom Foyer

SESSION: GlassMonPM3-R3	Oktik International Symposium (2nd Intl. Symp. on Sustainable Glass and Polymers Processing and Applications)
Mon. 21 Oct. 2024 / Room: Marika B2	
Session Chairs: Sener Oktik; Peter Simurka	

16:05: [GlassMonPM309] OS Plenary

ADVANCING INNOVATION AND SUSTAINABILITY: THE LEGACY OF PROF. DR. ŞENER OKTIK AND ŞİŞECAM'S INTEGRATED R&TD APPROACH

Burak Büyükfirat¹

¹Şişecam, Istanbul, Turkey

Paper ID: 437

16:25: [GlassMonPM310] OS Plenary

NET ZERO: FLAT GLASS SECTOR AND VALUE-ADDED COATINGS

Sener Oktik¹

¹Sisecam, Istanbul, Turkey

Paper ID: 449

16:45: [GlassMonPM311] OS

GLASS SECTOR AND VALUE-ADDED COATINGS UPDATE - PART 1

Sener Oktik¹

¹Sisecam, Istanbul, Turkey

Paper ID: 525

17:05: [GlassMonPM312] OS

GLASS SECTOR AND VALUE-ADDED COATINGS UPDATE - PART 2

Sener Oktik¹

¹Sisecam, Istanbul, Turkey

Paper ID: 526

17:25 POSTERS/EXHIBITION - Ballroom Foyer

SESSION:
GlassMonPM4-R3

**Oktik International Symposium (2nd
Intl. Symp. on Sustainable Glass and
Polymers Processing and Applications)**

Mon. 21 Oct. 2024 / Room: **Marika B2**

Session Chairs: Sener Oktik; Zhuoer Jiang

17:30: [GlassMonPM413] OS

TABLEWARE GLASS WEATHERING

Peter Simurka¹; Peter Vrabel²; Veronika Vargova²; Jozef Kraxner³

¹Jasispo s.r.o, Trenčín, Slovakia; ²Rona a.s., Lednicke Rovne, Slovakia; ³Alexander
Dubček University of Trenčín, Trenčín, Slovakia

Paper ID: 25

17:50: [GlassMonPM414] OL Keynote

**FUNDAMENTAL APPROACH TO A SUSTAINABLE AND CO2-free GLASS
INDUSTRY**

Christian Roos¹

¹RWTH Aachen University, International Partners in Glass Research, 52074 Aachen,
Germany

Paper ID: 39

18:10: [GlassMonPM415] OS

**THE EFFECT OF DIFFERENT PROCESSING METHODS ON THE PERFORMANCE
OF UNTANNED HIDE**

Zhuoer Jiang¹; Keyong Tang¹

¹Zhengzhou University, Zhengzhou, China

Paper ID: 181

18:30: [GlassMonPM416] OS

**PREPARATION OF HIGH-QUALITY VN VIA CORE-SHELL PRECURSOR METHOD
UNDER THE INTERVENTION OF DISPERSANTS**

Wenbin Bo¹; Yimin Zhang¹; **Nannan Xue**¹; Hong Liu¹

¹Wuhan University of Science and Technology, Wuhan, China

Paper ID: 94

19:30 THEME BUFFET DINNER & SHOW - Secret Garden (outdoor)

08:00 SUMMIT PLENARY - Marika A Ballroom

12:00 LUNCH/POSTERS/EXHIBITION - Red Pepper

SESSION:
LawsMonPM1-R4

**Dibra International Symposium (4th Intl
Symp on Laws & their Applications for
Sustainable Development)**

Mon. 21 Oct. 2024 / Room: **Minos**

Session Chairs: Haruhiko Inufusa; Samuel Berger

13:00: [LawsMonPM101] OS

COMMON VERSUS CIVIL LAW SYSTEMS AND APPOINTED VERSUS ELECTED JUDICIAL SYSTEMS: ADVANTAGES AND DISADVANTAGES

Florian Kongoli¹

¹FLOGEN Star OUTREACH, Montreal, Canada

Paper ID: 153

13:20: [LawsMonPM102] OS

EXPOSING MEDICAL MALPRACTICE BY UTILIZING DATA SCIENCE METHODOLOGY

Samuel Berger¹; Florian Kongoli²

¹Data Scientist and Consultant, Costa Mesa, United States; ²FLOGEN Technologies, Mont-Royal, Canada

Paper ID: 381

13:40: [LawsMonPM103] OS Plenary

LEGAL RIGHT OF PATIENTS TO RECEIVE APPROPRIATE TREATMENT IN HOSPITAL — WITNESS OF MS. DIBRA

Haruhiko Inufusa¹

¹Gifu University, Gifu, Japan

Paper ID: 152

14:00: [LawsMonPM104] OS

RECOMMENDED REFORMS IN THE PRACTICE OF OBTAINING INFORMED CONSENT FOR SHARING MEDICAL AND HEALTH DATA

Shinto Teramoto¹

¹Kyushu University, Fukuoka, Japan

Paper ID: 87

14:20 POSTERS/EXHIBITION - Ballroom Foyer

SESSION: PharmaceuticalMonPM2-R4	Leuenberger International Symposium on Pharmaceutical Sciences and Industrial Applications for Sustainable Development
Mon. 21 Oct. 2024 / Room: Minos	
<u>Session Chairs:</u> Hans Leuenberger; Norbert Schwarzer	

14:25: [PharmaceuticalMonPM205] OS Plenary

OPEN MINDEDNESS & UNRESOLVED MYSTERIES

Hans Leuenberger¹

¹University of Florida, Orlando, United States

Paper ID: 324

14:45: [PharmaceuticalMonPM206] OS

THE LEGACY OF THE SWISS HERMIT NICOLAS OF FLUE (1417-1487): LEADING TO THE WORLD HEALTH ORGANIZATION (WHO) PEACE INITIATIVE

Hans Leuenberger¹

¹University of Florida, Orlando, United States

Paper ID: 506

15:05: [PharmaceuticalMonPM207] OS Plenary

LOVE, THE BLACK HOLE IN THE UNIVERSE OF FEELINGS – WHY PSYCHOLOGY MIGHT NEED QUANTUM GRAVITY CONCEPTS - PART 1

Norbert Schwarzer¹; Julius Schwarzer¹

¹Saxonian Institute of Surface Mechanics and RASA Energy Inc., Ummanz, Germany

Paper ID: 327

15:25: [PharmaceuticalMonPM208] OS Plenary

LOVE, THE BLACK HOLE IN THE UNIVERSE OF FEELINGS – WHY PSYCHOLOGY MIGHT NEED QUANTUM GRAVITY CONCEPTS - PART 2

Norbert Schwarzer¹

¹Saxonian Institute of Surface Mechanics and RASA Energy Inc., Ummanz, Germany

Paper ID: 462

15:45 COFFEE BREAK/POSTERS/EXHIBITION - Ballroom Foyer

SESSION: LawsMonPM3-R4	Dibra International Symposium (4th Intl Symp on Laws & their Applications for Sustainable Development)
Mon. 21 Oct. 2024 / Room: Minos	
Session Chairs: Berin Romagnolo; Shinto Teramoto	

16:05: [LawsMonPM309] OS

THE CHALLENGE TO ACHIEVE JUSTICE FOR ALL IN GLOBAL IMMIGRATION

Berin Romagnolo¹

¹ArentFox Schiff, Boston, United States

Paper ID: 366

16:25: [LawsMonPM310] OL

PROFESSIONAL IDENTITY FORMATION THROUGH THERAPEUTIC JURISPRUDENCE (TJ)

Sofia Lizzio¹

¹Foutsis Law Firm , Athens, Greece

Paper ID: 298

16:45: [LawsMonPM311] OL

DEPOLITICIZING SUSTAINABILITY: A SENSIBLE APPROACH TO A BALANCE IN ENVIRONMENTAL ENERGY CONSIDERATIONS

Malcolm McNeil¹

¹ArentFox Schiff LLP, Los Angeles, United States

Paper ID: 148

17:05: [LawsMonPM312] OS

HARNESSING CARBON CAPTURE AND STORAGE (CCS) TECHNOLOGY FOR A SUSTAINABLE FUTURE: GREECE'S ROLE IN ADVANCING CLEAN ENERGY TRANSITIONS

Mariadina Lili-Kokkori¹

¹Koutalidis Law Firm, Athens, Greece

Paper ID: 362

17:25 POSTERS/EXHIBITION - Ballroom Foyer

SESSION: LawsMonPM4-R4	Dibra International Symposium (4th Intl Symp on Laws & their Applications for Sustainable Development)
Mon. 21 Oct. 2024 / Room: Minos	
Session Chairs: <u>Mariadina Lili-Kokkori</u>	

17:30: [LawsMonPM413] OL Keynote

ADVANCING PROCEDURAL PLURALISM IN ENGLISH COURTS

Pablo Cortes¹

¹Leicester Law School, Leicester, United Kingdom

Paper ID: 358

17:50: [LawsMonPM414] OL Invited

DISPUTE RESOLUTION IN THE DARK WEB

Pablo Cortes¹

¹Leicester Law School, Leicester, United Kingdom

Paper ID: 359

18:10: [LawsMonPM415] OS

THE LACKING ETHICS IN THE ACADEMIC WORLD

Marcos De Campos¹

¹Federal Fluminense University, Volta Redonda, Brazil

Paper ID: 519

18:30: [LawsMonPM416] OS

HUMAN RIGHTS AND CLIMATE CHANGE: CONNECTING THE DOTS

Miriam Cohen¹

¹Université de Montréal, Montréal, Canada

Paper ID: 431

19:30 THEME BUFFET DINNER & SHOW - Secret Garden (outdoor)

08:00 SUMMIT PLENARY - Marika A Ballroom

12:00 LUNCH/POSTERS/EXHIBITION - Red Pepper

SESSION: MineralMonPM1-R5	Anastassakis International Symposium (10th Intl. Symp. on Sustainable Mineral Processing)
Mon. 21 Oct. 2024 / Room: Lida	
Session Chairs: Georgios N. Anastassakis; Vladimir Andric	

13:00: [MineralMonPM101] OS

WELCOME SPEECHES FROM DISTINGUISHED PERSONALITIES

Georgios N. Anastassakis¹

¹National Technical University of Athens, Athens, Greece

Paper ID: 501

13:20: [MineralMonPM102] OS Plenary

**AN INDUSTRIAL AND ACADEMIC LIFE DEDICATED TO MINERAL PROCESSING
AND SUSTAINABILITY**

Georgios N. Anastassakis¹

¹National Technical University of Athens, Athens, Greece

Paper ID: 497

13:40: [MineralMonPM103] OL Plenary

MINERAL RAW MATERIALS: THE EUROPEAN AND THE GREEK DIMENSION

Peter Tzeferis¹

¹Ministry of Environment and Energy, Athens, Greece

Paper ID: 502

14:00: [MineralMonPM104] OS Plenary

**GREEK EXTRACTIVE INDUSTRY THE PRESENCES AND THE FUTURE. CRMA
AND THE PARTICIPATION OF GREECE**

Christos Kavalopoulos¹

¹Greek Mining Enterprises Association, Athens, Greece

Paper ID: 476

14:20 POSTERS/EXHIBITION - Ballroom Foyer

SESSION: MineralMonPM2-R5	Anastassakis International Symposium (10th Intl. Symp. on Sustainable Mineral Processing)
Mon. 21 Oct. 2024 / Room: Lida	
Session Chairs: Georgios N. Anastassakis; Eirini Evangelou	

14:25: [MineralMonPM205] OS Plenary

HYDROGEOLOGICAL CONDITIONS AND SUSTAINABILITY CHALLENGES IN THE MESSARA BASIN, CRETE

Ioannis Michalakis¹

¹Hellenic Survey of Geology and Mineral Exploration, Acharnes, Greece
Paper ID: 493

14:45: [MineralMonPM206] OS

THE SMME AT THE EPICENTER OF ACADEMIA AND INDUSTRY ON THE FOREFRONT OF THE TWIN DIGITAL AND GREEN TRANSITION

Spyros Papaefthymiou¹

¹National Technical University of Athens, Athens, Greece
Paper ID: 499

15:05: [MineralMonPM207] OS

PLANT-BASED COLLECTOR AS SUBSTITUTE TO XANTHATE IN THE FLOTATION OF METALIC SULPHIDES

Panaqiotis Angelopoulos¹; Georgios N. Anastassakis²; Maria Taxiarchou²

¹National Technical University of Athens, Athens, Greece; ²National Technical University of Athens, Athens, Greece
Paper ID: 187

15:25: [MineralMonPM208] OS

THE ROUGHING PROCESS FOR IMPROVING METAL RECOVERY FROM PLASTIC WEEE WASTE

Héctor Muñiz Sierra¹; Pierre-Louis Giraud²; Michal Šyc¹

¹Institute of Chemical Process Fundamentals of the Czech Academy of Sciences, Prague, Czech Republic; ²École Nationale Supérieure des Ingénieurs en Arts Chimiques et Technologiques (ENSIACET), Toulouse, France
Paper ID: 417

15:45 COFFEE BREAK/POSTERS/EXHIBITION - Ballroom Foyer

SESSION: MineralMonPM3-R5	Anastassakis International Symposium (10th Intl. Symp. on Sustainable Mineral Processing)
Mon. 21 Oct. 2024 / Room: Lida	
Session Chairs: Vladimir Andric; Vasiliki Dova	

16:05: [MineralMonPM309] OS

DEVELOPMENT OF PHYSICO-CHEMICAL METHODS APPLICABLE IN SEPARATION AND RECOVERY OF FINE IRON PARTICLES

Eirini Evangelou¹; Georgios N. Anastassakis¹

¹National Technical University of Athens, Athens, Greece
Paper ID: 337

16:25: [MineralMonPM310] OS

PERLITE AS A MICROBIAL CARRIER: A BIOREMEDIATION SOLUTION FOR MARINE OIL-SPILLS

Maria-Sotiria Frousiou¹; Ioanna Petropoulou¹; Dimitrios Papadomarkakis¹; Antonis Peppas²

¹National Technical University of Athens, Athens, Greece; ²Laboratory of Metallurgy, National Technical University of Athens, Athens, Greece

Paper ID: 332

16:45: [MineralMonPM311] OS Keynote

DIFFERENCE OF FLOTATION BEHAVIOR AND KINETICS BETWEEN WOLFRAMITE AND SCHEELITE IN Pb-BHA SYSTEM: EXPERIMENTAL AND SIMULATION STUDIES

Zhifeng Zhang¹; Junhao Fu¹; Haisheng Han¹; Wei Sun¹; Yuehua Hu¹

¹Central South University, Changsha, China

Paper ID: 28

17:05: [MineralMonPM312] OS Invited

LONG CYCLES IN GLOBAL ENERGY BEHAVIOUR

Vladimir Andric¹

¹Institute of Economic Sciences, Belgrade, Serbia

Paper ID: 103

17:25 POSTERS/EXHIBITION - Ballroom Foyer

SESSION: MineralMonPM4-R5	Anastassakis International Symposium (10th Intl. Symp. on Sustainable Mineral Processing)
Mon. 21 Oct. 2024 / Room: Lida	
Session Chairs: <u>Irineu A.S. de Brum</u> ; Georgios N. Anastassakis	

17:30: [MineralMonPM413] OS

RECYCLING LITHIUM-ION BATTERIES (LiBs): PROCESSES, ENVIRONMENTAL IMPACT AND ECONOMIC FEASIBILITY

Vasiliki Dova¹; Georgios N. Anastassakis¹

¹National Technical University of Athens, Athens, Greece

Paper ID: 300

17:50: [MineralMonPM414] OS

PRE-CONCENTRATION BY SENSOR-BASED SORTING APPLIED TO A GREENFIELD COPPER ORE PROJECT IN SOUTHERN BRAZIL: PRELIMINARY RESULTS

Evandro Gomes Dos Santos¹; Irineu A.S. de Brum²; Wesley Ambros²

¹Federal University of Rio Grande do Sul, Caçapava do Sul, Brazil; ²Federal University of Rio Grande do Sul, Porto Alegre, Brazil

Paper ID: 239

18:10: [MineralMonPM415] OS

A NOVEL APPROACH FOR THE TREATMENT OF EAF SLAG FROM LARCO FERRONICKEL PLANT IN GREECE FOR THE RECOVERY OF NICKEL AND COBALT

Stylianios Tampouris¹; Martin Bertau²; Michael Kraft²; Clemens Rogoll²

¹GMMSA LARCO, Marousi, Greece; ²Freiberg University of Mining and Technology, Freiberg, Germany

Paper ID: 364

18:30: [MineralMonPM416] OS Plenary

COMPLEX APPROACH TO ASSESSMENT OF INTENSIFYING IMPACTS INFLUENCE ON THE EFFICIENCY OF FLOTATION BENEFICIATION OF STRATEGIC RAW MINERALS

Tatyana Aleksandrova¹; Valentin Kuznetsov¹

¹Empress Catherine II Saint Petersburg Mining University, St. Petersburg, Russian Federation

Paper ID: 255

19:30 THEME BUFFET DINNER & SHOW - Secret Garden (outdoor)

08:00 SUMMIT PLENARY - Marika A Ballroom

12:00 LUNCH/POSTERS/EXHIBITION - Red Pepper

SESSION: SISAMMonPM1-R6	Schultz International Symposium (8th Intl. Symp. on Science of Intelligent & Sustainable Advanced Ferromagnetic and Superconducting Magnets (SISAM))
Mon. 21 Oct. 2024 / Room: Knossos	
Session Chairs: <u>Michael Coey</u>	

13:00: [SISAMMonPM101] OS Plenary

PASSIVELY STABLE QUANTUM LEVITATION BY THE INTERACTION OF SUPERCONDUCTING AND FERROMAGNETIC PERMANENT MAGNETS - PART 1

Ludwig Schultz¹

¹TU Dresden, Dresden, Germany

Paper ID: 107

13:20: [SISAMMonPM102] OS Plenary

PASSIVELY STABLE QUANTUM LEVITATION BY THE INTERACTION OF SUPERCONDUCTING AND FERROMAGNETIC PERMANENT MAGNETS - PART 2

Ludwig Schultz¹

¹TU Dresden, Dresden, Germany

Paper ID: 477

13:40: [SISAMMonPM103] OS Keynote
MAGNETO-OPTICS, REVISITED -PART1
Rudolf Schaefer¹

¹IFW Dresden, Dresden, Germany
Paper ID: 165

14:00: [SISAMMonPM104] OS Keynote
MAGNETO-OPTICS, REVISITED - PART 2
Rudolf Schaefer¹

¹IFW Dresden, Dresden, Germany
Paper ID: 478

14:20 POSTERS/EXHIBITION - Ballroom Foyer

SESSION: SISAMMonPM2-R6	Schultz International Symposium (8th Intl. Symp. on Science of Intelligent & Sustainable Advanced Ferromagnetic and Superconducting Magnets (SISAM))
Mon. 21 Oct. 2024 / Room: Knossos	
<u>Session Chairs:</u> Christian Teichert	

14:25: [SISAMMonPM205] OS Invited
DEVELOPMENT OF MAGNETICALLY SOFT CO-RICH AMORPHOUS MICROWIRES WITH HIGH GIANT MAGNETOIMPEDANCE EFFECT

Arcady Zhukov¹; Valentina Zhukova²; Paula Corte-Leon²; Alvaro Gonzalez³

¹Basque Foundation for Science, Bilbao, Spain; ²University of the Basque Country, San Sebastian, Spain; ³Dept. Polym. Adv. Mater, Univ. Basque Country, San Sebastian, Spain
Paper ID: 56

14:45: [SISAMMonPM206] OS Invited
PRESSURE-LESS SPARK PLASMA SINTERING OF FERRITE-BASED PERMANENT MAGNETS: PHASE EVOLUTION, MICROSTRUCTURE AND MAGNETIC PROPERTIES

Petra Jenus¹; Aleksander Učakar¹; Blaž Belec²; Andraž Kocjan¹

¹Jožef Stefan Institute, Ljubljana, Slovenia; ²University of Nova Gorica, Nova Gorica, Slovenia
Paper ID: 328

15:05: [SISAMMonPM207] OS Invited
UNRAVELING THE ATOMIC-SCALE PROPERTIES OF METALLIC GLASSES
Udo Schwarz¹

¹Yale University, New Haven, United States
Paper ID: 134

15:25: [SISAMonPM208] OS Invited

SCIENTIFIC AND TECHNOLOGICAL CHALLENGES AND OPPORTUNITIES WITH 3-DIM NANOMAGNETISM

Peter Fischer¹

¹Lawrence Berkeley National Laboratory, Berkeley, United States

Paper ID: 198

15:45 COFFEE BREAK/POSTERS/EXHIBITION - Ballroom Foyer

SESSION: SISAMonPM3-R6	Schultz International Symposium (8th Intl. Symp. on Science of Intelligent & Sustainable Advanced Ferromagnetic and Superconducting Magnets (SISAM))
Mon. 21 Oct. 2024 / Room: Knossos	
Session Chairs: Ludwig Schultz	

16:05: [SISAMonPM309] OS Keynote

AMORPHOUS RARE-EARTH TRANSITION-METAL ALLOYS REVISITED - PART 1

Michael Coey¹

¹Trinity College Dublin, Dublin, Ireland

Paper ID: 186

16:25: [SISAMonPM310] OS Keynote

AMORPHOUS RARE-EARTH TRANSITION-METAL ALLOYS REVISITED - PART 2

Michael Coey¹

¹Trinity College Dublin, Dublin, Ireland

Paper ID: 479

16:45: [SISAMonPM311] OS Keynote

HYDROGEN ASSISTED (DIRECT) RECYCLING OF ND-FE-B PERMANENT MAGNETS – A CRITICAL REVIEW - PART 1

Carlo Burkhardt¹

¹Pforzheim University, Pforzheim, Germany

Paper ID: 95

17:05: [SISAMonPM312] OS Keynote

HYDROGEN ASSISTED (DIRECT) RECYCLING OF ND-FE-B PERMANENT MAGNETS – A CRITICAL REVIEW - PART 2

Carlo Burkhardt¹

¹Pforzheim University, Pforzheim, Germany

Paper ID: 480

17:25 POSTERS/EXHIBITION - Ballroom Foyer

SESSION:
SISAMMonPM4-R6

**Schultz International Symposium (8th
Intl. Symp. on Science of Intelligent &
Sustainable Advanced Ferromagnetic
and Superconducting Magnets
(SISAM))**

Mon. 21 Oct. 2024 / Room: **Knossos**

Session Chairs: Jean-Marie Dubois; Ludwig Schultz

17:30: [SISAMMonPM413] OL Keynote

BMG TYPE THIN FILM NANOGLASSES - PART 1

Hans Fecht¹

¹Ulm University, Ulm, Germany

Paper ID: 37

17:50: [SISAMMonPM414] OL Keynote

BMG TYPE THIN FILM NANOGLASSES - PART 2

Hans Fecht¹

¹Ulm University, Ulm, Germany

Paper ID: 481

19:30 THEME BUFFET DINNER & SHOW - Secret Garden (outdoor)

08:00 SUMMIT PLENARY - Marika A Ballroom

12:00 LUNCH/POSTERS/EXHIBITION - Red Pepper

SESSION:
SolidStateChemistryMonPM1-R7

**Kanatzidis International Symposium
(4th Intl. Symp. on Materials/Solid State
Chemistry and Nanoscience for
Sustainable Development)**

Mon. 21 Oct. 2024 / Room: **Ariadni A**

Session Chairs: Takao Mori; Kyoung-Shin Choi

13:00: [SolidStateChemistryMonPM101] OS Plenary

**TRAILBLAZING INNOVATIONS IN MATERIALS CHEMISTRY: THE LEGACY OF
MERCOURI KANATZIDIS**

Mercouri G. Kanatzidis¹

¹Northwestern University, Illinois, United States

Paper ID: 473

13:20: [SolidStateChemistryMonPM102] OS Keynote
REVEALING THE IMPACT OF SURFACE AND INTERFACIAL ATOMIC AND ELECTRONIC STRUCTURES OF PHOTOELECTRODES ON SOLAR WATER SPLITTING

Kyoung-Shin Choi¹

¹University of Wisconsin-Madison, Madison, United States

Paper ID: 155

13:40: [SolidStateChemistryMonPM103] OS Keynote
2D MULTILAYERED PEROVSKITES FOR OPTOELECTRONICS

Jacky Even¹; **Claudine Katan**²

¹INSA Rennes UMR FOTON CNRS, Rennes, France; ²CNRS - ISCR, RENNES, France

Paper ID: 283

14:00: [SolidStateChemistryMonPM104] OS Keynote
DEVELOPMENT OF VIABLE THERMOELECTRIC DEVICES OF NOVEL MATERIALS

Takao Mori¹

¹National Institute for Materials Science (NIMS), Tsukuba, Japan

Paper ID: 284

14:20 POSTERS/EXHIBITION - Ballroom Foyer

SESSION:

SolidStateChemistryMonPM2-R7

**Kanatzidis International Symposium
(4th Intl. Symp. on Materials/Solid State
Chemistry and Nanoscience for
Sustainable Development)**

Mon. 21 Oct. 2024 / Room: **Ariadni A**

Session Chairs: Alain Tressaud; Vinayak Dravid

14:25: [SolidStateChemistryMonPM205] OS Invited
SEEING THE INVISIBLE: ELECTRON MICROSCOPY OF ENERGY MATERIALS

Vinayak Dravid¹

¹Northwestern University, Evanston, United States

Paper ID: 241

14:45: [SolidStateChemistryMonPM206] OS
SYNTHESIS OF THERMOELECTRIC SILICIDE MATERIALS USING COMMERCIAL AND RECYCLABLE SILICON

Panagiotis Mangelis¹; Panagiotis Ioannou¹; Anne-Karin Søiland²; **Theodora Kyratsi**¹

¹University of Cyprus, NICOSIA, Cyprus; ²ReSiTeC, Kristiansand, Norway

Paper ID: 325

15:05: [SolidStateChemistryMonPM207] OS Invited
RAMAN SCATTERING FROM DISORDERED CRYSTALS
Omer Yaffe¹

¹Weizmann Institute of Science, Rehovot, Israel
Paper ID: 195

15:25: [SolidStateChemistryMonPM208] OS Plenary
**NANOFLUORIDES IN MATERIAL SCIENCES, ENERGY SYSTEMS, PHOTONICS,
AND MEDICINAL CHEMISTRY**
Alain Tressaud¹

¹ICMCB-CNRS, University Bordeaux, Pessac, France
Paper ID: 189

15:45 COFFEE BREAK/POSTERS/EXHIBITION - Ballroom Foyer

SESSION: SolidStateChemistryMonPM3-R7 Mon. 21 Oct. 2024 / Room: Ariadni A <u>Session Chairs:</u> Jiaqing He; Kanishka Biswas	Kanatzidis International Symposium (4th Intl. Symp. on Materials/Solid State Chemistry and Nanoscience for Sustainable Development)
--	--

16:05: [SolidStateChemistryMonPM309] OS Invited
**SUBSTITUTIONAL EFFECTS IN MATERIALS TO DESIGN EFFICIENT CATALYSTS
FOR CO₂ REDUCTION, HYDROGEN PRODUCTION AND FUEL CELL OPERATION**
Sebastian Chirambatte Peter¹

¹Jawaharlal Nehru Centre for Advanced Scientific Research, Bengaluru, India
Paper ID: 277

16:25: [SolidStateChemistryMonPM310] OS Invited
ANTIBONDING ELECTRONIC STATES: NOT ALWAYS A DEVIL
Kanishka Biswas¹

¹Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR), Bangalore,
India
Paper ID: 309

16:45: [SolidStateChemistryMonPM311] OS
**STRUCTURE AND PROPERTY RELATIONSHIP IN GeTe BASED
THERMOELECTRIC MATERIALS**
Jiaging He¹

¹SUSTech, Shenzhen, China
Paper ID: 299

17:05: [SolidStateChemistryMonPM312] OS Invited

GIANT BIREFRINGENCE ACHIEVED VIA HYDROGEN BOND-CLICK REACTION FOR ENHANCED COPLANARITY

Ling Chen¹

¹Beijing Normal University, Beijing, China

Paper ID: 446

17:25 POSTERS/EXHIBITION - Ballroom Foyer

SESSION:

SolidStateChemistryMonPM4-R7

**Kanatzidis International Symposium
(4th Intl. Symp. on Materials/Solid State
Chemistry and Nanoscience for
Sustainable Development)**

Mon. 21 Oct. 2024 / Room: **Ariadni A**

Session Chairs: Elisabeth Djurado; Manjunatha Reddy G N

17:30: [SolidStateChemistryMonPM413] OS Invited

PROBING CHEMICAL BEHAVIOUR OF MOLECULAR SEMICONDUCTORS AT DIFFERENT LENGTH SCALES

Manjunatha Reddy G N¹

¹University of Lille, CNRS, Lille, France

Paper ID: 349

17:50: [SolidStateChemistryMonPM414] OS Invited

ELECTRON PARAMAGNETIC RESONANCE (EPR) FOR ELUCIDATION OF THE MECHANISM OF WATER OXIDATION CATALYSTS

Bryan Hunter¹

¹Northwestern University, Wilmette, United States

Paper ID: 312

18:10: [SolidStateChemistryMonPM415] OS Keynote

INNOVATIVE NANOSTRUCTURED OXYGEN ELECTRODES FOR SUSTAINABLE SOLID OXIDE CELLS USING ELECTROSTATIC SPRAY DEPOSITION

Elisabeth Djurado¹

¹Grenoble INP - LEPMI, St. Martin d'Herès, France

Paper ID: 35

18:30: [SolidStateChemistryMonPM416] OS

MONITORING EXPOSURE TO SUNLIGHT USING A NEW LAYERED METAL SELENIDE VISIBLE-LIGHT PHOTOCATALYST INCORPORATED IN BUBBLE WRAP PACKAGING MATERIAL

Vasiliki Karagianni¹

¹Department of Chemistry, University of Ioannina, Ioannina, Greece

Paper ID: 496

19:30 THEME BUFFET DINNER & SHOW - Secret Garden (outdoor)

08:00 SUMMIT PLENARY - Marika A Ballroom

12:00 LUNCH/POSTERS/EXHIBITION - Red Pepper

SESSION: CompositeMonPM1-R8	Monteiro International Symposium on Composite, Ceramic & Nano Materials Processing, Characterization & Applications (10th Intl. Symp.)
Mon. 21 Oct. 2024 / Room: Ariadni B	
Session Chairs: Sergio Monteiro; Henry Alonso Colorado Lopera	

13:00: [CompositeMonPM101] OS Plenary

A LIFE DEDICATED TO COMPOSITE, CERAMIC AND NANO MATERIALS PROCESSING

Sergio Monteiro¹

¹Military Institute of Engineering, Rio de Janeiro, Brazil

Paper ID: 509

13:20: [CompositeMonPM102] OS Keynote

NATURAL FIBERS FROM SOUTH AMERICA: AN INEXHAUSTIBLE SOURCE OF SUSTAINABLE MATERIALS

Henry Alonso Colorado Lopera¹; Sergio Monteiro²; Marc Meyers³

¹Universidad de Antioquia, Medellín, Colombia; ²Military Institute of Engineering, Rio de Janeiro, Brazil; ³University of California San Diego, Del Mar, United States

Paper ID: 475

13:40: [CompositeMonPM103] OS

DEVELOPMENT OF SUSTAINABLE NATURAL FIBRE GREEN COMPOSITES FOR INDUSTRIAL APPLICATIONS IN SOUTH AFRICA

Mandla Vincent Khumalo¹

¹Nelson Mandela University, Gqeberha (Port Elizabeth), South Africa

Paper ID: 15

14:00: [CompositeMonPM104] OS

EVALUATION OF THE VIABILITY OF PRODUCING PARTICLEBOARDS MANUFACTURED WITH INTEGRAL SHAVINGS FROM THE MIXTURE OF PINE WOODS

André Luis Christoforo¹; Francisco Antonio Rocco Lahr²; Sergio Monteiro³; Afonso Rangel Garcez De Azevedo⁴

¹Federal University of São Carlos, São Carlos, Brazil; ²University of São Paulo, São Carlos, Brazil; ³Military Institute of Engineering, Rio de Janeiro, Brazil; ⁴North

Fluminense State University Darcy Ribeiro (UENF), Campos dos Goytacazes, Brazil

Paper ID: 166

14:20 POSTERS/EXHIBITION - Ballroom Foyer

SESSION:
CompositeMonPM2-R8

**Monteiro International Symposium on
Composite, Ceramic & Nano Materials
Processing, Characterization &
Applications (10th Intl. Symp.)**

Mon. 21 Oct. 2024 / Room: **Ariadni B**

Session Chairs: Sergio Monteiro; Thomaz Jacintho Lopes

14:25: [CompositeMonPM205] OS Invited

FIQUE: A NATURAL FIBER FROM ANDES MOUNTAIN RANGE FROM COLOMBIA
Henry Alonso Colorado Lopera¹; Sergio Monteiro²; Marc Meyers³

¹Universidad de Antioquia, Medellín, Colombia; ²Military Institute of Engineering, Rio de Janeiro, Brazil; ³University of California San Diego, Del Mar, United States
Paper ID: 388

14:45: [CompositeMonPM206] OS

**MICROCOMPOSITE DEVELOPED FROM METHYL POLYMETHACRYLATE
REINFORCED WITH REDUCED GRAPHENE OXIDE (rGO).**

Clarissa De Paula Dias¹; Sergio Monteiro¹; Ricardo Pondé Weber¹

¹Military Institute of Engineering, Rio de Janeiro, Brazil
Paper ID: 191

15:05: [CompositeMonPM207] OS

**TENSILE STRENGTH OF POLYESTER MATRIX COMPOSITES REINFORCED
WITH SPOROBOLUS INDICUS FIBERS**

Douglas Silva¹; Sergio Monteiro²

¹Rio de Janeiro, Brazil; ²Military Institute of Engineering, Rio de Janeiro, Brazil
Paper ID: 192

15:25: [CompositeMonPM208] OS

**ENHANCING COMPOSITE WITH AÇAÍ PALM STEM FIBERS: MECHANICAL,
THERMAL, AND MORPHOLOGICAL CHARACTERIZATION**

Leonardo Martins Nazário Silva¹; Marcela Coelho Da Silva¹; Roseméri Barbosa Dos Santos Da Silva¹; Sergio Monteiro²; **Michel Picanço Oliveira**¹

¹Federal University of Espirito Santo, Jerônimo Monteiro, Brazil; ²Military Institute of Engineering, Rio de Janeiro, Brazil
Paper ID: 252

15:45 COFFEE BREAK/POSTERS/EXHIBITION - Ballroom Foyer

SESSION:
CompositeMonPM3-R8

**Monteiro International Symposium on
Composite, Ceramic & Nano Materials
Processing, Characterization &
Applications (10th Intl. Symp.)**

Mon. 21 Oct. 2024 / Room: **Ariadni B**

Session Chairs: Afonso Rangel Garcez De Azevedo; Henry Alonso Colorado Lopera

16:05: [CompositeMonPM309] OS

SIMULATION OF A HYPOTHETICAL PWR FUEL ELEMENT WITH MOLYBDENUM-DOPEED 316 STEEL CLADDING

Thomaz Jacintho Lopes¹; Ary Machado De Azevedo²; Marcos Paulo Cavaliere de Medeiros²; [Sergio Monteiro](#)²; Fernando Manuel Araújo Moreira²

¹Military Institute of Engineering, Duque de Caxias, Brazil; ²Military Institute of Engineering, Rio de Janeiro, Brazil

Paper ID: 211

16:25: [CompositeMonPM310] OS

SIMULATION OF A HYPOTHETICAL PWR FUEL ASSEMBLY FEATURING MOLYBDENUM-DOPEED ZIRCALOY CLADDING

Thomaz Jacintho Lopes¹; Ary Machado De Azevedo²; Marcos Paulo Cavaliere de Medeiros²; [Sergio Monteiro](#)²; Fernando Manuel Araújo Moreira²

¹Military Institute of Engineering, Duque de Caxias, Brazil; ²Military Institute of Engineering, Rio de Janeiro, Brazil

Paper ID: 212

16:45: [CompositeMonPM311] OS

COMPARATIVE CRITICALITY ASSESSMENT OF A HYPOTHETICAL FUEL ELEMENT WITH 316 STAINLESS STEEL-CLAD RODS DOPED WITH SiC THROUGH COMPUTATIONAL SIMULATION: AN UPDATED ANALYSIS

Ary Machado De Azevedo¹; Thomaz Jacintho Lopes²; [Sergio Monteiro](#)¹; Marcos Paulo Cavaliere de Medeiros¹; Fernando Manuel Araújo Moreira¹; André Ben-Hur Da Silva Figueiredo¹

¹Military Institute of Engineering, Rio de Janeiro, Brazil; ²Military Institute of Engineering, Duque de Caxias, Brazil

Paper ID: 219

17:05: [CompositeMonPM312] OS

SIMULATION OF A HYPOTHETICAL PWR FUEL ELEMENT WITH 316 STEEL CLADDING ENHANCED BY GRAPHENE NANOTUBES

Thomaz Jacintho Lopes¹; Ary Machado De Azevedo²; [Sergio Monteiro](#)²; Marcos Paulo Cavaliere de Medeiros²; Fernando Manuel Araújo Moreira²

¹Military Institute of Engineering, Duque de Caxias, Brazil; ²Military Institute of Engineering, Rio de Janeiro, Brazil

Paper ID: 206

17:25 POSTERS/EXHIBITION - Ballroom Foyer

SESSION: CompositeMonPM4-R8	Monteiro International Symposium on Composite, Ceramic & Nano Materials Processing, Characterization & Applications (10th Intl. Symp.)
Mon. 21 Oct. 2024 / Room: Ariadni B	
<u>Session Chairs:</u> Sergio Monteiro	

17:30: [CompositeMonPM413] OS

ADDITIVE MANUFACTURING OF SILICON CARBIDE CERAMICS USED IN ARMOR SYSTEMS: A REVIEW

Marllon Fraga Silva¹

¹Military Institute of Engineering, Rio de Janeiro, Brazil

Paper ID: 272

17:50: [CompositeMonPM414] OS

THERMAL ANALYSIS, MICROSCOPY, SPECTROSCOPY, AND DIFFRACTION APPLIED TO A POLYMER-METAL-ORGANIC COMPOSITE (PMOC)

Thays De Almeida Marinho Farzat¹; **Thomaz Jacintho Lopes**²; Sergio Monteiro¹

¹Military Institute of Engineering, Rio de Janeiro, Brazil; ²Military Institute of Engineering, Duque de Caxias, Brazil

Paper ID: 353

18:10: [CompositeMonPM415] OS

THE EMBIRA BARK FIBER: A SUSTAINABLE AMAZON TAPE

Marc Meyers¹; Sheron S. Tavares²; Lucas Neuba³; Henry Alonso Colorado Lopera⁴;

Sergio Monteiro⁵

¹University of California San Diego, Del Mar, United States; ²University of California, San Diego, United States; ³Military Institute of Engineering, Volta Redonda, Brazil;

⁴Universidad de Antioquia, Medellín, Colombia; ⁵Military Institute of Engineering, Rio de Janeiro, Brazil

Paper ID: 512

18:30: [CompositeMonPM416] OS

EVALUATION OF MICROBIOLOGICAL BIOCOMPATIBILITY AFTER SYNTHESIS AND PRODUCTION OF BRUXITE CERAMIC NANOPOWDERS FROM NATURAL REAGENTS

Ingrid R De Lima¹; Charle Correia Da Silva²; Larah Cabral³; Thayane Pinto³; **Marcos De Campos**¹

¹Federal Fluminense University, Volta Redonda, Brazil; ²UFF, Volta Redonda, Brazil;

³UERJ, Resende, Brazil

Paper ID: 518

19:30 THEME BUFFET DINNER & SHOW - Secret Garden (outdoor)

08:00 SUMMIT PLENARY - Marika A Ballroom

12:00 LUNCH/POSTERS/EXHIBITION - Red Pepper

SESSION:
IronMonPM1-R9

**Leite International Symposium (10th
Intl. Symp. on Advanced Sustainable
Iron & Steel Making)**

Mon. 21 Oct. 2024 / Room: **Ariadni C**

Session Chairs: Marcos De Campos; GS Mahobia

13:00: [IronMonPM101] OS Plenary

A CAREER DEDICATED TO THE SUSTAINABLE SUCCESS OF THE IRON AND STEEL INDUSTRY

Sergio Leite De Andrade¹

¹Usiminas, Belo Horizonte, Brazil

Paper ID: 498

13:20: [IronMonPM102] OS Keynote

DRI – DIRECT REDUCTION OF IRON: CHALLENGES FOR THE ECONOMICAL FEASIBILITY OF HYDROGEN FOR REDUCTION

Jose Adilson De Castro¹; **Marcos De Campos**¹; Giulio Antunes De Medeiros¹

¹Federal Fluminense University, Volta Redonda, Brazil

Paper ID: 338

13:40: [IronMonPM103] OS

A BRIEF HISTORY OF SIDERURGY

Marcos De Campos¹; **Jose Adilson De Castro**¹

¹Federal Fluminense University, Volta Redonda, Brazil

Paper ID: 311

14:00: [IronMonPM104] OS Invited

HYDROGEN REDUCTION STUDIES OF A LOW-GRADE MULTIMETALLIC MAGNETITE ORE

GS Mahobia¹

¹Indian Inst. of Technology (Banaras Hindu University), Varanasi, India

Paper ID: 116

14:20 POSTERS/EXHIBITION - Ballroom Foyer

SESSION:
IronMonPM2-R9

Leite International Symposium (10th Intl. Symp. on Advanced Sustainable Iron & Steel Making)

Mon. 21 Oct. 2024 / Room: **Ariadni C**

Session Chairs: Jose Adilson De Castro; Alena Upolovnikova

14:25: [IronMonPM205] OS

CONTROL OF BLAST FURNACE SMELTING USING DIGITAL MATHEMATICAL MODELS

Andrey Dmitriev¹; Galina Vitkina²; Maxim Zolotykh²

¹Institute of Metallurgy of the Ural Branch of the Russian Academy of Sciences, Ekaterinburg, Russian Federation; ²Institute of Metallurgy of Ural Branch of Russian, Amundsen st., Russia

Paper ID: 5

14:45: [IronMonPM206] OS

IMPROVEMENT OF MATHEMATICAL MODELS OF GAS DYNAMICS AND HEAT TRANSFER OF THE BLAST FURNACE PROCESS USING SYNTHESIS GAS

Andrey Dmitriev¹; Galina Vitkina²; Nicolay Barbin¹; Michael Tsimbalist³; Julia Burova¹

¹Institute of Metallurgy of the Ural Branch of the Russian Academy of Sciences, Ekaterinburg, Russian Federation; ²Institute of Metallurgy of Ural Branch of Russian, Amundsen st., Russia; ³Institute of Metallurgy Ural Division of Russian Academy of Sciences, Ekaterinburg, Russian Federation

Paper ID: 6

15:05: [IronMonPM207] OS

ANALYZING TECHNOLOGICAL ALTERNATIVES FOR SHAFT FURNACE OPERATION BASED ON HYDROGEN AND SELF-REDUCING PELLETS CONTAINING BIOMASS

Jose Adilson De Castro¹; Giulio Antunes De Medeiros¹; Marcos De Campos¹

¹Federal Fluminense University, Volta Redonda, Brazil

Paper ID: 333

15:25: [IronMonPM208] OS

EVALUATION OF COMBINED INJECTION OF HYDROGEN AND PULVERIZED CHARCOAL AS AN ALTERNATIVE FOR PARTIAL DECARBONIZATION OF LARGE BLAST FURNACES

Jose Adilson De Castro¹; Marcos De Campos¹; Giulio Antunes De Medeiros¹

¹Federal Fluminense University, Volta Redonda, Brazil

Paper ID: 335

15:45 COFFEE BREAK/POSTERS/EXHIBITION - Ballroom Foyer

SESSION: IronMonPM3-R9	Leite International Symposium (10th Intl. Symp. on Advanced Sustainable Iron & Steel Making)
Mon. 21 Oct. 2024 / Room: Ariadni C	
<u>Session Chairs:</u> Marcos De Campos; Bhaskar Topalle	

16:05: [IronMonPM309] OS Keynote

APPLICATION OF RARE EARTH METAL OXIDES IN SLAGS OF LADLE METALLURGY FOR THE PRODUCTION OF PIPE STEEL

Anatoly Babenko¹; **Alena Upolovnikova**¹

¹Institute of Metallurgy, Ekaterinburg, Russian Federation

Paper ID: 34

16:25: [IronMonPM310] OS Keynote

CONTROL OF INCLUSIONS AND SEGREGATION IN PRODUCT IN THE MANUFACTURE OF TYRE CORD STEEL GRADES

Bhaskar Topalle¹

¹Tata Steel Limited, Jamshedpur, India

Paper ID: 41

© FLOGEN 2024

79 | www.flogen.org/sips2024

16:45: [IronMonPM311] OS

INNOVATIVE TECHNOLOGICAL SOLUTIONS FOR THE PRODUCTION OF NEW GENERATION CONSTRUCTION STEEL

Anatoly Babenko¹; Alena Upolovnikova¹; Artem Smetannikov²; Lyudmila Mikhailova²

¹Institute of Metallurgy, Ekaterinburg, Russian Federation; ²Institute of Metallurgy, Ural Branch of the Russian Academy of Sciences, Ekaterinburg, Russian Federation

Paper ID: 40

17:05: [IronMonPM312] OS

THE INFLUENCE OF ENVIRONMENTAL PRESSURES ON THE TRANSITION OF MATERIALS USED IN INDUSTRIAL PLANTS OVER THE YEARS

Davi Santos¹; Grazielle Pessoa Do Império Borges¹

¹Federal University of Ouro Preto, Ouro Preto, Brazil

Paper ID: 113

17:25 POSTERS/EXHIBITION - Ballroom Foyer

SESSION: IronMonPM4-R9	Leite International Symposium (10th Intl. Symp. on Advanced Sustainable Iron & Steel Making)
Mon. 21 Oct. 2024 / Room: Ariadni C	
<u>Session Chairs:</u> Dimas Coura; Dhanraj Patil	

17:30: [IronMonPM413] OS

GENERATION OF ELECTRIC POWER FROM MOBILE PROCESS USING MAIZE WASTE AND BAMBOO BIOMASS

Dimas Coura¹; Paulo Assis²; Elisângela Leal²; Luiz Leite²

¹IFMG Campus Ouro, Branco, Conselheiro Lafaiete, Brazil; ²Federal University of Ouro Preto, Ouro Preto, Brazil

Paper ID: 115

17:50: [IronMonPM414] OS

CONTACT SHOE WISE CURRENT MEASUREMENT IN A SUBMERGED ELECTRIC ARC FURNACE – PROCEDURE, ADVANTAGES & LIMITATIONS

Bhabesh Kumar Mohanty¹

¹ArcelorMittal Nippon Steel, Barbil, India

Paper ID: 197

18:10: [IronMonPM415] OS

IMPACT OF OXYGEN INJECTION ON IRON ORE SINTERING PROCESS

Dhanraj Patil¹

¹JSW Steel Pvt. Ltd., Toranagallu, India

Paper ID: 75

19:30 THEME BUFFET DINNER & SHOW - Secret Garden (outdoor)

08:00 SUMMIT PLENARY - Marika A Ballroom

12:00 LUNCH/POSTERS/EXHIBITION - Red Pepper

SESSION: EnvironmentalMonPM1-R10	11th Intl. Symp. on Environmental, Policy, Management, Health, Economic, Financial, Social Issues Related to Technology & Scientific Innovation
Mon. 21 Oct. 2024 / Room: Dazzle D.	
<u>Session Chairs:</u> Alda Osmeni; Carolyn Merchant	

13:00: [EnvironmentalMonPM101] OL
FROM THE CONTROL OF NATURE TO PARTNERSHIP - PART 1
Carolyn Merchant¹

¹University of California, Berkeley, United States
Paper ID: 231

13:20: [EnvironmentalMonPM102] OL
FROM THE CONTROL OF NATURE TO PARTNERSHIP - PART 2
Carolyn Merchant¹

¹University of California, Berkeley, United States
Paper ID: 524

13:40: [EnvironmentalMonPM103] OS
**MICROPLASTICS AND HEAVY METALS DYNAMICS PRESENT IN SEDIMENTS OF
ISHMI RIVER. A METHODOLOGY OVERVIEW**

Alda Osmeni¹; Ardian Maci²; Ramadan Firanj³; Arjana Ylli³; Fatos Ylli³
¹European University of Tirana, Tirana, Albania; ²Agriculture University of Tirana,
Tirana, Albania; ³University of Tirana, Tirana, Albania
Paper ID: 44

14:00: [EnvironmentalMonPM104] OS
**PRAY-PREDATOR MODEL APPLIED TO EVALUATE THE PRICE OF
COMMODITIES: EXTENSION FOR WORLD ECONOMY**

Marcos De Campos¹
¹Federal Fluminense University, Volta Redonda, Brazil
Paper ID: 516

14:20 POSTERS/EXHIBITION - Ballroom Foyer

SESSION: RecyclingMonPM2-R10	10th Intl. Symp. on Sustainable Materials Recycling Processes & Products
Mon. 21 Oct. 2024 / Room: Dazzle D.	
<u>Session Chairs:</u> Jie Liu; Fang Wang	

14:25: [RecyclingMonPM205] OL

THE TWO FACES OF CHROME

Karel Kolomaznik¹; Juan Carlos Beltran-Prieto²; Michaela Barinova¹

¹Tomas Bata University in Zlin, Zlin, Czech Republic; ²Tomas Bata University in Zlin, Faculty of Applied Informatics, ZLIN, Czech Republic

Paper ID: 469

14:45: [RecyclingMonPM206] OL

OPTIMIZATION OF MgCl₂-ASSISTED NEUTRAL PROTEASE SYSTEM FOR SUSTAINABLE BEAMHOUSE PROCESSING

Keyong Tang¹

¹Zhengzhou University, Zhengzhou, China

Paper ID: 463

15:05: [RecyclingMonPM207] OL

PYROLYSIS KINETICS AND PRODUCT ANALYSIS OF VEGETABLE-TANNED LEATHER BY TG AND TG-FTIR-MS

Fang Wang¹

¹Zhengzhou University, Zhengzhou, China

Paper ID: 464

15:25: [RecyclingMonPM208] OS

THERMAL DEGRADATION KINETICS OF CHROME-TANNED LEATHER: EFFECT OF RE-TANNING AND FAT-LIQUORING

Jie Liu¹

¹Zhengzhou University, Zhengzhou, China

Paper ID: 123

15:45 COFFEE BREAK/POSTERS/EXHIBITION - Ballroom Foyer

SESSION: RecyclingMonPM3-R10	10th Intl. Symp. on Sustainable Materials Recycling Processes & Products
Mon. 21 Oct. 2024 / Room: Dazzle D.	
Session Chairs: Mingrui Zhang; Qijue Chen	

16:05: [RecyclingMonPM309] OS

A NOVEL STRATEGY FOR COLLAGEN EXTRACTION FROM TANNERY WASTES

Qijue Chen¹; Zhuoer Jiang¹; Keyong Tang¹

¹Zhengzhou University, Zhengzhou, China

Paper ID: 180

16:25: [RecyclingMonPM310] OS

TOWARDS SUSTAINABLE LEATHER MANUFACTURING: A ONE-STEP ENZYMATIC BEAMHOUSE WITH SIGNIFICANT ECONOMICAL AND ENVIRONMENTAL BENEFITS

Mingrui Zhang¹

¹Zhengzhou University, Zhengzhou, China

Paper ID: 58

16:45: [RecyclingMonPM311] OL

MESOSTRUCTURED COLLAGEN FROM THE BOVINE ACHILLES TENDON AS A STRUCTURAL UNIT OF COLLAGEN FILMS

Jiaqi Li¹; Ying Pei¹

¹Zhengzhou University, Zhengzhou, China

Paper ID: 342

17:05: [RecyclingMonPM312] OS

MELT EXTRUDED POLYLACTIC ACID (PLA)/ PINEAPPLE LEAF FIBRE (PALF) BIO-COMPOSITES: EFFECT OF GRAFTING LEVEL AND FIBRE LOADING ON THERMAL AND MECHANICAL PROPERTIES.

Sethupathi Murugan¹

¹Nelson Mandela University, Summerstand, South Africa

Paper ID: 22

17:25 POSTERS/EXHIBITION - Ballroom Foyer

SESSION: RecyclingMonPM4-R10	10th Intl. Symp. on Sustainable Materials Recycling Processes & Products
Mon. 21 Oct. 2024 / Room: Dazzle D.	
Session Chairs: <u>Jiaqi Li</u>	

17:30: [RecyclingMonPM413] OS

REUSE OF MINING TAILINGS IN THE MANUFACTURING OF INTERLOCKING BLOCKS

Igor Diniz¹; Amanda Mendes, Sra¹; Vinícius Park²; Leonardo Granato³

¹Federal University of Ouro Preto, Ouro Preto, Brazil; ²Ouro Preto, Brazil; ³Federal University of Ouro Preto, Ponte Nova, Brazil

Paper ID: 376

17:50: [RecyclingMonPM414] OS

UTILIZATION OF MINING WASTE IN THE PRODUCTION OF SUSTAINABLE CONSTRUCTION MATERIALS THROUGH GRAVIMETRIC SEPARATION METHODS

Amanda Mendes, Sra¹; **Igor Diniz**¹; Vinícius Park²; Leonardo Granato³; Paulo Assis¹; Wilson José Guerra⁴; Luiza Nobuyasu⁵

¹Federal University of Ouro Preto, Ouro Preto, Brazil; ²Ouro Preto, Brazil; ³Federal University of Ouro Preto, Ponte Nova, Brazil; ⁴Gorceix Foundation, Ouro Preto, Brazil;

⁵Escola de Minas, Ouro Preto, Brazil

Paper ID: 377

18:10: [RecyclingMonPM415] OS

SUSTAINABLE MATERIALS RECYCLING FOR PERMANENT MAGNETS AND Li-ION BATTERIES

Ikenna Nlebedim¹

¹Ames National Laboratory, Ames, United States

Paper ID: 280

19:30 THEME BUFFET DINNER & SHOW - Secret Garden (outdoor)

Tuesday

08:00 SUMMIT PLENARY - Marika A Ballroom

12:00 LUNCH/POSTERS/EXHIBITION - Red Pepper

SESSION: OxidativeTuePM1-R1	Abe International Symposium (4th Intl. Symp. on Oxidative Stress for Sustainable Development of Human Beings)
Tue. 22 Oct. 2024 / Room: Marika A	
Session Chairs: Fuhua Yang; Haruhiko Inufusa	

13:00: [OxidativeTuePM101] OS Keynote

NEW ANTIOXIDANT TREATMENT FOR DEPRESSION

Fuhua Yang¹; Yoshiaki Harakawa¹; Haruhiko Inufusa¹

¹Gifu University, Gifu, Japan

Paper ID: 117

13:20: [OxidativeTuePM102] OS Invited

BASIC RESEARCH ON EVALUATION OF RADICAL SCAVENGING ABILITY OF TWENDEE X

Koji Fukui¹; Fuhua Yang²; Akari Nakamura¹; Yoshiaki Harakawa²; Toshikazu Yoshikawa³; Haruhiko Inufusa²

¹Shibaura Institute of Technology, Saitama, Japan; ²Gifu University, Gifu, Japan; ³Louis Pasteur Center, Kyoto, Japan

Paper ID: 143

13:40: [OxidativeTuePM103] OS Invited

POSSIBLE INVOLVEMENT OF OXIDATIVE STRESS IN VOCAL LOADING INDUCED BY BRAINSTEM VOCALIZATION IN GUINEA PIGS

Yoichiro Sugiyama¹; Mami Kaneko²; Yuki Sato¹; Shigeru Hirano³; Haruhiko Inufusa⁴; Toshikazu Yoshikawa⁵

¹Saga University, Saga, Japan; ²Kyoto Prefectural University of Medicine, Kyoto, Japan; ³Kyoto Prefectural U. of Medicine, Kyoto, Japan; ⁴Gifu University, Gifu, Japan; ⁵Louis Pasteur Center, Kyoto, Japan

Paper ID: 147

14:00: [OxidativeTuePM104] OS Keynote

OXIDATIVE STRESS IN REPERFUSION

Haruhiko Inufusa¹; Fuhua Yang¹; Yoshiaki Harakawa¹

¹Gifu University, Gifu, Japan

Paper ID: 158

14:20 POSTERS/EXHIBITION - Ballroom Foyer

SESSION:
OxidativeTuePM2-R1

**Abe International Symposium (4th Intl.
Symp. on Oxidative Stress for
Sustainable Development of Human
Beings)**

Tue. 22 Oct. 2024 / Room: **Marika A**

Session Chairs: Haruhiko Inufusa; Yuki Sato

14:25: [OxidativeTuePM205] OS Invited

**POTENTIAL INVOLVEMENT OF OXIDATIVE STRESS IN ALLERGIC
RESPIRATORY DISEASES: A REVIEW AND POSSIBLE ASSOCIATIONS WITH
AIRWAY HYPERSENSITIVITY**

Yuki Sato¹; **Yoichiro Sugiyama**¹; **Shigeru Hirano**²; **Fuhua Yang**³; **Haruhiko Inufusa**³;
Toshikazu Yoshikawa⁴

¹Saga University, Saga, Japan; ²Kyoto Prefectural U. of Medicine, Kyoto, Japan; ³Gifu
University, Gifu, Japan; ⁴Louis Pasteur Center, Kyoto, Japan

Paper ID: 317

14:45: [OxidativeTuePM206] OS Keynote

**DUAL SOURCES AND FUNCTIONS OF MELATONIN: REDOX HOMEOSTASIS AND
CIRCADIAN REGULATION**

Russel Reiter¹; Ramaswamy Sharma²

¹UT Health San Antonio, San Antonio, United States; ²University of the Incarnate Word
School of Osteopathic Medicine, San Antonio, United States

Paper ID: 18

15:05: [OxidativeTuePM207] OS Invited

TELOMERE PROFILES AS A BIOMARKER IN RELATION TO AGEING DISEASES

Nedime Serakinci¹; Huseyin Cagsin²; Merdiye Mavis²; Rameez Hassan Pirzada³

¹Health Advisor , Lefkosa, Turkey; ²Near East University Faculty of Art and Sciences,
Department of Molecular Biology and Genetics, North Cyprus, TRNC , Nicosia, Cyprus;

³Department of Molecular Science and Technology, Ajou University, Suwon 16499,
Korea, Suwon, South Korea

Paper ID: 194

15:25: [OxidativeTuePM208] OL Invited

NUTRITION FOR HUMAN HEALTH AND PLANETARY SUSTAINABILITY

Martin Kussmann^{1, 2}

¹Kussmann Biotech GmbH, Nordkirchen, Germany; ²Competence Center for Nutrition
(Kern), Freising, Germany

Paper ID: 23

15:45 COFFEE BREAK/POSTERS/EXHIBITION - Ballroom Foyer

08:00 SUMMIT PLENARY - Marika A Ballroom

12:00 LUNCH/POSTERS/EXHIBITION - Red Pepper

SESSION:
PhysicalTuePM1-R2

**Lipkowski International Symposium
(4th Intl. Symp. on Physical Chemistry
& Its Applications for Sustainable
Development)**

Tue. 22 Oct. 2024 / Room: **Marika B1**

Session Chairs: Junji Saida; Bogdan Palosz

13:00: [PhysicalTuePM101] OS Plenary

POROUS MOLECULES AND CRYSTALS, MODERN CLASS OF BERTHOLIDES

Janusz Lipkowski¹

¹Cardinal Stefan Wyszyński U. in Warsaw, Warszawa, Poland

Paper ID: 73

13:20: [PhysicalTuePM102] OS Keynote

**STRUCTURE OF NANOCRYSTALS: OLD PROBLEM REQUIRES A NEW
APPROACH**

Bogdan Palosz¹

¹Polish Academy of Sciences, Warsaw, Poland

Paper ID: 263

13:40: [PhysicalTuePM103] OS

QUANTUM CRYSTALLOGRAPHY

Krzysztof Woźniak¹

¹University of Warsaw, Warszawa, Poland

Paper ID: 55

14:00: [PhysicalTuePM104] OL

**INFLUENCE OF THE CRYSTAL STRUCTURE ON THE MAGNETIC ORDERING IN
R₂Ni₂In-TYPE COMPOUNDS (R-RARE EARTH ELEMENTS)**

Andrzej Szytuła¹

¹Jagiellonian University, Krakow, Poland

Paper ID: 96

14:20 POSTERS/EXHIBITION - Ballroom Foyer

SESSION:
MoltenTuePM2-R2

**10th Intl. Symp. on Sustainable Molten
Salt, Ionic & Glass-forming Liquids &
Powdered Materials**

Tue. 22 Oct. 2024 / Room: **Marika B1**

Session Chairs: Ramesh Gardas; Fan Meng; Amr Henni

14:25: [MoltenTuePM205] OS
ENCAPSULATION OF TWO TASK-SPECIFIC IONIC LIQUIDS INTO ZIF-8 FOR ENHANCED CO₂ CAPTURE

Amr Henni¹

¹University of Regina, Regina, Canada
Paper ID: 428

14:45: [MoltenTuePM206] OS Keynote
TAILORING THE PHYSICO-CHEMICAL PROPERTIES OF IONIC LIQUIDS FOR ENHANCED SORPTION AND EXTRACTION PROCESSES: TOWARDS SUSTAINABLE SOLUTIONS

Ramesh Gardas¹

¹Indian Institute of Technology Madras, Chennai, India
Paper ID: 7

15:05: [MoltenTuePM207] OS
EXPLORING THE SYNERGISTIC EFFECTS AND APPLICATIONS OF BINARY MIXTURES OF IONIC LIQUIDS: A STATE-OF-THE-ART REVIEW

Devinder Pal Singh¹

¹Acoustics Research Center, Mississauga, Canada
Paper ID: 43

15:45 COFFEE BREAK/POSTERS/EXHIBITION - Ballroom Foyer

08:00 SUMMIT PLENARY - Marika A Ballroom

12:00 LUNCH/POSTERS/EXHIBITION - Red Pepper

SESSION: MathematicsTuePM1-R3	Rowlands International Symposium (7th Intl. Symp. on Sustainable Mathematics Applications)
Tue. 22 Oct. 2024 / Room: Marika B2	
<u>Session Chairs:</u> Svetlin Georgiev; Peter Rowlands	

13:00: [MathematicsTuePM101] OL
BACK TO THE FUTURE OF NATURAL STRUCTURE

Erik Trell¹

¹Linköping University, Linköping, Sweden
Paper ID: 139

13:20: [MathematicsTuePM102] OS Keynote
INTRODUCTION TO ISO-PLANE GEOMETRY

Svetlin Georgiev¹

¹Sorbonne University, Paris, France
Paper ID: 193

13:40: [MathematicsTuePM103] OS
TOUPIN-MINDLIN FIRST STRAIN GRADIENT ELASTICITY FOR CUBIC AND ISOTROPIC MATERIALS AT SMALL SCALES

Markus Lazar¹; Eleni Agiasofitou¹

¹Karlsruhe Institute of Technology (KIT), Karlsruhe, Germany
Paper ID: 106

14:00: [MathematicsTuePM104] OS
MODELLING BAND-GAPS USING NONLOCAL ELASTICITY OF KLEIN-GORDON TYPE WITH INTERNAL LENGTH AND TIME SCALES

Eleni Agiasofitou¹; Markus Lazar¹

¹Karlsruhe Institute of Technology (KIT), Karlsruhe, Germany
Paper ID: 84

14:20 POSTERS/EXHIBITION - Ballroom Foyer

SESSION: MathematicsTuePM2-R3	Rowlands International Symposium (7th Intl. Symp. on Sustainable Mathematics Applications)
Tue. 22 Oct. 2024 / Room: Marika B2	
<u>Session Chairs:</u> Peter Rowlands; Mike Mikalajunas	

14:25: [MathematicsTuePM205] OS
THE GRADUAL ABANDONMENT OF MANY TYPES OF WELL KNOWN EXPERIMENTAL BASED MODELS IN FAVOR OF A MORE UNIVERSAL ALGEBRAIC THEORY FROM THE GENERAL APPLICATION OF A UNIFIED THEORY OF ANALYTICAL INTEGRATION (WORKSHOP 1)

Mike Mikalajunas¹

¹CIME, iLe Perrot, Canada
Paper ID: 513

14:45: [MathematicsTuePM206] OS
THE GRADUAL ABANDONMENT OF MANY TYPES OF WELL KNOWN EXPERIMENTAL BASED MODELS IN FAVOR OF A MORE UNIVERSAL ALGEBRAIC THEORY FROM THE GENERAL APPLICATION OF A UNIFIED THEORY OF ANALYTICAL INTEGRATION (WORKSHOP 2)

Mike Mikalajunas¹

¹CIME, iLe Perrot, Canada
Paper ID: 514

15:05: [MathematicsTuePM207] OL
SYMBIOGENESIS SUSTAINS THE SINGULARITY OF LIFE - PART 1

John Torday¹

¹UCLA, Philadelphia, United States
Paper ID: 293

15:25: [MathematicsTuePM208] OL

SYMBIOGENESIS SUSTAINS THE SINGULARITY OF LIFE - PART 2

John Torday¹

¹UCLA, Philadelphia, United States

Paper ID: 313

15:45 COFFEE BREAK/POSTERS/EXHIBITION - Ballroom Foyer

SESSION: MathematicsTuePM3-R3	Rowlands International Symposium (7th Intl. Symp. on Sustainable Mathematics Applications)
Tue. 22 Oct. 2024 / Room: Marika B2	
<u>Session Chairs:</u> TBA	

16:05: [MathematicsTuePM309] OS

**ARTIFICIAL INTELLIGENCE PROGRAM IMPLEMENTATION IN STEM
EDUCATION:-CASES OF ETHIOPIA STEM CENTER**

Yohannes Degefu¹

¹Ethiopian Artificial Intelligence Institute, Addis Ababa, Ethiopia

Paper ID: 316

17:25 POSTERS/EXHIBITION - Ballroom Foyer

08:00 SUMMIT PLENARY - Marika A Ballroom

12:00 LUNCH/POSTERS/EXHIBITION - Red Pepper

SESSION: PharmaceuticalTuePM1-R4	Leuenberger International Symposium on Pharmaceutical Sciences and Industrial Applications for Sustainable Development
Tue. 22 Oct. 2024 / Room: Minos	
<u>Session Chairs:</u> Ibrahim Karim; Hassan Tarabishi	

13:00: [PharmaceuticalTuePM101] OS

**THE REDUCTION OF SIDE EFFECTS OF PHARMACEUTICAL DRUGS THROUGH
BIOGEOMETRY LIFE FORCE BALANCING QUALITIES**

Ibrahim Karim¹

¹BioGeometry Energy Systems, Cairo, Egypt

Paper ID: 204

13:20: [PharmaceuticalTuePM102] OS

WATER MUCH MORE THAN H2O BEYOND CONVENTIONAL CHEMISTRY AND PHYSICS

Hassan Tarabishi¹; Alhassan Hamad¹

¹Somicon Industrial, Sharjah, United Arab Emirates

Paper ID: 339

13:40: [PharmaceuticalTuePM103] OL

THE CONTROL OF SUSTAINABILITY AND RESISTIVITY OF BACTERIA USING ISOTHERMAL MICROCALORIMETRY.

Vinzenz Von Tscherner¹; Beat Goepfert²

¹Calbact AG Kaiseraugst Switzerland, Rheinfelden, Switzerland; ²Calbact AG, Kaiseraugst, Switzerland

Paper ID: 534

14:00: [PharmaceuticalTuePM104] OS

“SHOULD I INVEST IN PHARMACEUTICAL COMPANIES OR START-UPS?”

Keith Simpson¹

¹Ksimpson Investments LLC, Lady Lake, United States

Paper ID: 83

14:20 POSTERS/EXHIBITION - Ballroom Foyer

SESSION: LawsTuePM2-R4	Dibra International Symposium (4th Intl Symp on Laws & their Applications for Sustainable Development)
Tue. 22 Oct. 2024 / Room: Minos	
Session Chairs: Shulamit Almog; Besfort Rrecaj	

14:25: [LawsTuePM205] OL

LIABILITY ISSUES OF DATA COLLECTION, PROCESSING AND EXCHANGE BY BUSINESSES WITHIN THE AI ACT FRAMEWORK

Georgios Kotlidas¹

¹Self-employed, "Rythmisis" Institute for AI Law, Thessaloniki, Greece

Paper ID: 395

14:45: [LawsTuePM206] OS Invited

LEGAL DUTY TO MITIGATE CLIMATE CHANGES: THE 2024 LANDMARK RULING OF THE ECtHR AND ITS RAMIFICATIONS FOR THE FUTURE CASELOAD AND STATE OBLIGATIONS TOWARDS CLIMATE CHANGES

Besfort Rrecaj¹

¹University of Prishtina, Pristina, Kosovo

Paper ID: 295

15:05: [LawsTuePM207] OS Keynote
THE ORIGINS OF THE LAW IN HOMER
Shulamit Almog¹

¹University of Haifa, Haifa, Israel
Paper ID: 54

15:25: [LawsTuePM208] OL
CRYPTO-CURRENCY AND LEGAL VIEW IN BANGLADESH
Md. Mahmudul Hasan Towhid¹

¹Harmony Law Consortium, Dhaka, Bangladesh
Paper ID: 279

15:45 COFFEE BREAK/POSTERS/EXHIBITION - Ballroom Foyer

SESSION: PharmaceuticalTuePM3-R4	Leuenberger International Symposium on Pharmaceutical Sciences and Industrial Applications for Sustainable Development
Tue. 22 Oct. 2024 / Room: Minos	
Session Chairs: Hassan Tarabishi; Martin Bultmann	

16:05: [PharmaceuticalTuePM309] OS
**THE APPLICATION OF BIOGEOMETRY DESIGN TO FOR SPECIAL ABILITIES
ENVIRONMENTS**

Ibrahim Karim¹
¹BioGeometry Energy Systems, Cairo, Egypt
Paper ID: 205

16:25: [PharmaceuticalTuePM310] OS
**ENERGIZED STRUCTURED WATER, FREQUENCIES AND HEALTH EXAMPLE OF
STRUCTURED WATER BASED BIOCIDES**

Hassan Tarabishi¹; Alhassan Hamad¹; Hans George Breitmoser²
¹Somicon Industrial, Sharjah, United Arab Emirates; ²Hyperdes Water Technology,
Wörnitz, Germany
Paper ID: 391

16:45: [PharmaceuticalTuePM311] OS
SUSTAINABILITY IN BIG PHARMA – CAN SUPERCOMPUTING DO THE MAGIC?
Martin Bultmann¹

¹University of Heidelberg, Heidelberg, Germany
Paper ID: 101

17:05: [PharmaceuticalTuePM312] OS
FORMULATION DEVELOPMENT OF CO-CRYSTAL COMPOUND IN SHIONOGI
Go Kimura¹

¹Shionogi & Co., Ltd., Amagasaki, Japan
Paper ID: 167

17:25 POSTERS/EXHIBITION - Ballroom Foyer

SESSION: PharmaceuticalTuePM4-R4	Leuenberger International Symposium on Pharmaceutical Sciences and Industrial Applications for Sustainable Development
Tue. 22 Oct. 2024 / Room: Minos	
<u>Session Chairs:</u> Go Kimura	

17:30: [PharmaceuticalTuePM413] OS
SMART CITIES EFFECT ON CLIMATE CHANGE

Ibrahim Karim¹

¹BioGeometry Energy Systems, Cairo, Egypt
Paper ID: 243

17:50: [PharmaceuticalTuePM414] OS
**THE QUEST FOR A SCIENTIFIC EXPLANATION OF THE PHENOMENON BEHIND
DOWSING / WATER WITCHING**

Markus Hermann Jordi-Koi¹

¹retired from F. Hoffmann-La Roche Ltd, Itingen, Switzerland
Paper ID: 521

18:10: [PharmaceuticalTuePM415] OS
**IMPROVING ENERGY EFFICIENCY AND REDUCING THE GREENHOUSE GAS
FOOTPRINT OF THE GLOBAL COLD CHAIN, USING PHYSICS-BASED MODELING
(DIGITAL TWIN) METHODS AND CLOUD-BASED COMPUTING**

Leo Eskin¹; Harvey Rubin²

¹SnoFox Sciences, Inc., Darnestown, United States; ²University of Pennsylvania,
Philadelphia, United States
Paper ID: 145

18:30: [PharmaceuticalTuePM416] OL
**DRAWBACKS TO HEALTH AND ENVIRONMENTAL SUSTAINABILITY FROM
LARGE SCALE OVERFERTILIZING WITH NITROGEN-BASED SYNTHETIC
FERTILIZERS**

François Comunetti¹; Fred Provenza²

¹4 Winds Farm, Havre, United States; ²Utah State University, Logan, United States
Paper ID: 274

20:00 GALA DINNER/AWARDS CEREMONY/SHOW - Marika A Ballroom

08:00 SUMMIT PLENARY - Marika A Ballroom

12:00 LUNCH/POSTERS/EXHIBITION - Red Pepper

SESSION:

NonferrousTuePM1-R5

**Stelter International Symposium (10th
Intl. Symp. on Sustainable Non-ferrous
Smelting & Hydro/Electrochemical
Processing)**

Tue. 22 Oct. 2024 / Room: **Lida**

Session Chairs: Alexandros Charitos; Lars Felkl

13:00: [NonferrousTuePM101] OS Invited

**PYROMETALLURGICAL RECYCLING OF NICKEL FROM HAZARDOUS WASTES:
RECYCO CASE STUDY**

Jérémy Chaulet¹; Claudia Oosterhof²

¹Aperam, Isbergues, France; ²Aperam, Haan, Germany

Paper ID: 82

13:20: [NonferrousTuePM102] OS Invited

**INDUSTRIAL PROCESS STREAMS FROM NONFERROUS METALLURGY AS A
POTENTIAL SOURCE FOR SCARCE ELEMENTS**

Stefan Steinlechner¹; Kerrin Witt¹; Thomas Wolfgang Howard¹

¹Montanuniversität Leoben, Leoben, Austria

Paper ID: 132

13:40: [NonferrousTuePM103] OS Invited

**PARAMETER VARIATION STUDY TO OPTIMIZE THE EXTRACTION RATE OF
CHROMIUM AND NICKEL FROM STAINLESS STEEL DUST WITH
HYDROCHLORIC ACID**

Thomas Wolfgang Howard¹; Xenia Wimmer¹; Stefan Steinlechner¹

¹Montanuniversität Leoben, Leoben, Austria

Paper ID: 133

14:00: [NonferrousTuePM104] OS Keynote

**HYDROGEN-BASED REDUCTION HIGH-COPPER BEARING SLAGS (AND
SECONDARY SLAG DESIGN FOR FURTHER VALORISATION)**

Lars Felkl¹; Alexandros Charitos¹

¹TU Bergakademie Freiberg, Freiberg, Germany

Paper ID: 183

14:20 POSTERS/EXHIBITION - Ballroom Foyer

SESSION:

NonferrousTuePM2-R5

**Stelter International Symposium (10th
Intl. Symp. on Sustainable Non-ferrous
Smelting & Hydro/Electrochemical
Processing)**

Tue. 22 Oct. 2024 / Room: **Lida**

Session Chairs: Vangelis Palavos-Chesper; Paul Schönherr

14:25: [NonferrousTuePM205] OS Invited

SMART INFLUENCING OF THE HYDROGEN POROSITY IN ALUMINUM CASTINGS

Beate Fankhänel¹; Alexandros Charitos¹; Michael Stelter²

¹TU Bergakademie Freiberg, Freiberg, Germany; ²TU Bergakademie Freiberg, Oberschoena, Germany

Paper ID: 203

14:45: [NonferrousTuePM206] OS Keynote

PYROMETALLURGICAL PROCESS & INFRASTRUCTURAL DEVELOPMENT AT INEMET, TU BERGAKADEMIE FREIBERG

Paul Schönherr¹; Ludwig Blenau²; Alexandros Charitos¹

¹TU Bergakademie Freiberg, Freiberg, Germany; ²Freiberg University of Mining and Technology, Freiberg, Germany

Paper ID: 226

15:05: [NonferrousTuePM207] OS Invited

TIN RESIDUE VALORISATION VIA CARBON NEUTRAL REDUCING AGENTS

Vangelis Palavos-Chesper¹; Ludwig Blenau²; Justus Ihle³; Michael Stelter⁴; Alexandros Charitos¹

¹TU Bergakademie Freiberg, Freiberg, Germany; ²Freiberg University of Mining and Technology, Freiberg, Germany; ³Feinhütte Halsbrücke, Freiberg, Germany; ⁴TU Bergakademie Freiberg, Oberschoena, Germany

Paper ID: 237

15:25: [NonferrousTuePM208] OS Keynote

HOLISTIC RECOVERY OF RECYCLABLE MATERIALS FROM WAELEZ SLAG

Junnile Romero¹; Volker Recksiek¹; Ludwig Blenau²; Norman Kelly¹; Doreen Ebert¹; Bradley Martin Guy¹; Laksmi Kanth Viswamsetty¹; Ari Vaisanen³; Alexandros Charitos⁴; Ajay Patil¹

¹Helmholtz-Zentrum Dresden-Rossendorf, Freiberg, Germany; ²Freiberg University of Mining and Technology, Freiberg, Germany; ³University of Jyväskylä, Jyväskylä, Finland; ⁴TU Bergakademie Freiberg, Freiberg, Germany

Paper ID: 242

15:45 COFFEE BREAK/POSTERS/EXHIBITION - Ballroom Foyer

SESSION: NonferrousTuePM3-R5	Stelter International Symposium (10th Intl. Symp. on Sustainable Non-ferrous Smelting & Hydro/Electrochemical Processing)
Tue. 22 Oct. 2024 / Room: Lida	
Session Chairs: <u>Junnile Romero</u>	

16:05: [NonferrousTuePM309] OS Invited

PRE-TREATMENT OF CASSITERITE FOR TIN DISSOLUTION

Stephen Kwegyir¹; Ehsan Ahmed Ashrafi¹; Lars Felk¹; Ludwig Blenau²; Alexandros Charitos¹; Alexandra Thiere¹

¹TU Bergakademie Freiberg, Freiberg, Germany; ²Freiberg University of Mining and Technology, Freiberg, Germany

Paper ID: 303

16:25: [NonferrousTuePM310] OS Invited

IMPORTANCE OF MATERIAL MICROSTRUCTURE STUDIES FOR THE OPTIMIZATION OF THE ROASTING PROCESSES IN NON-FERROUS METALLURGY

Olga Mishina¹; Aleksandra Mitovski²; Yuriy Shlemov³; Olga Suhanova⁴; Svetlana Bannikova³; Denis V. Rumyantsev⁵; Yulia A. Savinova⁵; Nada Strbac⁶; Vesna Grekulovic⁶; Miroslav Sokic⁷

¹Engineering Dobersek GmbH, Mönchengladbach, Germany; ²Engineering Dobersek GmbH, Mönchengladbach, Germany; ³Kazzinc Ltd, Ust- Kamenogorsk, Kazakhstan; ⁴Kazzinc Ltd, Ust- Kamenogorsk, Kazakhstan; ⁵Gipronickel Institute LLC, Saint-Petersburg, Russian Federation; ⁶University of Belgrade, Technical Faculty in Bor, Bor, Serbia; ⁷Institute for Technology of Nuclear and Other Mineral Raw Materials, Belgrade, Serbia

Paper ID: 360

16:45: [NonferrousTuePM311] OS

CLEAN SHORT-FLOW PREPARATION OF ELECTROLYTE FROM VANADIUM SHALE LEACHING SOLUTION BY SOLVENT EXTRACTION

Hong Ru Qu¹; Yimin Zhang¹; Hong Liu¹; Nannan Xue¹

¹Wuhan University of Science and Technology, Wuhan, China

Paper ID: 92

17:05: [NonferrousTuePM312] OS

THERMOCHEMICAL MODELING AND PHASE DIAGRAM ANALYSIS OF CALCIUM- AND ZINC-CONTAINING FLUXES IN SUSTAINABLE PYROMETALLURGICAL PROCESSING OF A SULFIDIC METAL-RICH FINE GRAINED WASTE STREAMS

Md Naziat Hossain¹; Junnile Romero¹; Volker Recksiek¹; Ajay Patil¹; Alexandros Charitos²; Axel Renno¹; Jens Gutzmer¹

¹Helmholtz-Zentrum Dresden-Rossendorf, Freiberg, Germany; ²TU Bergakademie Freiberg, Freiberg, Germany

Paper ID: 492

17:25 POSTERS/EXHIBITION - Ballroom Foyer

SESSION:

NonferrousTuePM4-R5

**Stelter International Symposium (10th
Intl. Symp. on Sustainable Non-ferrous
Smelting & Hydro/Electrochemical
Processing)**

Tue. 22 Oct. 2024 / Room: **Lida**

Session Chairs: Alexandros Charitos; Michael Stelter

17:30: [NonferrousTuePM413] OS

**ECOLOGICAL MOTORING AS A NECESSARY TOOL FOR CONTINUED
RESILIENCY AT ALL SCALES: THE FULCRUM OF A SYSTEMATIC COGNITIVE
SHIFT**

Andrea Hiott¹

¹Universität Heidelber, Heidelberg, Germany

Paper ID: 110

17:50: [NonferrousTuePM414] OS Plenary

**SINGLE-STAGE PYROMETALLURGICAL RECYCLING OF RARE EARTHS FROM
NdFeB MAGNETS BY THE SLAG EXTRACTION METHOD**

Daniel Vogt¹

¹TU Bergakademie Freiberg, Freiberg, Germany

Paper ID: 326

18:10: [NonferrousTuePM415] OS

**NUMERICAL STUDY ON HYDRODYNAMICS AND INTERPHASE REACTIONS FOR
CASSITERITE REDUCTION WITH HYDROGEN**

Albrecht Voigt¹; Sesi Preetam Kota¹; Andreas Richter¹

¹TU Bergakademie Freiberg, Freiberg, Germany

Paper ID: 472

18:30: [NonferrousTuePM416] OS Invited

RECOVERY OF RARE EARTH ELEMENTS FROM DILUTE SECONDARY SOURCE

Elaine Felipe¹; Ana Claudia Ladeira²; Clauson Clauson Souza²; Pedro Augusto Possa
Vicente Sacramento Ferreira²

¹Centro de Desenvolvimento da Tecnologia Nuclear, Contagem, Brazil; ²Centro de
Desenvolvimento da Tecnologia Nuclear, Belo Horizonte, Brazil

Paper ID: 70

20:00 GALA DINNER/AWARDS CEREMONY/SHOW - Marika A Ballroom

08:00 SUMMIT PLENARY - Marika A Ballroom

12:00 LUNCH/POSTERS/EXHIBITION - Red Pepper

SESSION:
SISAMTuePM1-R6

**Schultz International Symposium (8th
Intl. Symp. on Science of Intelligent &
Sustainable Advanced Ferromagnetic
and Superconducting Magnets
(SISAM))**

Tue. 22 Oct. 2024 / Room: **Knossos**

Session Chairs: Mariana Calin; Jean-Marie Dubois

13:00: [SISAMTuePM101] OL Keynote

RECENT PROGRESS IN COMMERCIAL Zr- AND Fe-BASED BULK METALLIC GLASSES - PART 1

Akihisa Inoue¹; Fanli Kong¹; Jianxin Chen²; Xuguang Zhu²; He Men³

¹Josai International University, Togane, Japan; ²Dongguan Yihao Metal Material Technology Co., Ltd., Dongguan, China; ³Ningbo Zhongke B Plus New Materials Technology Co., Ltd., Ningbo, China

Paper ID: 140

13:20: [SISAMTuePM102] OS Keynote

RECENT PROGRESS IN COMMERCIAL ZR- AND Fe-BASED BULK METALLIC GLASSES - PART 2

Akihisa Inoue¹; Fanli Kong¹; Jianxin Chen²; Xuguang Zhu²; He Men³

¹Josai International University, Togane, Japan; ²Dongguan Yihao Metal Material Technology Co., Ltd., Dongguan, China; ³Ningbo Zhongke B Plus New Materials Technology Co., Ltd., Ningbo, China

Paper ID: 482

13:40: [SISAMTuePM103] OS Keynote

TUNING STRUCTURE AND PROPERTIES OF METALLIC GLASSES - PART 1

Jürgen Eckert¹

¹Montanuniversität Leoben, Leoben, Austria

Paper ID: 76

14:00: [SISAMTuePM104] OS Keynote

TUNING STRUCTURE AND PROPERTIES OF METALLIC GLASSES - PART 2

Jürgen Eckert¹

¹Montanuniversität Leoben, Leoben, Austria

Paper ID: 483

14:20 POSTERS/EXHIBITION - Ballroom Foyer

SESSION:
SISAMTuePM2-R6

**Schultz International Symposium (8th
Intl. Symp. on Science of Intelligent &
Sustainable Advanced Ferromagnetic
and Superconducting Magnets
(SISAM))**

Tue. 22 Oct. 2024 / Room: **Knossos**

Session Chairs: Hans Fecht

14:25: [SISAMTuePM205] OS Invited

SUSTAINABLE AND INNOVATIVE PROCESSING OF REE MAGNETS FROM RECYCLED EOL MAGNETS

Spomenka Kobe¹; Benjamin Podmiljsak¹; Tomaž Tomše¹; Zoran Samardzija¹; Janez Kovač¹; Laura Grau²; Damir Huremović³; Alenka Gruden Belavič³; Boris Saje⁴; Oliver Brooks⁵; Alba Berja Torres⁶; Adrian Quesada⁶; Carlo Burkhardt²

¹Jožef Stefan Institute, Ljubljana, Slovenia; ²Pforzheim University, Pforzheim, Germany; ³ZEOS d.o.o., Ljubljana, Slovenia; ⁴Kolektor Magnet Technology GmbH, Essen, Germany; ⁵University of Birmingham, Birmingham, United Kingdom; ⁶Spanish National Research Council, Madrid, Spain

Paper ID: 77

14:45: [SISAMTuePM206] OS Invited

MAGNETIC PROPERTIES AND APPLICATIONS OF GLASS-COATED FERROMAGNETIC MICROWIRES

Valentina Zhukova¹; Paula Corte-Leon¹; Juan Maria Blanco¹; Arcady Zhukov²

¹University of the Basque Country, San Sebastian, Spain; ²Basque Foundation for Science, Bilbao, Spain

Paper ID: 64

15:05: [SISAMTuePM207] OS Invited

MARKET AND APPLICATIONS OF RARE-EARTHS: THE RELEVANCE OF RARE-EARTH PERMANENT MAGNETS

Marcos De Campos¹; Amilton Da Silva Jr²; Kaio St De Souza¹; Ingrid R De Lima¹; Jose Adilson De Castro¹

¹Federal Fluminense University, Volta Redonda, Brazil; ²CEFET - RJ, Valença, Brazil

Paper ID: 287

15:25: [SISAMTuePM208] OS Invited

THREE-DIMENSIONAL SCANNING PROBE MICROSCOPY: LOCALLY MEASURING FORCES, ENERGIES, AND CURRENTS WITH pm/pN/meV/pA RESOLUTION FOR APPLICATIONS IN CATALYSIS AND SINGLE-MOLECULE CHEMISTRY

Udo Schwarz¹

¹Yale University, New Haven, United States

Paper ID: 131

15:45 COFFEE BREAK/POSTERS/EXHIBITION - Ballroom Foyer

SESSION:
SISAMTuePM3-R6

**Schultz International Symposium (8th
Intl. Symp. on Science of Intelligent &
Sustainable Advanced Ferromagnetic
and Superconducting Magnets
(SISAM))**

Tue. 22 Oct. 2024 / Room: **Knossos**

Session Chairs: Spomenka Kobe; Hans Fecht

16:05: [SISAMTuePM309] OS Keynote

SPD SCORES IN SUSTAINABILITY - CURRENT SUCCESSES - PART 1

Michael J. Zehetbauer¹; Jelena Horky²; Laszlo Sajti²; Peter Cengeri¹; Bartosz Sulkowski³; Grzegorz Boczekal³; Erhard Schafner¹; Monika Antoni⁴; Florian Spieckermann⁴; Niklas Plutta⁴; Parthiban Ramasamy⁵; Christian Polak⁶; Branislav Kunca⁷; Ivan Škorvánek⁷; Reinhard Pippan⁵; Jürgen Eckert⁴

¹University of Vienna, Wien, Austria; ²RHP-Technology GmbH, Seibersdorf, Austria;

³AGH University of Cracov, Krakow, Poland; ⁴Montanuniversität Leoben, Leoben, Austria; ⁵Austrian Academy of Sciences, Leoben, Austria; ⁶Vacuumschmelze GmbH & Co KG (VAC), Hanau, Germany; ⁷Slovak Academy of Sciences, Kosice, Slovakia

Paper ID: 393

16:25: [SISAMTuePM310] OS Keynote

SPD SCORES IN SUSTAINABILITY - CURRENT SUCCESSES - PART 2

Michael J. Zehetbauer¹; Jelena Horky²; Laszlo Sajti²; Peter Cengeri¹; Bartosz Sulkowski³; Grzegorz Boczekal³; Erhard Schafner¹; Monika Antoni⁴; Florian Spieckermann⁴; Niklas Plutta⁴; Parthiban Ramasamy⁵; Christian Polak⁶; Branislav Kunca⁷; Ivan Škorvánek⁷; Reinhard Pippan⁵; Jürgen Eckert⁴

¹University of Vienna, Wien, Austria; ²RHP-Technology GmbH, Seibersdorf, Austria;

³AGH University of Cracov, Krakow, Poland; ⁴Montanuniversität Leoben, Leoben, Austria; ⁵Austrian Academy of Sciences, Leoben, Austria; ⁶Vacuumschmelze GmbH & Co KG (VAC), Hanau, Germany; ⁷Slovak Academy of Sciences, Kosice, Slovakia

Paper ID: 484

16:45: [SISAMTuePM311] OS Keynote

ADVANCING MAGNETIC PERFORMANCE AND RECYCLING STRATEGIES IN Nd-Fe-B PERMANENT MAGNETS THROUGH ATOMIC-SCALE CHARACTERIZATION - PART 1

Saso Sturm¹; Spomenka Kobe¹; Matej Komelj¹; Sorour Semsari Parapari¹; Tomaž Tomše¹; Bostjan Markoli²; Carlo Burkhardt³; Kristina Zuzek¹

¹Jožef Stefan Institute, Ljubljana, Slovenia; ²University of Ljubljana, Ljubljana, Slovenia;

³Pforzheim University, Pforzheim, Germany

Paper ID: 100

17:05: [SISAMTuePM312] OS Keynote

ADVANCING MAGNETIC PERFORMANCE AND RECYCLING STRATEGIES IN ND-FE-B PERMANENT MAGNETS THROUGH ATOMIC-SCALE CHARACTERIZATION - PART 2

Saso Sturm¹; **Spomenka Kobe**¹; **Matej Komelj**¹; Sorour Semsari Parapari¹; **Tomaž Tomše**¹; Bostjan Markoli²; **Carlo Burkhardt**³; **Kristina Zuzek**¹

¹Jožef Stefan Institute, Ljubljana, Slovenia; ²University of Ljubljana, Ljubljana, Slovenia;

³Pforzheim University, Pforzheim, Germany

Paper ID: 485

17:25 POSTERS/EXHIBITION - Ballroom Foyer

SESSION: SISAMTuePM4-R6	Schultz International Symposium (8th Intl. Symp. on Science of Intelligent & Sustainable Advanced Ferromagnetic and Superconducting Magnets (SISAM))
Tue. 22 Oct. 2024 / Room: Knossos	
<u>Session Chairs</u> : Carlo Burkhardt	

17:30: [SISAMTuePM413] OS Keynote

UNDERSTANDING NON-TRIVIAL MAGNETIC TEXTURES FROM COMBINED IN-SITU MICROSCOPY TECHNIQUES - PART 1

Bernd Rellinghaus¹

¹Technische Universität Dresden, Dresden, Germany

Paper ID: 188

17:50: [SISAMTuePM414] OS Keynote

UNDERSTANDING NON-TRIVIAL MAGNETIC TEXTURES FROM COMBINED IN-SITU MICROSCOPY TECHNIQUES - PART 2

Bernd Rellinghaus¹

¹Technische Universität Dresden, Dresden, Germany

Paper ID: 486

18:10: [SISAMTuePM415] OS

DETERMINATION OF MAGNETIC ANISOTROPY IN ALNICO, COBALT-NEEDLES AND SmFeN

Marcos De Campos¹; Fernanda A Sampaio Da Silva²; Kaio St De Souza¹; Charle Correia Da Silva³; Ingrid R De Lima¹; **Jose Adilson De Castro**¹

¹Federal Fluminense University, Volta Redonda, Brazil; ²Federal Fluminense University, Volta Redonda, Brazil; ³UFF, Volta Redonda, Brazil

Paper ID: 517

20:00 GALA DINNER/AWARDS CEREMONY/SHOW - Marika A Ballroom

08:00 SUMMIT PLENARY - Marika A Ballroom

12:00 LUNCH/POSTERS/EXHIBITION - Red Pepper

SESSION: SolidStateChemistryTuePM1-R7	Kanatzidis International Symposium (4th Intl. Symp. on Materials/Solid State Chemistry and Nanoscience for Sustainable Development)
Tue. 22 Oct. 2024 / Room: Ariadni A	
<u>Session Chairs:</u> Reshef Tenne; Ram Seshadri	

13:00: [SolidStateChemistryTuePM101] OS Keynote

**ENGINEERING SINGLE-PARTICLE AND COLLECTIVE LIGHT EMISSION FROM
LEAD HALIDE PEROVSKITE NANOCRYSTALS**

Maksym Kovalenko¹

¹ETH Zurich, Zurich, Switzerland

Paper ID: 24

13:20: [SolidStateChemistryTuePM102] OS Plenary

**NANOTUBES OF MISFIT LAYERED COMPOUNDS (MLCs): INSIGHTS INTO THEIR
CHEMICAL, KINETIC AND THERMODYNAMIC STABILITY**

Reshef Tenne¹

¹Weizmann Institute of Science, Rehovot, Israel

Paper ID: 386

13:40: [SolidStateChemistryTuePM103] OS Plenary

DEVELOPING DESIGN RULES FOR FUNCTIONAL MATERIALS

Ram Seshadri¹

¹UC Santa Barbara, Santa Barbara, United States

Paper ID: 346

14:00: [SolidStateChemistryTuePM104] OS Plenary

**THE PHYSICS & CHEMISTRY OF HALIDE PEROVSKITES FOR EFFICIENT &
DURABLE OPTOELECTRONIC DEVICES**

Aditya Mohite¹

¹Rice University, Houston, United States

Paper ID: 344

14:20 POSTERS/EXHIBITION - Ballroom Foyer

SESSION: SolidStateChemistryTuePM2-R7	Kanatzidis International Symposium (4th Intl. Symp. on Materials/Solid State Chemistry and Nanoscience for Sustainable Development)
Tue. 22 Oct. 2024 / Room: Ariadni A	
<u>Session Chairs:</u> Wendy Queen; Christopher Wolverton	

14:25: [SolidStateChemistryTuePM205] OS Plenary
ENGINEERING PEROVSKITE NANOCRYSTALS AS QUANTUM LIGHT SOURCES

Maksym Kovalenko¹

¹ETH Zurich, Zurich, Switzerland

Paper ID: 63

14:45: [SolidStateChemistryTuePM206] OS Keynote
THE POST-SYNTHETIC MODIFICATION OF METAL-ORGANIC FRAMEWORKS FOR IMPROVING PERFORMANCE IN SEPARATIONS

Wendy Queen¹

¹EPFL, Sion, Switzerland

Paper ID: 156

15:05: [SolidStateChemistryTuePM207] OS Invited
MODULATION OF THE TEMPERATURE AND GAS SENSING PROPERTIES OF NEW METAL-ORGANIC FRAMEWORKS BASED ON HEXANUCLEAR RARE EARTH SECONDARY BUILDING UNITS THROUGH SINGLE-CRYSTAL-TO-SINGLE-CRYSTAL TRANSFORMATION REACTIONS

Anastasios Tasiopoulos¹

¹University of Cyprus, Nicosia, Cyprus

Paper ID: 319

15:25: [SolidStateChemistryTuePM208] OS Invited
DATA-DRIVEN DISCOVERY AND DESIGN OF THERMOELECTRIC MATERIALS

Christopher Wolverton¹

¹Northwestern University, Evanston, United States

Paper ID: 402

15:45 COFFEE BREAK/POSTERS/EXHIBITION - Ballroom Foyer

SESSION: SolidStateChemistryTuePM3-R7	Kanatzidis International Symposium (4th Intl. Symp. on Materials/Solid State Chemistry and Nanoscience for Sustainable Development)
Tue. 22 Oct. 2024 / Room: Ariadni A	
Session Chairs: Daniela Marongiu; Francesco Quochi	

16:05: [SolidStateChemistryTuePM309] OS
TAILORING THERMOELECTRIC PERFORMANCE THROUGH SOLUTION PROCESSING

Maria Ibáñez¹

¹Institute of Science and Technology Austria (ISTA), Klosterneuburg, Austria

Paper ID: 323

16:25: [SolidStateChemistryTuePM310] OS
PHOTOPHYSICAL AND THERMAL PROPERTIES OF NEAR-INFRARED EMITTING LANTHANIDE-BASED HALIDE DOUBLE PEROVSKITES

Francesco Quochi¹

¹Università di Cagliari, Carbonia (SU), Italy
Paper ID: 384

16:45: [SolidStateChemistryTuePM311] OS Invited
WHITE LIGHT EMISSION FROM MIXED COMPOSITION LOW DIMENSIONALITY HALIDE PEROVSKITES

Ido Hadar¹

¹The Hebrew University of Jerusalem, Jerusalem, Israel
Paper ID: 315

17:05: [SolidStateChemistryTuePM312] OS Invited
SINGLE CRYSTAL HYBRID-PEROVSKITE THIN FILMS

Daniela Marongiu¹

¹University of Cagliari, Monserrato, Italy
Paper ID: 340

17:25 POSTERS/EXHIBITION - Ballroom Foyer

SESSION: SolidStateChemistryTuePM4-R7	Kanatzidis International Symposium (4th Intl. Symp. on Materials/Solid State Chemistry and Nanoscience for Sustainable Development)
Tue. 22 Oct. 2024 / Room: Ariadni A	
Session Chairs: Omar Farha	

17:30: [SolidStateChemistryTuePM413] OS Invited
GIANT BIREFRINGENCE ACHIEVED VIA HYDROGEN BOND-CLICK REACTION FOR ENHANCED COPLANARITY LONG-RANGE ANION CORRELATIONS MEDIATING DYNAMIC ANHARMONICITY AND CONTRIBUTING TO GLASSY THERMAL CONDUCTIVITY IN WELL-ORDERED K2Ag4Se3

Li-Ming Wu¹

¹Beijing Normal University, Beijing, China
Paper ID: 448

17:50: [SolidStateChemistryTuePM414] OS Invited
SMART AND PROGRAMMABLE SPONGES FROM BASIC SCIENCE TO IMPLEMENTATION AND COMMERCIALIZATION

Omar Farha¹

¹Northwestern University, Evanston, United States
Paper ID: 228

20:00 GALA DINNER/AWARDS CEREMONY/SHOW - Marika A Ballroom

08:00 SUMMIT PLENARY - Marika A Ballroom

12:00 LUNCH/POSTERS/EXHIBITION - Red Pepper

SESSION: AdvancedMaterialsTuePM1-R8	8th Intl Symposium on New & Advanced Materials and Technologies for Energy, Environment, Health and Sustainable Development
Tue. 22 Oct. 2024 / Room: Ariadni B	
<u>Session Chairs:</u> Tetiana Prikhna; Fernand D. S. Marquis	

13:00: [AdvancedMaterialsTuePM101] OS
IMPACT OF TRANSFORMATIVE MATERIALS ON ENERGY, ENVIRONMENT, HEALTH AND SUSTAINABLE DEVELOPMENT

Fernand D. S. Marquis¹

¹United Nano Technologies (UNT) & Integrated Materials Technologies and Systems (IMTS), Seaside, United States

Paper ID: 368

13:20: [AdvancedMaterialsTuePM102] OS

GROWTH FEED ADDITIVES BASED ON POLYVALENT NANODISPERSE IRON OXIDES, OBTAINED BY THE ELECTROEROSION DISPERSION METHOD, FOR FEEDING BROILER CHICKENS

Tetiana Prikhna¹; Mykola Monastyrov²; Olena Prysiashna³; **Fernand D. S. Marquis**⁴; Vasyl Kovalenko⁵; Mykola Novohatskyi⁶; Branko Matovic⁷; Ivana Cvijović-Alagić⁷; Jerzy Madej⁸; Viktor Moshchil¹

¹V. Bakul Institute NASU, Kyiv, Ukraine; ²Open International University of Human Development Ukraine, Kiev, Ukraine; ³Institute for Superhard Materials of the National Academy of Sciences of Ukraine, Kiev, Ukraine; ⁴United Nano Technologies (UNT) & Integrated Materials Technologies and Systems (IMTS), Seaside, United States;

⁵National University of Life and Environmental Science of Ukraine, Kyiv, Ukraine;

⁶Leonid Pogorilyy Ukrainian Scientific Research Institute of Forecasting and Testing of Machinery and Technologies for Agricultural Production of the Ministry of Economy of Ukraine, Kyiv, Ukraine; ⁷Belgrade University, Belgrade, Serbia and Montenegro; ⁸LLC "New Heating Technology", Bytom, Serbia and Montenegro

Paper ID: 398

13:40: [AdvancedMaterialsTuePM103] OS

MECHANICAL RESPONSE OF GRAPHENE REINFORCED ALUMINUM FOAMS AT HIGH STRAIN RATES AND HIGH TEMPERATURE

Sanjeev Khanna¹; Akhouri Sinha¹; Dehi Mondal²; Rupesh Devapati¹

¹University of Missouri, Columbia, United States; ²Advanced Materials & Processes Research Institute, Bhopal, India

Paper ID: 159

14:00: [AdvancedMaterialsTuePM104] OL

**SEROTONIN-MODIFIED GELATIN HYDROGEL CROSSLINKED VIA
PROTocatechualdehyde-Ferric Iron Tricomplex with Antioxidant
and Photothermal Antibacterial Capacities for Infected Wound
Healing**

Yongchao Jiang¹; Jialu Qiao¹; Keyong Tang¹

¹Zhengzhou University, Zhengzhou, China

Paper ID: 32

14:20 POSTERS/EXHIBITION - Ballroom Foyer

SESSION: AdvancedMaterialsTuePM2-R8	8th Intl Symposium on New & Advanced Materials and Technologies for Energy, Environment, Health and Sustainable Development
Tue. 22 Oct. 2024 / Room: Ariadni B	
Session Chairs: Sanjeev Khanna; Andriani Manataki	

14:25: [AdvancedMaterialsTuePM205] OS

**ELECTROCHEMICAL CORROSION AND LONG-TERM OXIDATION RESISTANCE
OF Ti-Al-C, (Ti,Mo)-Al-C AND (Ti,Cr)-Al-C COATINGS DEPOSITED BY HYBRID
MAGNETRON SPUTTERING AND CATHODIC ARC EVAPORATION METHOD**

Tetiana Prikhna¹; Viktoriya Podhurska²; Viktoriia Shtefan³; Orest Ostash⁴; Myroslav Karpets¹; Vladimir Sverdun⁵; Fernand D. S. Marquis⁶; Semyon Ponomaryov⁷; Tetiana Serbeniuk¹; Alexander Kuprin⁸

¹V. Bakul Institute NASU, Kyiv, Ukraine; ²Physico-Mechanical Institute of the National Academy of Sciences of Ukraine, Lviv, Ukraine; ³Leibniz Institute for Solid State and Materials Research Dresden, Dresden, Germany; ⁴Karpenko Physico-Mechanical Institute of the National Academy of Sciences of Ukraine, Lviv, Ukraine; ⁵Institute for Superhard Materials of the National Academy of Sciences of Ukraine, Kiev, Ukraine; ⁶United Nano Technologies (UNT) & Integrated Materials Technologies and Systems (IMTS), Seaside, United States; ⁷Institute of Semiconductor Physics of the National Academy of Sciences of Ukraine (NASU), Kyiv, Ukraine; ⁸National Science Center Kharkov Institute of Physics and Technology, Kharkov, Ukraine

Paper ID: 409

14:45: [AdvancedMaterialsTuePM206] OS

**BREAKING BOUNDARIES: INNOVATION IN WELL INTEGRITY THROUGH
BISMUTH-BASED ALLOYS**

Andriani Manataki¹; Sigbjørn Sangesland²

¹Norwegian University of Science and Technology, Tiller, Norway; ²Norwegian University of Science and Technology, Trondheim, Norway

Paper ID: 52

15:05: [AdvancedMaterialsTuePM207] OS

INFLUENCE OF HPHT ON THE FORMATION OF STRUCTURE AND PROPERTIES OF SUPERHARD COMPOSITE MATERIALS OF BL GROUP OF THE cBN(AI)-SiB₄-WC SYSTEM

Volodymyr Turkevych¹; Ihor Petrusha¹; Denys Stratiychuk¹; **Tetiana Prikhna**²; Yaroslav Romanenko¹

¹V. Bakul Institute for Superhard Materials NAS Ukraine, Kyiv, Ukraine; ²V. Bakul Institute NASU, Kyiv, Ukraine

Paper ID: 407

15:25: [AdvancedMaterialsTuePM208] OL

MXene/nano-chitin/PVA MULTIFUNCTIONAL HYDROGEL WITH BIOMIMETIC ELECTRICAL STIMULATION AND NEAR-INFRARED EFFECT TO PROMOTE WOUND HEALING

Shuhao Jiao¹; **Xuejing Zheng**¹

¹Zhengzhou University, Zhengzhou, China

Paper ID: 112

15:45 COFFEE BREAK/POSTERS/EXHIBITION - Ballroom Foyer

SESSION: AdvancedMaterialsTuePM3-R8	8th Intl Symposium on New & Advanced Materials and Technologies for Energy, Environment, Health and Sustainable Development
Tue. 22 Oct. 2024 / Room: Ariadni B	
Session Chairs: <u>Tetiana Prikhna</u> ; <u>Amr Henni</u>	

16:05: [AdvancedMaterialsTuePM309] OS

SINTERING OF TaB₂ MODIFIED BY SILICIDE UNDER MODERATE AND HIGH PRESSURE

Tetiana Prikhna¹; Pavlo Barvitskiy²; Myroslav Karpets¹; Alexander Borimskiy³; Viktor Moshchil¹; **Fernand D. S. Marquis**⁴; Anastasia Lokatkina⁵

¹V. Bakul Institute NASU, Kyiv, Ukraine; ²Institute for Superhard Materials, Kiev, Ukraine; ³V. Bakul Institute for Superhard Materials of the National Academy of Sciences of Ukraine, Kyiv, Ukraine; ⁴United Nano Technologies (UNT) & Integrated Materials Technologies and Systems (IMTS), Seaside, United States; ⁵Institute for Superhard Materials of the National Academy of Sciences of Ukraine, Kyiv, Ukraine

Paper ID: 420

16:25: [AdvancedMaterialsTuePM310] OS

MOF-177 FUNCTIONALIZATION WITH TWO AMINO ACID-BASED IONIC LIQUIDS FOR EFFICIENT CARBON CAPTURE

Amr Henni¹

¹University of Regina, Regina, Canada

Paper ID: 427

16:45: [AdvancedMaterialsTuePM311] OS

HIGH ENTROPY ALLOYS BY BALL MILLING AND ADIABATIC SHOCK WAVE CONSOLIDATION

Nikoloz Chikhradze¹; **Fernand D. S. Marquis**²; Mikheil Chikhradze³; Davit Tsverava⁴

¹G. Tsulukidze Mining Institute, Tbilisi, Georgia; ²United Nano Technologies (UNT) &

Integrated Materials Technologies and Systems (IMTS), Seaside, United States;

³Georgian Technical University, Tbilisi, Georgia; ⁴LEPL Grigol Tsulukidze Mining

Institute/Georgian Technical University, Tbilisi, Georgia

Paper ID: 270

17:05: [AdvancedMaterialsTuePM312] OS

DESIGNING FUNCTIONAL PEROVSKITE-TYPE OXIDES FOR ELECTROCHEMICAL APPLICATIONS

Konrad Swierczek¹

¹AGH University of Krakow, Kraków, Poland

Paper ID: 105

17:25 POSTERS/EXHIBITION - Ballroom Foyer

SESSION: AdvancedMaterialsTuePM4-R8	8th Intl Symposium on New & Advanced Materials and Technologies for Energy, Environment, Health and Sustainable Development
Tue. 22 Oct. 2024 / Room: Ariadni B	
Session Chairs: TBA	

17:30: [AdvancedMaterialsTuePM413] OS

A BRIEF NOTE ON THE DIFFERENT INTERPRETIIONS OF QUANTUM MECHANICS

Marcos De Campos¹

¹Federal Fluminense University, Volta Redonda, Brazil

Paper ID: 523

17:50: [AdvancedMaterialsTuePM414] OS

FITTING OF MAGNETIC HYSTERESIS CURVES OF BARIUM AND STRONTIUM FERRITES BY THE HYPERBOLIC TANGENT MODEL

Fernanda A Sampaio Da Silva¹; Charle Correia Da Silva²; **Marcos De Campos**³

¹Federal Fluminense University, Volta Redonda, Brazil; ²UFF, Volta Redonda, Brazil;

³Federal Fluminense University, Volta Redonda, Brazil

Paper ID: 522

20:00 GALA DINNER/AWARDS CEREMONY/SHOW - Marika A Ballroom

SESSION:
MagnesiumTuePM4-R8

**4th Intl Symp. on Magnesium Alloys &
Their Applications for Sustainable
Development**

Tue. 22 Oct. 2024 / Room: **Ariadni B**

Session Chairs: Xiaodong Peng

18:10: [MagnesiumTuePM415] OS

**RESEARCH AND DEVELOPMENT OF ULTRALIGHT Mg-Li-Al-X ALLOYS WITH
ENHANCED STRENGTH AND DUCTILITY**

Yan Yang¹

¹Chongqing University, Chongqing, China

Paper ID: 348

18:30: [MagnesiumTuePM416] OS

**RESEARCH ADVANCES OF MAGNESIUM AND MAGNESIUM ALLOYS
WORLDWIDE IN 2023**

Xiaodong Peng¹

¹Chongqing University, Chongqing, China

Paper ID: 347

20:00 GALA DINNER/AWARDS CEREMONY/SHOW - Marika A Ballroom

08:00 SUMMIT PLENARY - Marika A Ballroom

12:00 LUNCH/POSTERS/EXHIBITION - Red Pepper

SESSION:
IronTuePM1-R9

**Leite International Symposium (10th
Intl. Symp. on Advanced Sustainable
Iron & Steel Making)**

Tue. 22 Oct. 2024 / Room: **Ariadni C**

Session Chairs: Dimas Coura; Gabriela Araujo Gois

13:00: [IronTuePM101] OS

STEEL INDUSTRY IN BRAZIL: DEVELOPMENT AND CHALLENGES

Gabriela Araujo Gois¹; Raquel Araújo¹

¹Federal University of Ouro Preto, Ouro Preto, Brazil

Paper ID: 233

13:20: [IronTuePM102] OS

**STRUCTURAL AND MECHANICAL CHARACTERIZATION OF LASER WELDED Ti-
6Al-4V ALLOY**

Gabriela Araujo Gois¹

¹Federal University of Ouro Preto, Ouro Preto, Brazil

Paper ID: 235

13:40: [IronTuePM103] OS

THE USE OF MACAUBA'S BIOMASS IN STEEL INDUSTRY FOR A SUSTAINABLE PROCESS

Gabriela Araujo Gois¹; Paulo Assis¹

¹Federal University of Ouro Preto, Ouro Preto, Brazil

Paper ID: 236

14:00: [IronTuePM104] OS

STUDY OF MICROHARDNESS, CORROSION RESISTANCE AND WEAR PROPERTIES OF SINTERED Ni-Ti ALLOYS

Gabriela Araujo Gois¹; Paulo Assis¹; Orimar Reis²

¹Federal University of Ouro Preto, Ouro Preto, Brazil; ²Instituto Federal de Minas Gerais, Ouro Preto, Brazil

Paper ID: 265

14:20 POSTERS/EXHIBITION - Ballroom Foyer

SESSION: IronTuePM2-R9	Leite International Symposium (10th Intl. Symp. on Advanced Sustainable Iron & Steel Making)
Tue. 22 Oct. 2024 / Room: Ariadni C	
Session Chairs: <u>Davi Santos</u> ; <u>Luiz Leite</u>	

14:25: [IronTuePM205] OS

HOW BRAZIL IS DEVELOPING ITS STEELMAKING SECTOR TO BECOME A MAJOR PLAYER IN GREEN STEEL PRODUCTION

Luiz Leite¹; Paulo Assis¹; Danton Heleno Gameiro¹

¹Federal University of Ouro Preto, Ouro Preto, Brazil

Paper ID: 268

14:45: [IronTuePM206] OS

IMPACTS OF PLANNED OBSOLESCENCE ON SUSTAINABILITY: CASE STUDY ON SMARTPHONES

Nathalia Balzana Anacleto¹; Gabrielle De Castro Martins²; Michelle Dos Santos Marinho³; Adriana De Paula Araujo E Souza⁴

¹Federal Fluminense University, Niterói, Brazil; ²Federal Fluminense University, São Gonçalo, Brazil; ³Hélio Alonso Integrated Colleges, Rio de Janeiro, Brazil; ⁴Setor Privado, São Gonçalo, Brazil

Paper ID: 322

15:05: [IronTuePM207] OS Keynote

4E ANALYSIS OF THE THERMAL POWER PLANT OF A COKE INTEGRATED STEELMAKING PROCESS

Dimas Coura¹; Paulo Assis²; Elisângela Leal²; Luiz Leite²

¹IFMG Campus Ouro, Branco, Conselheiro Lafaiete, Brazil; ²Federal University of Ouro Preto, Ouro Preto, Brazil

Paper ID: 370

© FLOGEN 2024

110 | www.flogen.org/sips2024

15:45 COFFEE BREAK/POSTERS/EXHIBITION - Ballroom Foyer

SESSION: EnergyTuePM3-R9	9th Intl. Symp. on Sustainable Energy Production: Fossil; Renewables; Nuclear; Waste handling, processing, & storage for all energy production technologies; Energy conservation
Tue. 22 Oct. 2024 / Room: Ariadni C	
<u>Session Chairs:</u> TBA	

16:05: [EnergyTuePM309] OS
ENERGY CHOICES AND CONSEQUENCES - 2024 UPDATE
Harold Dodds¹

¹University of Tennessee, Knoxville, United States
Paper ID: 196

16:25: [EnergyTuePM310] OS
**USE OF WIND AND OCEAN CURRENTS IN ANCIENT NAVIGATION: EXAMPLE OF
SUSTAINABLE VOYAGES FOR THE PRESENT TIME**
Marcos De Campos¹

¹Federal Fluminense University, Volta Redonda, Brazil
Paper ID: 288

16:45: [EnergyTuePM311] OL Keynote
REGENERATIVE PRACTICE FOR BUSINESS
Flora Moon¹

¹Expressworks, LLC, Houston, United States
Paper ID: 29

17:05: [EnergyTuePM312] OS Keynote
**ENERGIZING FUEL CELLS WITH AN ELECTRICALLY RECHARGEABLE LIQUID
FUEL**
Liang An¹

¹The Hong Kong Polytechnic University, Hong Kong, China
Paper ID: 10

17:25 POSTERS/EXHIBITION - Ballroom Foyer

SESSION: EnergyTuePM4-R9	9th Intl. Symp. on Sustainable Energy Production: Fossil; Renewables; Nuclear; Waste handling, processing, & storage for all energy production technologies; Energy conservation
Tue. 22 Oct. 2024 / Room: Ariadni C	
<u>Session Chairs:</u> TBA	

17:30: [EnergyTuePM413] OS

EXPERIMENTAL INVESTIGATION OF SOLID OXIDE ELECTROCHEMICAL CELLS OPERATED AS A PART OF POWER-TO-GAS SYSTEM

Stanislaw Jagielski¹; **Jaroslaw Milewski**¹; Jakub Kupecki²

¹Warsaw University of Technology, Warsaw, Poland; ²Institute of Power Engineering - Research Institute, Warsaw, Poland

Paper ID: 392

17:50: [EnergyTuePM414] OS

ENERGY EFFICIENCY OF FRICTION STIR BASED ADDITIVE MANUFACTURING APPROACHES

Simone Amantia¹; Kirill Kalashnikov¹; Davide Campanella¹; Giuseppe Ingarao¹;

Gianluca Buffa¹; Livan Fratin¹; Fabrizio Micari¹

¹University of Palermo, Palermo, Italy

Paper ID: 66

18:10: [EnergyTuePM415] OS

CONTROL APPROACHES TO SECTOR COUPLING OF SUSTAINABLE ENERGY SUPPLY SYSTEMS

Naim Bajcinca¹

¹University of Kaiserslautern-Landau, Kaiserslautern, Germany

Paper ID: 535

20:00 GALA DINNER/AWARDS CEREMONY/SHOW - Marika A Ballroom

08:00 SUMMIT PLENARY - Marika A Ballroom

12:00 LUNCH/POSTERS/EXHIBITION - Red Pepper

SESSION:	2nd International Symposium on Sustainable Biochar
BiocharTuePM1-R10	
Tue. 22 Oct. 2024 / Room: Dazzle D.	
<u>Session Chairs:</u> Harn Wei Kua; Aida Kiani	

13:00: [BiocharTuePM101] OS

NOVEL TYPOLOGY OF ACCELERATED CARBONATION CURING: USING DRY AND PRE-SOAKED BIOCHAR TO TUNE CARBON CAPTURE AND MECHANICAL PROPERTIES OF CEMENTITIOUS MORTAR

Harn Wei Kua¹; Sarah Ming Hwee Tan¹

¹National University of Singapore, Singapore, Singapore

Paper ID: 458

13:20: [BiocharTuePM102] OS

ENHANCING BIOCHAR ADSORPTION CAPACITY FOR METHYLENE BLUE VIA SUSTAINABLE BALL MILLING: A COMPARATIVE STUDY WITH CHEMICAL MODIFICATIONS

Aida Kiani¹; Elena Lamberti¹; Gianluca Viscusi¹; Giuliana Gorrasi¹; Maria Rosaria Acocella¹

¹University of Salerno, Fisciano, Italy

Paper ID: 380

13:40: [BiocharTuePM103] OS

ADSORPTION OF PB (II) FROM AQUEOUS SOLUTION USING MAGNETIC HEMP AND MAPLE MICROWAVE PYROLYSIS BIOCHARS

Patrick Godwin¹; **Muhammad Afzal**¹; Huining Xiao¹

¹University of New Brunswick, Fredericton, Canada

Paper ID: 451

14:00: [BiocharTuePM104] OS

ON FARM BASE, SIMPLE, AND LOW COST BIOCHAR PRODUCTION UNIT FROM AGRICULTURAL WASTES

Helmy El Zanfaly¹; Nadia Mohamed Ahmad²

¹National Reseach Center, Cairo, Egypt; ²National Research Center Medical Biochemistry Dept., Cairo, Egypt

Paper ID: 291

14:20 POSTERS/EXHIBITION - Ballroom Foyer

SESSION:

BiocharTuePM2-R10

Tue. 22 Oct. 2024 / Room: **Dazzle D.**

Session Chairs: Harn Wei Kua; Muhammad Afzal

2nd International Symposium on Sustainable Biochar

14:25: [BiocharTuePM205] OS

BIG BOX BIOCHAR: SCALED-UP, LOW-TECH, IN-WOODS BIOCHAR PRODUCTION

Darren Mcavoy¹

¹Utah State University, Logan, United States

Paper ID: 53

14:45: [BiocharTuePM206] OS

EFFECTS OF BIOCHAR ON THE CHEMICAL PROPERTIES OF SOILS AND THE VOLUME OF WOOD IN A PLANTATION OF ACACIA MANGIUM WILLD IN THE COLOMBIAN ORINOQUIA

Giovanni Reyes-Moreno, Gio¹

¹Universidad Nacional de Colombia, Arauca, Colombia

Paper ID: 229

15:05: [BiocharTuePM207] OS

SYNTHESISED BIOCHAR FOR SUSTAINABLE ENERGY PRODUCTION AND ENVIRONMENTAL MANAGEMENT PRACTICES

S. Sivaramakrishnan¹; Shrinithi Vihahsini²

¹Bharathidasan University, Tamil Nadu, India; ²Bharathidasan University, Tiruchirappalli -620024, Tamil Nadu, India

Paper ID: 294

15:45 COFFEE BREAK/POSTERS/EXHIBITION - Ballroom Foyer

SESSION:

ConstructionTuePM3-R10

Tue. 22 Oct. 2024 / Room: **Dazzle D.**

Session Chairs: Harn Wei Kua; Jing Huang

9th International Symposium on Sustainable Construction Materials

16:05: [ConstructionTuePM309] OS

BIOCHAR AS BUILDING AND ROAD MATERIALS

Harn Wei Kua¹

¹National University of Singapore, Singapore, Singapore

Paper ID: 459

16:25: [ConstructionTuePM310] OS

IMPROVING STRENGTH, SETTING TIME AND WORKABILITY OF LIMESTONE CALCINED CLAY CEMENTITIOUS MORTAR WITH CEMENT-REPLACING BIOCHAR – MAKING “GREEN” BINDER EVEN “GREENER”

Harn Wei Kua¹; Abhimanyu Goel²

¹National University of Singapore, Singapore, Singapore; ²Department of the Built Environment, College of Design & Engineering, NUS, Singapore, Singapore

Paper ID: 456

16:45: [ConstructionTuePM311] OS

Bio-LC3 – EFFECT OF BIOCHAR, RICE HUSK ASH AND COATED SAWDUST ON LC3

Harn Wei Kua¹; Abhimanyu Goel²; Junhao Jeremy Teo²

¹National University of Singapore, Singapore, Singapore; ²Department of the Built Environment, College of Design & Engineering, NUS, Singapore, Singapore

Paper ID: 457

17:05: [ConstructionTuePM312] OS

HIGH SILICON VANADIUM-BEARING SHALE TAILING FOR THE SYNTHESIS OF ONE-PART GEOPOLYMER

Zhijie Guo¹; Tao Liu¹; Yimin Zhang¹; **Jing Huang**¹; Pengcheng Hu¹

¹Wuhan University of Science and Technology, Wuhan, China

Paper ID: 91

17:25 POSTERS/EXHIBITION - Ballroom Foyer

SESSION:
ConstructionTuePM4-R10

**9th International Symposium on
Sustainable Construction Materials**

Tue. 22 Oct. 2024 / Room: **Dazzle D.**

Session Chairs: Harn Wei Kua; Ahsen Maqsoom, Prof.

17:30: [ConstructionTuePM413] OL

UTILIZING GREENHOUSE GAS CO₂ FOR THE PRODUCTION OF LOW-CARBON CONCRETE

Shipeng Zhang¹

¹The Hong Kong Polytechnic University, Hong Kong, China

Paper ID: 471

17:50: [ConstructionTuePM414] OS

BIM THE GAME-CHANGER FOR SAFER CONSTRUCTION: IDENTIFYING RISKS, FIRE WEAK SPOTS AND OPTIMIZING CONSTRUCTABILITY

Usman Ali¹; Ahsen Maqsoom, Prof.²; Bashar UI Asad³; Muhammad Irfan³

¹Department of Management Sciences, COMSATS University Islamabad Wah Campus, Wah Cantt, Pakistan; ²University Mohammed VI Polytechnic, Benguerir, Morocco; ³Civil Engineering Department, COMSATS University Islamabad Wah Campus, Wah Cantt, Pakistan

Paper ID: 214

18:10: [ConstructionTuePM415] OS

PERFORMANCE OF INDUSTRIAL WASTEWATER SLUDGE DERIVED BIOCHAR ON OF SOFT SOIL: AN INVESTIGATION INTO UNCONFINED COMPRESSIVE STRENGTH AND STRENGTH DEVELOPMENT MECHANISM

Muneeb Farooq¹; Mohammad Yousuf Shah²; Khalid Muzamil Gani²

¹National Institute of Technology, Srinagar, India; ²National Institute of Technology Srinagar, Srinagar, India

Paper ID: 334

20:00 GALA DINNER/AWARDS CEREMONY/SHOW - Marika A Ballroom

Wednesday

08:00 SUMMIT PLENARY - Marika A Ballroom

12:00 LUNCH/POSTERS/EXHIBITION - Red Pepper

SESSION:

MedicineWedPM1-R1

**3rd Intl. Symp. on Technological
Innovations in Medicine for Sustainable
Development**

Wed. 23 Oct. 2024 / Room: **Marika A**

Session Chairs: Francis V Fernandes; Krasimir Vasilev

13:00: [MedicineWedPM101] OL

ELECTRODYNAMIC TREATMENT OF INFECTIOUS DISEASES - THE REALM OF BIOPHYSICS

Francis V Fernandes¹

¹Kodaikanal, India

Paper ID: 20

13:20: [MedicineWedPM102] OL

THERAPEUTIC BIOLOGICS AGAINST PATHOGEN BURDEN WHILST PRESERVING AND SUSTAINING BALANCE IN NATURE

Francis V Fernandes¹

¹Kodaikanal, India

Paper ID: 19

13:40: [MedicineWedPM103] OS Keynote

NANOENGINEERED BIOMATERIALS FOR MEDICINE AND BEYOND

Krasimir Vasilev¹

¹Flinders University, Bedford Park, Australia

Paper ID: 16

14:00: [MedicineWedPM104] OS Keynote

BIOMAGING AND PHOTODYNAMIC THERAPY: EGOROV NANO-RESONANCE IN THE TWO-PHOTON ABSORPTION

Vladimir Valentinovich Egorov¹

¹NRC "Kurchatov Institute", Moscow, Russian Federation

Paper ID: 286

14:20 POSTERS/EXHIBITION - Ballroom Foyer

SESSION:
MedicineWedPM2-R1

**3rd Intl. Symp. on Technological
Innovations in Medicine for Sustainable
Development**

Wed. 23 Oct. 2024 / Room: **Marika A**

Session Chairs: Vladimir Valentinovich Egorov

14:25: [MedicineWedPM205] OS

**QUANTUM–CLASSICAL MECHANICS, LOOKING BEYOND THE HORIZON:
CREATION OF ALTERNATIVE FORMS OF LIFE AS A CONDITION FOR
SUSTAINABLE DEVELOPMENT**

Vladimir Valentinovich Egorov¹

¹NRC “Kurchatov Institute”, Moscow, Russian Federation

Paper ID: 104

15:45 COFFEE BREAK/POSTERS/EXHIBITION - Ballroom Foyer

08:00 SUMMIT PLENARY - Marika A Ballroom

12:00 LUNCH/POSTERS/EXHIBITION - Red Pepper

SESSION:
PhysicalWedPM1-R2

**Lipkowski International Symposium
(4th Intl. Symp. on Physical Chemistry
& Its Applications for Sustainable
Development)**

Wed. 23 Oct. 2024 / Room: **Marika B1**

Session Chairs: TBA

13:00: [PhysicalWedPM101] OS

**NOVEL APPROACH OF IMPROVEMENT OF DEFORMATION PROPERTY VIA
RELAXATION CONTROLLING IN BULK METALLIC GLASSES**

Junji Saida¹

¹Tohoku University, Sendai, Japan

Paper ID: 114

13:20: [PhysicalWedPM102] OS

**A PRACTICAL APPROACH TO QUANTITATIVELY ASSESSING EQUILIBRIUM-
CONSTANT ACCURACY FROM A SINGLE BINDING ISOTHERM**

Sergey Krylov¹

¹York University, Toronto, Canada

Paper ID: 415

13:40: [PhysicalWedPM103] OL

COMPLEMENTARY STRUCTURAL AND PHYSICO-CHEMICAL TOOLS FOR IN SITU ANALYSIS OF POROUS MATERIALS

Len Barbour¹

¹University of Stellenbosch, Stellenbosch, South Africa

Paper ID: 48

14:00: [PhysicalWedPM104] OS

LAW OF ACTION OF NANOPARTICLES

Rafia Azmat¹

¹University of Karachi, Karachi, Pakistan

Paper ID: 45

14:20 POSTERS/EXHIBITION - Ballroom Foyer

SESSION:

PhysicalWedPM2-R2

**Lipkowski International Symposium
(4th Intl. Symp. on Physical Chemistry
& Its Applications for Sustainable
Development)**

Wed. 23 Oct. 2024 / Room: **Marika B1**

Session Chairs: Janusz Lipkowski; Sergey Krylov

14:25: [PhysicalWedPM205] OS

A NEW ADVANCED OXIDATION PROCESS TO CONTROL THE DYE-HAZARDOUS WASTEWATER THROUGH HIGH-EFFICIENCY MAGNETON REACTION (H₂O₂/MnO₄) IN AQUEOUS MEDIUM

Ailyan Saleem¹

¹University of Karachi, Karachi, Pakistan

Paper ID: 51

15:45 COFFEE BREAK/POSTERS/EXHIBITION - Ballroom Foyer

08:00 SUMMIT PLENARY - Marika A Ballroom

12:00 LUNCH/POSTERS/EXHIBITION - Red Pepper

SESSION:

GlassWedPM1-R3

**Oktik International Symposium (2nd
Intl. Symp. on Sustainable Glass and
Polymers Processing and Applications)**

Wed. 23 Oct. 2024 / Room: **Marika B2**

Session Chairs: Sener Oktik; Aman Ullah

13:00: [GlassWedPM101] OS Keynote
INDIAN GLASS CRAFTS: A SUSTAINABLE APPROACH

Alok Kumar Kanungo¹

¹IIT Gandhinagar, Gandhinagar, India

Paper ID: 238

13:20: [GlassWedPM102] OS Invited
**ADDITIVE MANUFACTURING OF 3D GLASS STRUCTURES USING THE
UPCYCLING PROCESS OF WASTE GLASS**

Jozef Kraxner¹; Mokhtar Mahmoud¹; Arish Dasan¹; Martin Michalek¹; Monika Michalkova¹; Dušan Galusek¹

¹Alexander Dubček University of Trenčín, Trenčín, Slovakia

Paper ID: 336

13:40: [GlassWedPM103] OS Keynote
TRANSFORMING WASTE INTO MONOMERS AND BIOPOLYMERS

Aman Ullah¹

¹University of Alberta and ZAFa Biorefinery, Edmonton, Canada

Paper ID: 281

14:20 POSTERS/EXHIBITION - Ballroom Foyer

SESSION:
GlassWedPM2-R3

**Oktik International Symposium (2nd
Intl. Symp. on Sustainable Glass and
Polymers Processing and Applications)**

Wed. 23 Oct. 2024 / Room: **Marika B2**

Session Chairs: Peter Simurka; Peter Lichvár

14:25: [GlassWedPM205] OS
MODEL ORDER-REDUCTION OF RECYCLED POLYMER BLOWING
David Ryckelynck¹

¹Mines Paris PSL University, Sophia Antipolis, France

Paper ID: 99

14:45: [GlassWedPM206] OS
**APPLICATION OF FLORY'S STATISTICAL THEORY TO PREDICT SOME
THERMOPHYSICAL PROPERTIES OF THREE COMPONENT DEEP EUTECTIC
MIXTURES AND INVESTIGATION OF THEIR MOLECULAR INTERACTIONS AT
DIFFERENT TEMPERATURES**

Arun Upmanyu¹

¹Chiktara University, Mohali, India

Paper ID: 49

15:05: [GlassWedPM207] OS

VITRIFICATION OF INORGANIC LIQUID RADIOACTIVE WASTE ILW, SO CALLED CHROMPIK III, IN SLOVAKIA. RESEARCH AND INDUSTRIAL PROCESS

Peter Lichvár¹

¹Retired, Trenčín, Slovakia

Paper ID: 444

15:45 COFFEE BREAK/POSTERS/EXHIBITION - Ballroom Foyer

SESSION: MathematicsWedPM3-R3	Rowlands International Symposium (7th Intl. Symp. on Sustainable Mathematics Applications)
Wed. 23 Oct. 2024 / Room: Marika B2	
Session Chairs: Peter Rowlands; James Watson	

16:05: [MathematicsWedPM309] OL

THE IMPORTANCE OF MAKING NOTHING

Mark Johnson¹

¹University of Manchester, Manchester, United Kingdom

Paper ID: 474

16:25: [MathematicsWedPM310] OL

QUANTAL THEORY OF GRAVITY

Tolga Yarman¹; Alexander L. Kholmetskii²; Christian Marchal³; Ozan Yarman⁴

¹Istanbul Okan University, Istanbul, Turkey; ²Belarusian State University, Minsk, Belarus;

³Office National d'Etudes et de Recherches Aéropatiales, Paris, France;

⁴Istanbul University, Istanbul, Turkey

Paper ID: 443

16:45: [MathematicsWedPM311] OS

MYSTERY OF TABLE OF TRIANGULAR NUMBERS IN THE FACTORIZATION OF POSITIVE INTEGERS

Isack E. Kibona¹

¹Mbeya University of Science and Technology, Mbeya, Tanzania

Paper ID: 331

17:05: [MathematicsWedPM312] OS

THE DISSIPATIVE EFFECT OF CAPUTO–TIME–FRACTIONAL DERIVATIVES FOR THE SOLUTIONS OF NONLINEAR WAVE EQUATIONS

Anastassios Bountis¹; **Julia Cantisán Gómez²**; Jesús Cuevas–Maraver³; J. E. Macias–Diaz⁴; P. Kevrekidis⁵

¹University of Patras, Patras, Greece; ²Universidad Rey Juan Carlos, Madrid, Spain;

³Universidad de Sevilla, Sevilla, Spain; ⁴Universidad Autonoma de Aguascalientes,

Aguascalientes, Mexico; ⁵University of Massachusetts, Amherst, United States

Paper ID: 373

17:25 POSTERS/EXHIBITION - Ballroom Foyer

SESSION: MathematicsWedPM4-R3	Rowlands International Symposium (7th Intl. Symp. on Sustainable Mathematics Applications)
Wed. 23 Oct. 2024 / Room: Marika B2	
<u>Session Chairs:</u> Peter Rowlands	

17:30: [MathematicsWedPM413] OL Plenary
SOLUTION OF THE MILLENNIUM PROBLEM CONCERNING THE NAVIER-STOKES EQUATIONS - PART 1

Alexander Ramm¹

¹Kansas State University, Manhattan, United States

Paper ID: 38

17:50: [MathematicsWedPM414] OL Plenary
SOLUTION OF THE MILLENNIUM PROBLEM CONCERNING THE NAVIER-STOKES EQUATIONS - PART 2

Alexander Ramm¹

¹Kansas State University, Manhattan, United States

Paper ID: 529

18:10: [MathematicsWedPM415] OS
COMPUTATIONAL THINKING CONCEPTS APPLICATIONS TO MATHEMATICS USING OFFLINE CODING GAMES

George Marufu Chirume¹

¹Passgrade International Learning Centre, Gweru, Zimbabwe

Paper ID: 416

19:30 FREE EVENING WITH INDIVIDUAL DINNERS AT THE HOTEL

08:00 SUMMIT PLENARY - Marika A Ballroom

12:00 LUNCH/POSTERS/EXHIBITION - Red Pepper

SESSION: PharmaceuticalWedPM1-R4	Leuenberger International Symposium on Pharmaceutical Sciences and Industrial Applications for Sustainable Development
Wed. 23 Oct. 2024 / Room: Minos	
<u>Session Chairs:</u> Hans Leuenberger; Matthias Plitzko	

13:00: [PharmaceuticalWedPM101] OS

SUSTAINABILITY IN MEDICIN AND PHARMACEUTICS - WHAT CAN WE LEARN FROM HISTORY?

Stephan Buchmann¹

¹Idorsia Pharmaceuticals, Allschwil, Switzerland
Paper ID: 42

13:20: [PharmaceuticalWedPM102] OS

SELF-ORGANIZATION-BASED METHODS APPLIED TO BASIC HOMEOPATHY RESEARCH

Maria Olga Kokornaczyk¹; Sandra Würtenberger²; Mario Castelán³; Carlos Acuña³; Daniel Wrzałko¹; Paul Doesburg⁴; Stephan Baumgartner¹

¹University of Bern, Bern, Switzerland; ²Hevert-Arzneimittel GmbH & Co. KG, Nussbaum, Germany; ³Cinvestav, Mexico City, Mexico; ⁴Society for Cancer Research Hiscia Research, Arlesheim, Switzerland
Paper ID: 365

13:40: [PharmaceuticalWedPM103] OS

ASEPTIC SPRAY FREEZE DRYING AS A TOOL FOR SUPPLY CHAIN FLEXIBILISATION

Matthias Plitzko¹

¹Meridion Technologies GmbH, Müllheim, Germany
Paper ID: 341

14:00: [PharmaceuticalWedPM104] OS

CLEAN GOLD MINING A PREREQUISITE IN A SUSTAINABLE WORLD: FAIRTRADE, ECONOMY AND ENVIRONMENTAL

Daniel Ricardo Salazar Montero¹

¹Los Andes University, Neiva, Colombia
Paper ID: 379

14:20 POSTERS/EXHIBITION - Ballroom Foyer

SESSION: LawsWedPM2-R4	Dibra International Symposium (4th Intl Symp on Laws & their Applications for Sustainable Development)
Wed. 23 Oct. 2024 / Room: Minos	
Session Chairs: Florian Kongoli; Agnaldo Andrade	

14:25: [LawsWedPM205] OS

HOW TO ACQUIRE, REGISTER, LEGALIZE AND EXPLORE A MINING ENTERPRISE IN BRAZIL

Wilson Ferreira Santos Jr.¹; Agnaldo Andrade²; Paulo Assis³; Jorge Murta³

¹Independent Auditor and Business Consultant, Belo Horizonte, Brazil; ²Andrade Maggioni Consultoria Empresarial Ltda., Belo Horizonte, Brazil; ³Federal University of Ouro Preto, Ouro Preto, Brazil

Paper ID: 141

© FLOGEN 2024

122 | www.flogen.org/sips2024

14:45: [LawsWedPM206] OS

USE OF MINING WASTE FROM DAMS: SUSTAINABILITY AND TAX GAINS IN BRAZILIAN MINING

Aginaldo Andrade¹; Wilson Ferreira Santos Jr.²; Paulo Assis³; Jorge Murta³

¹Andrade Maggioni Consultoria Empresarial Ltda., Belo Horizonte, Brazil; ²Independent Auditor and Business Consultant, Belo Horizonte, Brazil; ³Federal University of Ouro Preto, Ouro Preto, Brazil

Paper ID: 81

15:05: [LawsWedPM207] OS

MODERN ASPECTS OF ARBITRATION IN THE CURRENT FREE MARKET CONDITIONS OF ALBANIA

Flutura Kola Tafaj¹; Silvana Çinari¹

¹University of Tirana, Tirana, Albania

Paper ID: 396

15:25: [LawsWedPM208] OS

THE IMPORTANCE OF WOMEN IN SCIENCE AND THE IMPACTS OF THEIR ACHIEVEMENTS OVER THE YEARS

Gabriela Araujo Gois¹; Raquel Araújo¹

¹Federal University of Ouro Preto, Ouro Preto, Brazil

Paper ID: 234

15:45 COFFEE BREAK/POSTERS/EXHIBITION - Ballroom Foyer

SESSION: PharmaceuticalWedPM3-R4	Leuenberger International Symposium on Pharmaceutical Sciences and Industrial Applications for Sustainable Development
Wed. 23 Oct. 2024 / Room: Minos	
Session Chairs: Hassan Tarabishi; Albert Winkler	

16:05: [PharmaceuticalWedPM309] OS

AEROGELS – NEW DELIVERY SYSTEMS, MODELING

Natalia Menshutina¹

¹Mendelev University of Chemical Technology of Russia, Moscow, Russian Federation

Paper ID: 408

16:25: [PharmaceuticalWedPM310] OS

WHAT ARE THE EFFECTS OF CONFLICT ON SUPPLY CHAINS AND TRADE WITHIN THE PHARMACEUTICAL INDUSTRY: THE CASE OF SYRIA

Hiba Tarabishi¹

¹University of St. Gallen, Zurich, Switzerland

Paper ID: 352

16:45: [PharmaceuticalWedPM311] OS

ETHICAL HISTORY: A CONTRADICTION IN TERMS?

Albert Winkler¹

¹SAHS Review, Orem, United States

Paper ID: 72

17:25 POSTERS/EXHIBITION - Ballroom Foyer

SESSION: LawsWedPM4-R4	Dibra International Symposium (4th Intl Symp on Laws & their Applications for Sustainable Development)
Wed. 23 Oct. 2024 / Room: Minos	
<u>Session Chairs:</u> Andrea Hartmann-Piraudeau; Flutura Kola Tafaj	

17:30: [LawsWedPM413] OS

THE COMMERCIAL LAW OF THE STATUTES OF THE ALBANIAN MEDIEVAL CITIES AND OF THE CUSTOMARY LAW (KANUN)

Argita Malltezi¹; **Armela Kromiçi**¹

¹University of Tirana, Tirana, Albania

Paper ID: 154

17:50: [LawsWedPM414] OS

CONFLICT IN WORKPLACES: IMPACT ON EMPLOYEES AND ORGANIZATIONS, AND CASE STUDIES ON DIFFERENT ADR SOLUTIONS IMPLEMENTED BY VARIOUS COMPANIES

Andrea Hartmann-Piraudeau¹

¹Consensus Group and University Hohenheim, Stuttgart, Germany

Paper ID: 385

18:10: [LawsWedPM415] OS

SELF-PREFERENCING IN GOOGLE SEARCH: EVALUATING THE DIGITAL MARKET ACT'S REGULATORY IMPACT

Tahsin Kamal Tonima¹

¹City, University of London, London, United Kingdom

Paper ID: 369

19:30 FREE EVENING WITH INDIVIDUAL DINNERS AT THE HOTEL

08:00 SUMMIT PLENARY - Marika A Ballroom

12:00 LUNCH/POSTERS/EXHIBITION - Red Pepper

SESSION:
MineralWedPM1-R5

**Anastassakis International Symposium
(10th Intl. Symp. on Sustainable Mineral
Processing)**

Wed. 23 Oct. 2024 / Room: **Lida**

Session Chairs: Georgios N. Anastassakis; Carlos Petter

13:00: [MineralWedPM101] OS

**MINERAL GENETIC CHARACTERISTICS OF VANADIUM SHALE AND SCIENTIFIC
ELUCIDATION OF THE INTENSIFICATION PROCESS FOR VANADIUM
EXTRACTION**

Qiushi Zheng¹; Yimin Zhang¹; Nannan Xue¹

¹Wuhan University of Science and Technology, Wuhan, China

Paper ID: 127

13:20: [MineralWedPM102] OL Plenary

**ELECTROCHEMICALLY ASSISTED METAL RECOVERED TECHNIQUES
CONNECTED WITH HYDROMETALLURGICAL APPROACHES**

César A C Sequeira¹

¹University of Lisbon, Lisboa, Portugal

Paper ID: 278

13:40: [MineralWedPM103] OL Keynote

**RECOVERY OF RARE EARTH BEARING PLACER HEAVY MINERALS BY
JUDICIOUS COMBINATIONS OF GRAVITY, MAGNETIC AND FLOTATION**

Raghupatruni Bhima Rao¹; **Deependra Singh**²; Bignaraj Mishra³

¹Formerly CSIR IMMT, Bhubaneswar, India; ²IREL (India) Limited, Mumbai, India;

³IREL (India) Limited, Berhampur, India

Paper ID: 68

14:00: [MineralWedPM104] OL Keynote

NON-METALS - MATERIALS OF THE FUTURE

Ljubisa Andric¹; Dragan Radulovic²; Milan Petrov²; Dejan Todorovic²

¹Academy of Engineering Sciences of Serbia, Belgrade, Serbia; ²Institute for
Technology of Nuclear and Other Mineral Raw Materials, Belgrade, Serbia

Paper ID: 254

14:20 POSTERS/EXHIBITION - Ballroom Foyer

SESSION:
MineralWedPM2-R5

**Anastassakis International Symposium
(10th Intl. Symp. on Sustainable Mineral
Processing)**

Wed. 23 Oct. 2024 / Room: **Lida**

Session Chairs: Jorge Gavronski; Carlos Petter

14:25: [MineralWedPM205] OS Invited

MAFMINE ESG - AN INNOVATIVE TOOL FOR INDICATING SUSTAINABILITY IN MINING PROJECTS

Carlos Petter¹; Wesley Ambros¹; Upiragibe Pinheiro¹; Rafael D'Arrigo¹; Fernando Cantini¹; Renato Petter¹; João Oppermann¹

¹Federal University of Rio Grande do Sul, Porto Alegre, Brazil

Paper ID: 246

14:45: [MineralWedPM206] OS

HYDROTHERMAL TREATMENT OF α -SPODUMENE ORE WITH SODIUM HYDROXIDE: A THERMODYNAMIC STUDY

Michail Samouhos, Sr.¹; Illiana Douni¹; Lefkothea Sakellariou¹; Katerina Maliachova¹; Danai Tsakiri¹; Maria Taxiarchou¹; Ioannis Paspaliaris¹

¹National Technical University of Athens, Athens, Greece

Paper ID: 249

15:05: [MineralWedPM207] OS

SUSTAINABLE MINING – DECOMMISSIONING AND MINE CLOSURE PROCESSES
Jorge Gavronski¹

¹Federal University of Rio Grande do Sul, Porto Alegre, Brazil

Paper ID: 8

15:25: [MineralWedPM208] OS

MAFMINE: A QUICK EVALUATION TOOL FOR MINERAL PROCESSING COSTS
Carlos Petter¹; Renato Petter¹; Wesley Ambros¹; Tracy Fernandez¹

¹Federal University of Rio Grande do Sul, Porto Alegre, Brazil

Paper ID: 248

15:45 COFFEE BREAK/POSTERS/EXHIBITION - Ballroom Foyer

SESSION:

MineralWedPM3-R5

**Anastassakis International Symposium
(10th Intl. Symp. on Sustainable Mineral
Processing)**

Wed. 23 Oct. 2024 / Room: **Lida**

Session Chairs: Ori Lahav; Paul Chatzantourian

16:05: [MineralWedPM309] OS

**A NEW APPROACH FOR RB⁺ SEPARATION FROM H₃PO₄ PRODUCTION
RAFFINATE USING PRUSSIAN-BLUE ANALOGUE (PBA) ION-
CHROMATOGRAPHY**

Ori Lahav¹

¹Technion - Israel Institute of Technology, Haifa, Israel

Paper ID: 12

16:25: [MineralWedPM310] OS

NEGOTIATING OUR WAY TOWARDS SUSTAINABILITY: AN EDUCATIONAL BOARD GAME AND ITS CONTEXTUALIZATION INTO THE MINING SECTOR

Rajiv Vaid Basaiawmoit¹; Taru Deva²; Paraskevi Yiouta-Mitra³

¹Aarhus University, Aarhus, Denmark; ²Biosymfonix, Skanderborg, Denmark; ³National Technical University of Athens, Athens, Greece

Paper ID: 350

16:45: [MineralWedPM311] OS

MINERAL DEPOSITS OF AFRICA: OPPORTUNITIES AND PROSPECTS IN MINING
Paul Chatzantourian¹

¹Noravia Gold Mining Ltd., Dar Es Salaam, Tanzania

Paper ID: 361

17:05: [MineralWedPM312] OS Invited

THE INFLUENCE OF DIFFERENT FORMS OF MINERAL PROCESSING ON THE BIO-OXIDATION OF SULPHIDE MINERALS

Andriela Oliveira¹; **Luis Sobral**¹; Carlos Wisniewski²

¹CETEM - Centre for Mineral Technology, Rio de Janeiro, Brazil; ²Euro Metal Brasil, Asa Sul, Brazil

Paper ID: 182

17:25 POSTERS/EXHIBITION - Ballroom Foyer

SESSION: MineralWedPM4-R5	Anastassakis International Symposium (10th Intl. Symp. on Sustainable Mineral Processing)
Wed. 23 Oct. 2024 / Room: Lida	
Session Chairs: Georgios N. Anastassakis; Maciej Tora	

17:30: [MineralWedPM413] OS Keynote

A MODEL FOR MINERAL RESOURCES EVALUATION BASED ON SUSTAINABILITY AND CIRCULAR ECONOMY CRITERIA

Christos Roumpos¹; Nikolaos Paraskevis¹; Aikaterini Servou¹; Francis Pavloudakis²; Philip-Mark Spanidis³

¹Public Power Corporation of Greece, Athens, Greece; ²University of Western Macedonia, Kozani, Greece; ³Project and Risk Management Consultant, Athens, Greece

Paper ID: 259

17:50: [MineralWedPM414] OS

UNDERGROUND ORE-DRESSING AS A RADICAL MEANS OF REDUCING THE COST OF RARE METALS AND A RATIONAL WAY OF PROTECTING THE ENVIRONMENT

Alexander Brodt¹; Ran Maimon²

¹S.G.B.D. Technologies Ltd, Tel Aviv, Israel; ²Metal-Tech, Neot Hovav, Israel

Paper ID: 425

© FLOGEN 2024

127 | www.flogen.org/sips2024

18:10: [MineralWedPM415] OS Invited

RECYCLING OF RENEWABLE ENERGY SOURCES - POLISH EXPERIENCES

Maciej Tora¹; **Barbara Tora**²

¹loop.tech, Gdańsk , Poland; ²AGH University of Krakow, Kraków, Poland

Paper ID: 245

18:30: [MineralWedPM416] OS

APPLICATION OF HIGH-GRADIENT MAGNETIC SEPARATION TO INCREASE RECOVERY OF IRON-CONTAINING COMPONENTS IN ASH AND SLAG WASTE PROCESSING

Nadezhda Nikolaeva¹; Tatyana Aleksandrova¹

¹Empress Catherine II Saint Petersburg Mining University, St. Petersburg, Russian Federation

Paper ID: 256

19:30 FREE EVENING WITH INDIVIDUAL DINNERS AT THE HOTEL

08:00 SUMMIT PLENARY - Marika A Ballroom

12:00 LUNCH/POSTERS/EXHIBITION - Red Pepper

SESSION: SISAMWedPM1-R6	Schultz International Symposium (8th Intl. Symp. on Science of Intelligent & Sustainable Advanced Ferromagnetic and Superconducting Magnets (SISAM))
Wed. 23 Oct. 2024 / Room: Knossos	
<u>Session Chairs:</u> Michael J. Zehetbauer	

13:00: [SISAMWedPM101] OS Keynote

SOME PERSPECTIVES ON METALLIC GLASSES - PART 1

A. Lindsay Greer¹

¹University of Cambridge, Cambridge, United Kingdom

Paper ID: 399

13:20: [SISAMWedPM102] OS Keynote

SOME PERSPECTIVES ON METALLIC GLASSES - PART 2

A. Lindsay Greer¹

¹University of Cambridge, Cambridge, United Kingdom

Paper ID: 487

13:40: [SISAMWedPM103] OS Keynote

ON THE WAY TO NANOCRYSTALLINE MATERIALS BY SOLUTE SEGREGATION - PART 1

Reiner Kirchheim¹

¹Georg-August-University Göttingen, Göttingen, Germany

Paper ID: 57

© FLOGEN 2024

128 | www.flogen.org/sips2024

14:00: [SISAMWedPM104] OS Keynote

ON THE WAY TO NANOCRYSTALLINE MATERIALS BY SOLUTE SEGREGATION - PART 2

Reiner Kirchheim¹

¹Georg-August-University Göttingen, Göttingen, Germany

Paper ID: 488

14:20 POSTERS/EXHIBITION - Ballroom Foyer

SESSION: SISAMWedPM2-R6	Schultz International Symposium (8th Intl. Symp. on Science of Intelligent & Sustainable Advanced Ferromagnetic and Superconducting Magnets (SISAM))
Wed. 23 Oct. 2024 / Room: Knossos	
<u>Session Chairs:</u> Jürgen Eckert	

14:25: [SISAMWedPM205] OS Invited

SUSTAINABLE PROCESSING AND RECYCLING OF PERMANENT MAGNETS FOR ENERGY DEVELOPMENT

Kristina Zuzek¹; **Tomaž Tomše**¹; Mihaela Rebernik¹; Sina Khoshima¹; Amit Mishra¹; Laurence Schieren²; **Carlo Burkhardt**²; Xuan Xu³; Sorour Semsari Parapari¹; **Saso Sturm**¹

¹Jožef Stefan Institute, Ljubljana, Slovenia; ²Pforzheim University, Pforzheim, Germany; ³Inner Mongolia University, Hohhot, China

Paper ID: 79

14:45: [SISAMWedPM206] OS Invited

DEVELOPMENT OF NOVEL MRI-COMPATIBLE METALLIC GLASSES WITH ULTRALOW MAGNETIC SUSCEPTIBILITY FOR BIOMEDICAL APPLICATIONS

Mariana Calin¹; Annett Gebert¹

¹IFW Dresden, Dresden, Germany

Paper ID: 47

15:05: [SISAMWedPM207] OS Invited

ANISOTROPY LIMITATIONS IN ADDITIVE MANUFACTURING WITH MATERIAL EXTRUSION

Benjamin Podmiljsak¹; Petra Jenus¹; Matej Komelj¹; **Kristina Zuzek**¹

¹Jožef Stefan Institute, Ljubljana, Slovenia

Paper ID: 240

15:25: [SISAMWedPM208] OS Invited
QUANTUM-COMPUTING SEARCH FOR SKYRMIONIC ORDERING IN HEISENBERG FERROMAGNETS

Matej Komelj¹

¹Jožef Stefan Institute, Ljubljana, Slovenia
Paper ID: 126

15:45 COFFEE BREAK/POSTERS/EXHIBITION - Ballroom Foyer

SESSION: SISAMWedPM3-R6	Schultz International Symposium (8th Intl. Symp. on Science of Intelligent & Sustainable Advanced Ferromagnetic and Superconducting Magnets (SISAM))
Wed. 23 Oct. 2024 / Room: Knossos	
<u>Session Chairs:</u> Saso Sturm	

16:05: [SISAMWedPM309] OS Invited
RAPID SINTERING STRATEGIES FOR MICROCRYSTALLINE Nd-Fe-B-TYPE PERMANENT MAGNETS - PART 1

Tomaž Tomše¹; Fabian Burkhardt¹; Spomenka Kobe¹; Saso Sturm¹; Kristina Zuzek¹

¹Jožef Stefan Institute, Ljubljana, Slovenia
Paper ID: 74

16:25: [SISAMWedPM310] OS Invited
RAPID SINTERING STRATEGIES FOR MICROCRYSTALLINE Nd-Fe-B-TYPE PERMANENT MAGNETS - PART 2

Tomaž Tomše¹; Fabian Burkhardt¹; Spomenka Kobe¹; Saso Sturm¹; Kristina Zuzek¹

¹Jožef Stefan Institute, Ljubljana, Slovenia
Paper ID: 489

16:45: [SISAMWedPM311] OS Invited
PHYLLOSILICATES AS PLATFORM FOR AIR-STABLE TWO-DIMENSIONAL MAGNETISM

Christian Teichert¹

¹Montanuniversitaet Leoben, Leoben, Austria
Paper ID: 378

17:05: [SISAMWedPM312] OS Invited
THE SURFACE ENERGY OF METALLIC QUASICRYSTALS

Jean-Marie Dubois¹

¹Jožef Stefan Institute, Ljubljana, Slovenia
Paper ID: 89

17:25 POSTERS/EXHIBITION - Ballroom Foyer

SESSION:
SISAMWedPM4-R6

**Schultz International Symposium (8th
Intl. Symp. on Science of Intelligent &
Sustainable Advanced Ferromagnetic
and Superconducting Magnets
(SISAM))**

Wed. 23 Oct. 2024 / Room: **Knossos**

Session Chairs: Saso Sturm

17:30: [SISAMWedPM413] OL Invited

**THE SYNTHESIS OF METASTABLE MATERIALS BY HIGH ENERGY BALL
MILLING – A REVIEW - PART 1**

Carl Koch¹

¹North Carolina State University, Raleigh, United States

Paper ID: 382

17:50: [SISAMWedPM414] OS

**POINTS TO BE CORRECT IN CURRENT DAY MAGNETIC MATERIALS
TEXTBOOKS.**

Marcos De Campos¹

¹Federal Fluminense University, Volta Redonda, Brazil

Paper ID: 520

19:30 FREE EVENING WITH INDIVIDUAL DINNERS AT THE HOTEL

08:00 SUMMIT PLENARY - Marika A Ballroom

12:00 LUNCH/POSTERS/EXHIBITION - Red Pepper

SESSION:
SolidStateChemistryWedPM1-R7

**Kanatzidis International Symposium
(4th Intl. Symp. on Materials/Solid State
Chemistry and Nanoscience for
Sustainable Development)**

Wed. 23 Oct. 2024 / Room: **Ariadni A**

Session Chairs: Michel Armand; Christophe Coperet

13:00: [SolidStateChemistryWedPM101] OS Keynote

**INTERFACES AND NANOALLOYS: FORMATION, DYNAMICS AND RELEVANCE
IN CATALYSIS**

Christophe Coperet¹

¹ETH Zurich, Zurich, Switzerland

Paper ID: 285

13:20: [SolidStateChemistryWedPM102] OS Invited
METAL NANOLAYERS FOR ENERGY HARVESTING AND WATER OXIDATION
Franz Geiger¹

¹Northwestern University, Evanston, United States
Paper ID: 345

13:40: [SolidStateChemistryWedPM103] OS Invited
POLYMER ELECTROLYTES FOR HIGH ENERGY DENSITY BATTERIES
Michel Armand¹

¹CIC energiGUNE, Vitoria-Gasteiz, Spain
Paper ID: 419

14:00: [SolidStateChemistryWedPM104] OS Invited
DISCOVERY OF NEW HYBRID METAL HALIDES
Lingling Mao¹

¹Southern University of Science and Technology, Shenzhen, China
Paper ID: 222

14:20 POSTERS/EXHIBITION - Ballroom Foyer

SESSION:
SolidStateChemistryWedPM2-R7

**Kanatzidis International Symposium
(4th Intl. Symp. on Materials/Solid State
Chemistry and Nanoscience for
Sustainable Development)**

Wed. 23 Oct. 2024 / Room: **Ariadni A**

Session Chairs: Myung-Gil Kim; Yihui He

14:25: [SolidStateChemistryWedPM205] OS Keynote
**THEORETICAL AND APPLIED NANOSCIENCE: QUANTUM–CLASSICAL
MECHANICS, EGOROV NANO-RESONANCE, THE J-BAND OF J-AGGREGATES,
AND BEYOND**

Vladimir Valentinovich Egorov¹

¹NRC “Kurchatov Institute”, Moscow, Russian Federation
Paper ID: 60

14:45: [SolidStateChemistryWedPM206] OS Invited
**ENHANCING GAMMA-RAY SPECTRAL RESOLUTION IN PEROVSKITE
SEMICONDUCTOR DETECTORS WITH UNIPOLAR CONFIGURATION**
Yihui He¹

¹Soochow University, Suzhou, China
Paper ID: 321

15:05: [SolidStateChemistryWedPM207] OS Invited
LOCAL STRUCTURE CONTROL OF CHALCOGEL FOR ENVIRONMENTAL AND ENERGY APPLICATIONS

Myung-Gil Kim¹

¹Sungkyunkwan University, Suwon-si, South Korea
Paper ID: 318

15:25: [SolidStateChemistryWedPM208] OS Keynote
INORGANIC SYNTHESIS PREDICTIONS USING AI
Yousung Jung¹

¹Seoul National University, Seoul, South Korea
Paper ID: 397

15:45 COFFEE BREAK/POSTERS/EXHIBITION - Ballroom Foyer

SESSION: SolidStateChemistryWedPM3-R7	Kanatzidis International Symposium (4th Intl. Symp. on Materials/Solid State Chemistry and Nanoscience for Sustainable Development)
Wed. 23 Oct. 2024 / Room: Ariadni A	
<u>Session Chairs:</u> In Chung; Pantelis Trikalitis	

16:05: [SolidStateChemistryWedPM309] OS Invited
MULTISCALE CRYSTAL LATTICE CHEMISTRY FOR IMPROVING THERMOELECTRIC PERFORMANCE

In Chung¹

¹Seoul National University, Seoul, South Korea
Paper ID: 351

16:25: [SolidStateChemistryWedPM310] OS Invited
ULTRAPOROUS MOFs BASED ON 18-CONNECTED TERNARY, TRIGONAL PRISMATIC SUPERPOLYHEDRA

Pantelis Trikalitis¹

¹University of Crete, Heraklion, Greece
Paper ID: 201

16:45: [SolidStateChemistryWedPM311] OS
SIZE EFFECTS ON THE PHOTOCATALYTIC ACTIVITY OF MESOPOROUS THIOSPINEL NANOSTRUCTURES

Evangelos K. Andreou¹; Ioannis Vamvasakis¹; Andreas Douloumis¹; Georgios Kopidakis¹; **Gerasimos S. Armatas**¹

¹University of Crete, Heraklion, Greece
Paper ID: 495

17:05: [SolidStateChemistryWedPM312] OS Invited
NANOMATERIALS AND THE ENERGY HARVESTING REVOLUTION: A QUANTUM LEAP TOWARDS SUSTAINABLE FUTURE

Marisol Martín-González¹

¹Instituto de Micro y Nanotecnología, CSIC, Tres Cantos, Spain

Paper ID: 9

17:25 POSTERS/EXHIBITION - Ballroom Foyer

SESSION:
SolidStateChemistryWedPM4-R7

**Kanatzidis International Symposium
(4th Intl. Symp. on Materials/Solid State
Chemistry and Nanoscience for
Sustainable Development)**

Wed. 23 Oct. 2024 / Room: **Ariadni A**

Session Chairs: Pantelis Trikalitis; Gerasimos S. Armatas

17:30: [SolidStateChemistryWedPM413] OS
TWISTING PHOTONS WITH CHIRAL METAL-HALIDE SEMICONDUCTORS
Haipeng Lu¹

¹Hong Kong University of Science and Technology, Tai Po Tsai, Hong Kong

Paper ID: 307

17:50: [SolidStateChemistryWedPM414] OS
“PbCrO₃”: THE MOST COMPLEX “SIMPLE” PEROVSKITE. A REVISION OF A SOLID-STATE CHEMISTRY CASE STUDY.

Miguel A. Alario Franco¹; Ángel M. Arévalo-Lopez²

¹Complutense U. of Madrid, Madrid, Spain; ²Université de Lille, Lille, France

Paper ID: 375

19:30 FREE EVENING WITH INDIVIDUAL DINNERS AT THE HOTEL

08:00 SUMMIT PLENARY - Marika A Ballroom

12:00 LUNCH/POSTERS/EXHIBITION - Red Pepper

SESSION:
AdvancedMaterialsWedPM1-R8

**8th Intl Symposium on New &
Advanced Materials and Technologies
for Energy, Environment, Health and
Sustainable Development**

Wed. 23 Oct. 2024 / Room: **Ariadni B**

Session Chairs: Fernand D. S. Marquis; Brajadulal Chattopadhyay

13:00: [AdvancedMaterialsWedPM101] OS

STRUCTURE AND ELECTRODYNAMIC CHARACTERISTICS OF AlN-C-Mo COMPOSITE MATERIALS OBTAINED BY THE DIFFERENT SINTERING METHODS

Tetiana Serbeniuk¹; **Tetiana Prikhna**¹; Volodymyr Zagorodnii²; Volodymyr Sverdun¹; Myroslav Karpets¹; Semyon Ponomaryov³; **Fernand D. S. Marquis**⁴

¹V. Bakul Institute NASU, Kyiv, Ukraine; ²Taras Shevchenko National University of Kyiv, Kyiv, Ukraine; ³Institute of Semiconductor Physics of the National Academy of Sciences of Ukraine (NASU), Kyiv, Ukraine; ⁴United Nano Technologies (UNT) & Integrated Materials Technologies and Systems (IMTS), Seaside, United States
Paper ID: 390

13:20: [AdvancedMaterialsWedPM102] OS

STUDY ON IMPROVING THE FATIGUE DESIGN OF MECHANICAL SYSTEMS SUCH AS REFRIGERATOR BASED ON QUANTUM-TRANSFERRED FAILURE MODEL AND SAMPLE SIZE

Seongwoo Woo¹

¹Technical and Vocational Training Institute (TVTI), Addis Ababa, Ethiopia
Paper ID: 59

13:40: [AdvancedMaterialsWedPM103] OS

BIO-CONSTRUCTION MATERIALS: A MICROBIAL APPROACH FOR THE JOURNEY FROM “GREEN HOUSE” TO “GREEN HOME”

Brajadulal Chattopadhyay¹; Avishek Chatterjee¹; Rahamatulla Molla¹; Ajay Mondal²

¹Jadavpur University, Kolkata, India; ²Research Scholar, Kolkata, India
Paper ID: 61

14:00: [AdvancedMaterialsWedPM104] OS

MICRO-MORPHOLOGY ENHANCEMENT BY ELECTROSPINNING FOR THE IMPROVED MULTICOMPONENT PEROVSKITE-TYPE SOC OXYGEN ELECTRODES

Keyun Li¹; **Konrad Swierczek**¹

¹AGH University of Krakow, Kraków, Poland
Paper ID: 98

14:20 POSTERS/EXHIBITION - Ballroom Foyer

SESSION: AdvancedMaterialsWedPM2-R8	8th Intl Symposium on New & Advanced Materials and Technologies for Energy, Environment, Health and Sustainable Development
Wed. 23 Oct. 2024 / Room: Ariadni B	
<u>Session Chairs:</u> Tetiana Prikhna; Fernand D. S. Marquis	

14:25: [AdvancedMaterialsWedPM205] OS

POST-OXYGENATION UNDER HIGH PRESSURE OF SUPERCONDUCTING COATED CONDUCTORS BASED ON EuBCO AND GdBCO

Tetiana Prikhna¹; Aiswarya Kethamkuzhi²; Roxana Vlad²; Robert Kluge³; Myroslav Karpets¹; Semyon Ponomaryov⁴; Viktor Moshchil¹; Fernand D. S. Marquis⁵; Bernd Büchner³; Sabine Wurmehl³; Joffre Gutierrez²; Anton Shaternik¹; Xavier Obradors²; Teresa Puig²

¹V. Bakul Institute NASU, Kyiv, Ukraine; ²Institut de Ciencia de Materials de Barcelona, CSIC, Bellaterra, Spain; ³Leibniz-Institut für Festkörper- und Werkstoffforschung Dresden e. V., Dresden, Germany; ⁴Institute of Semiconductor Physics of the National Academy of Sciences of Ukraine (NASU), Kyiv, Ukraine; ⁵United Nano Technologies (UNT) & Integrated Materials Technologies and Systems (IMTS), Seaside, United States

Paper ID: 405

14:45: [AdvancedMaterialsWedPM206] OS Keynote

NEXT-GENERATION LITHIUM AND SODIUM ION BATTERY MATERIALS GROWN BY THE FLUX CRYSTAL GROWTH METHOD

Katsuya Teshima¹

¹Shinshu University, Nagano, Japan

Paper ID: 36

15:05: [AdvancedMaterialsWedPM207] OS

DEVELOPMENT OF HIGH-ENERGY DENSITY LI-ION CELLS: NI-RICH LAYERED OXIDES, LI-RICH CATHODE MATERIALS, AND HIGH-ENTROPY CONVERSION-ALLOYING ANODES

Boyang Fu¹; Andrzej Kulka²; Maciej Możdziej³; Konrad Swierczek⁴

¹AGH University of Krakow, Krakow, Poland; ²AGH University of Science and Technology, Cracow, Poland; ³AGH University of Science and Technology, Kraków, Poland; ⁴AGH University of Krakow, Kraków, Poland

Paper ID: 102

15:25: [AdvancedMaterialsWedPM208] OS

EXHALED ACETONE GAS SENSORS BASED ON Fe-DOPED SnO₂

Amanzhol Turlybekuly¹; Ernar Shynybekov¹

¹Nazarbayev University, Astana, Kazakhstan

Paper ID: 267

15:45 COFFEE BREAK/POSTERS/EXHIBITION - Ballroom Foyer

SESSION: AdvancedMaterialsWedPM3-R8	8th Intl Symposium on New & Advanced Materials and Technologies for Energy, Environment, Health and Sustainable Development
Wed. 23 Oct. 2024 / Room: Ariadni B	
<u>Session Chairs:</u> Sanjeev Khanna; Ali Sajid	

16:05: [AdvancedMaterialsWedPM309] OS

NANOMATERIALS AND NANOTECHNOLOGIES FOR MARINE AND MEMBRANE ANTIFOULING APPLICATIONS

Anandakumar Srinivasan¹

¹Anna University Chennai India, Chennai/Tamil nadu, India

Paper ID: 282

16:25: [AdvancedMaterialsWedPM310] OS

RECENT TRENDS AND SOURCES OF ARSENIC TOXICITY: A REVIEW OF STATE-OF-THE-ART NANO-REMEDATION STRATEGIES

Ali Sajid¹

¹Nanjing Normal University, Nanjing, China

Paper ID: 387

16:45: [AdvancedMaterialsWedPM311] OS

CARBON NANOMATERIAL BIOSENSOR FOR THE MEASUREMENT OF NEUROTRANSMITTERS AND NEUROPEPTIDES

Alexander Zestos¹

¹American University, Washington, United States

Paper ID: 432

17:25 POSTERS/EXHIBITION - Ballroom Foyer

SESSION:
ManufacturingWedPM4-R8

**5th Intl. Symp. on Advanced
Manufacturing for Sustainable
Development**

Wed. 23 Oct. 2024 / Room: **Ariadni B**

Session Chairs: Nathalia Balzana Anacleto

17:30: [ManufacturingWedPM413] OS

DYNAMIC MODELING AND CYCLE CONTROL OF BALL-MILL PROCESSED PARTICULATES

Charalabos Doumanidis¹

¹Wigwe University, Natick, United States

Paper ID: 50

17:50: [ManufacturingWedPM414] OS

IMPACTS OF PLANNED OBSOLESCENCE ON SUSTAINABILITY: CASE STUDY ON SMARTPHONES

Nathalia Balzana Anacleto¹; Gabrielle De Castro Martins²; Michelle Dos Santos Marinho³; Adriana De Paula Araujo E Souza⁴

¹Federal Fluminense University, Niterói, Brazil; ²Federal Fluminense University, São Gonçalo, Brazil; ³Hélio Alonso Integrated Colleges, Rio de Janeiro, Brazil; ⁴Setor Privado, São Gonçalo, Brazil

Paper ID: 138

19:30 FREE EVENING WITH INDIVIDUAL DINNERS AT THE HOTEL

08:00 SUMMIT PLENARY - Marika A Ballroom

12:00 LUNCH/POSTERS/EXHIBITION - Red Pepper

SESSION: EnergyWedPM1-R9	9th Intl. Symp. on Sustainable Energy Production: Fossil; Renewables; Nuclear; Waste handling, processing, & storage for all energy production technologies; Energy conservation
Wed. 23 Oct. 2024 / Room: Ariadni C	
<u>Session Chairs:</u> Harold Dodds; Flora Moon	

13:00: [EnergyWedPM101] OS

**USHERING RENEWABLE ENERGY TRANSITION THROUGH DATA CENTER
DECARBONIZATION**

Manisha Rane-Fondacaro¹

¹Soul-Led Solutions LLC, Albany, United States

Paper ID: 301

13:20: [EnergyWedPM102] OS

ROLE OF STIRLING MACHINES IN SUSTAINABLE HOMES

Marcos De Campos¹

¹Federal Fluminense University, Volta Redonda, Brazil

Paper ID: 290

13:40: [EnergyWedPM103] OL Invited

NUCLEAR FUSION FOR STARS AND SUSTAINABILITY

Ekadashi Barakoti¹; **Chary Rangacharyulu**¹

¹University of Saskatchewan, Saskatoon, Canada

Paper ID: 208

14:00: [EnergyWedPM104] OS Keynote

**ELECTRODE PROCESSING TOWARD MAXIMIZING ENERGY CONTENT IN A
LITHIUM-ION BATTERY**

Vincent Battaglia¹

¹Lawrence Berkeley National Laboratory, Berkeley, United States

Paper ID: 461

14:20 POSTERS/EXHIBITION - Ballroom Foyer

SESSION:
BatteryWedPM2-R9

**9th Intl. Symp. on Sustainable
Secondary Battery Manufacturing &
Recycling**

Wed. 23 Oct. 2024 / Room: **Ariadni C**

Session Chairs: Shailesh Upreti; Fail Sultanov; Mukhammed Kenzhebek

14:25: [BatteryWedPM205] OS

DEVELOPMENT BIOMASS BIOMASS-DERIVED GRAPHENE/MXene COMPOSITE FOR INTENSIFICATION OF LITHIUM-SULFUR BATTERIES

Fail Sultanov¹; **Mukhammed Kenzhebek**¹; Almagul Mentbayeva¹; Zhumabay Bakenov¹

¹Nazarbayev University, Astana, Kazakhstan

Paper ID: 292

14:45: [BatteryWedPM206] OS Keynote

DIGITAL DNA: SYNCHRONIZING MOLECULES TO MACHINES TO BUILD SMART GIGAFACORIES

Shailesh Upreti¹

¹C4V, Vestal, United States

Paper ID: 175

15:05: [BatteryWedPM207] OS

ELECTRONIC APPROACH IN THE DEVELOPMENT OF HIGH VOLTAGE CATHODE MATERIALS FOR Na-ION BATTERIES

Janina Molenda¹

¹AGH University of Krakow, Kraków, Poland

Paper ID: 71

15:25: [BatteryWedPM208] OS

CLOSING THE LOOP: A COMPREHENSIVE REVIEW OF LIB RECYCLING METHODS

Samira Sokhanvaran¹; Maya Joy Lindstrom-Parkins¹

¹Hatch Ltd., Mississauga, Canada

Paper ID: 230

15:45 COFFEE BREAK/POSTERS/EXHIBITION - Ballroom Foyer

SESSION:
EnergyWedPM3-R9

**9th Intl. Symp. on Sustainable Energy
Production: Fossil; Renewables;
Nuclear; Waste handling, processing, &
storage for all energy production
technologies; Energy conservation**

Wed. 23 Oct. 2024 / Room: **Ariadni C**

Session Chairs: Harold Dodds

16:05: [EnergyWedPM309] OS

DECARBOXYLATIVE - DIMERIZATION OF LEVULINIC ACID TO C6 AND C9 FUEL PRECURSORS USING LITHIUM NICKEL MANGANESE COBALT OXIDE ON CARBON CATALYST

Ananda Amarasekara¹

¹Prairie View A&M University, Prairie View, United States

Paper ID: 62

17:25 POSTERS/EXHIBITION - Ballroom Foyer

08:00 SUMMIT PLENARY - Marika A Ballroom

12:00 LUNCH/POSTERS/EXHIBITION - Red Pepper

SESSION: CarbonWedPM1-R10	7th Intl. Symp. on Sustainable Carbon and Biocoke and their Industrial Application
Wed. 23 Oct. 2024 / Room: Dazzle D.	
Session Chairs: Gustav Hanke; Naldo J.A. Meyer	

13:00: [CarbonWedPM101] OS Keynote

FUTURE OPTIONS FOR A CO₂-MINIMIZED METAL PRODUCTION

Juergen Antrekowitsch¹

¹University of Leoben, Leoben, Austria

Paper ID: 276

13:20: [CarbonWedPM102] OS Keynote

IMPLEMENTATION OF BIOCOKE IN METALLURGICAL PROCESSES - PRETREATMENT AND OPTIMIZATION

Gustav Hanke¹

¹Montanuniversität Leoben, Leoben, Austria

Paper ID: 271

13:40: [CarbonWedPM103] OS

DIRECT CO-LIQUEFACTION OF SOUTH AFRICAN VINTRINITE AND INERTINITE-RICH COAL FINES WITH POLYPROPYLENE AND LOW-DENSITY POLYETHYLENE

Naldo J.A. Meyer¹; Christien Strydom¹; John Bunt¹; Romanus Uwaoma²; Ettiene Wiese¹

¹North-West University, Potchefstroom, South Africa; ²Mintek, Johannesburg, South Africa

Paper ID: 223

14:00: [CarbonWedPM104] OS

DIRECT LIQUEFACTION OF POLYPROPYLENE AND LOW-DENSITY POLYETHYLENE USING TETRALIN AND BENZENE AS SOLVENTS

Naldo J.A. Meyer¹; Christien Strydom¹; John Bunt¹; Romanus Uwaoma²; Ettiene Wiese¹

¹North-West University, Potchefstroom, South Africa; ²Mintek, Johannesburg, South Africa

Paper ID: 224

14:20 POSTERS/EXHIBITION - Ballroom Foyer

SESSION: CarbonWedPM2-R10	7th Intl. Symp. on Sustainable Carbon and Biocoal and their Industrial Application
Wed. 23 Oct. 2024 / Room: Dazzle D.	
<u>Session Chairs:</u> Juergen Antrekowitsch	

14:25: [CarbonWedPM205] OS

ROLE OF CARBON NONMATERIAL IN H2 SENSOR TECHNOLOGY: STEP TOWARDS HUMAN SAFETY

Shivani Dhall¹

¹DAV College, Jalandhar, India

Paper ID: 176

15:45 COFFEE BREAK/POSTERS/EXHIBITION - Ballroom Foyer

SESSION: EnvironmentalWedPM3-R10	11th Intl. Symp. on Environmental, Policy, Management, Health, Economic, Financial, Social Issues Related to Technology & Scientific Innovation
Wed. 23 Oct. 2024 / Room: Dazzle D.	
<u>Session Chairs:</u> TBA	

16:05: [EnvironmentalWedPM309] OS

DATASET REFLECTING ROADMAP AND SUSTAINABILITY IN STEM CAREERS OF SECONDARY SCHOOL GRADUATES IN MBEYA CITY OF TANZANIA

Isack E. Kibona¹

¹Mbeya University of Science and Technology, Mbeya, Tanzania

Paper ID: 330

16:25: [EnvironmentalWedPM310] OS

**FOOD SECURITY INTERVENTION MECHANISMS IN THE DROUGHT-PRONE
RURAL AREAS OF TIGRAY**

Tewelde Gebre¹

¹Mekelle University, Mekelle, Ethiopia

Paper ID: 202

17:25 POSTERS/EXHIBITION - Ballroom Foyer

Posters

SESSION: MineralPoster	Anastassakis International Symposium (10th Intl. Symp. on Sustainable Mineral Processing)
Room: Foyer	
Poster Session	

[MineralPoster1] **REDUCTION PRETREATMENT TO PREVENT Fe³⁺ PRECIPITATION BLOCKAGE IN THE RECOVERY OF SULFURIC ACID FROM VANADIUM ACID LEACHING SOLUTION BY ELECTRODIALYSIS**

Yuting Wang¹; Yimin Zhang¹; Qiushi Zheng¹; Nannan Xue¹

¹Wuhan University of Science and Technology, Wuhan, China

Paper ID: 90

[MineralPoster2] **SHORTENED PROCEDURE FOR DETERMINING THE BOND WORK INDEX FOR FINER SAMPLES**

Vladimir Nikolić¹; Milan Trumić¹; Maja S. Trumić¹

¹University of Belgrade, Bor, Serbia

Paper ID: 157

[MineralPoster3] **TESTING IN CHROMIUM ENRICHMENT PLANTS IN ALBANIA**

Genc Demi¹; Habib Basholli²

¹University of Tirana, Tirana, Albania; ²Independent Commission for Mines and Minerals, Prishtine, Kosovo

Paper ID: 179

[MineralPoster4] **LEACHING OF FLOTATION TAILINGS WITH A SOLUTION OF SULFURIC ACID AND IONIC LIQUID IN THE PRESENCE OF HYDROGEN PEROXIDE**

Dragana Marilović¹; Grozdanka Bogdanović¹

¹University of Belgrade, Bor, Serbia

Paper ID: 244

[MineralPoster5] **INCORPORATING CIRCULAR ECONOMY BUSINESS MODEL CANVAS AND SOCIAL CONSIDERATIONS: A FRAMEWORK FOR THE ELECTRICAL AND ELECTRONIC INDUSTRY**

Athanasia Milkidou¹; **Georgios N. Anastassakis**¹

¹National Technical University of Athens, Athens, Greece

Paper ID: 253

[MineralPoster6] **VANADIUM-BEARING SHALE RESOURCES UTILIZATION IN WHOLE INDUSTRIAL CHAIN PERSPECTIVE**

Yimin Zhang¹; Nannan Xue¹; Jing Huang¹; Qiushi Zheng¹; Hong Liu¹

¹Wuhan University of Science and Technology, Wuhan, China

Paper ID: 304

[MineralPoster7] **INTRODUCTION FOR ANASTASSAKIS SYMPOSIUM**

Georgios Papadimitriou¹

¹National Technical University of Athens, Athens, Greece

Paper ID: 504

SESSION: LawsPoster	Dibra International Symposium (4th Intl Symp on Laws & their Applications for Sustainable Development)
Room: Foyer	
Poster Session	

[LawsPoster1] **THE APPLICATION AND PROSPECTS OF LITIGATION FINANCE IN CHINA**

Andy Han¹

¹Allbrightlaw Offices, Qingdao, China

Paper ID: 389

[LawsPoster2] **LEGAL ASPECTS OF THE RENEWABLE POWER PURCHASE AGREEMENT**

Amarildo Bregasi¹

¹Frost & Fire Consulting, Tirana, Albania

Paper ID: 403

SESSION: SolidStateChemistryPoster	Kanatzidis International Symposium (4th Intl. Symp. on Materials/Solid State Chemistry and Nanoscience for Sustainable Development)
Room: Foyer	
Poster Session	

[SolidStateChemistryPoster1] **THE INVESTIGATION OF INTERACTION OF PC15 WITH CHLORIDES OF SOME METALS**

Emma Vovkotrub¹; Alexander Salyulev¹

¹Institute of High Temperature Electrochemistry, Ekaterinburg, Russian Federation

Paper ID: 532

SESSION: IronPoster	Leite International Symposium (10th Intl. Symp. on Advanced Sustainable Iron & Steel Making)
Room: Foyer	
Poster Session	

[IronPoster1] **SINGLE STROKE DRI PELLITIZATION TECHNOLOGIES**

Inimella Venkata Subba Rao¹

¹Single Stroke DRI Pellitization Technology, Bangalore, India

Paper ID: 151

[IronPoster2] **PHENOL CATALYTIC OXIDATION OVER IRON AND COOPER-EXCHANGED PILLARED BENTONITE**

Khalida Chellal¹

¹University of Science and Technology, Algiers, Algeria

Paper ID: 213

[IronPoster3] **ULTRASONIC WAVES FOR THE CONTROL OF LIMNOPERNA FORTUNEI – THE GOLDEN MUSSEL**

Gislaine Soares Araujo¹; Braian Soares Leite Araujo¹; Ana Cristina De Carvalho¹; Afonso Pelli²

¹Federal University of Ouro Preto, Mariana, Brazil; ²Federal University of Triangulo Mineiro, Uberaba, Brazil

Paper ID: 261

[IronPoster4] **HOW STEELMAKING IS COMING TO ELIMINATE ITS CARBON DIOXIDE EMISSIONS**

Luiz Leite¹; Paulo Assis¹; Danton Heleno Gameiro¹

¹Federal University of Ouro Preto, Ouro Preto, Brazil

Paper ID: 269

[IronPoster5] **THE TECHNOLOGY OF THERMO-TEMPORAL TREATMENT OF IRON-BASED MELTS**

Vladimir Tsepelev¹; Kaiming Wu²; Daniil Shvetcov³; Nadezda Konovalova¹

¹Boris Yeltsin Ural Federal University, Ekaterinburg, Russian Federation; ²Wuhan University of Science and Technology, Wuhan, China; ³Ural Federal University, Yekaterinburg, Russian Federation

Paper ID: 400

[IronPoster6] **ANALYSIS OF QUARTZITE AS A REDUCING AGENT FOR CHARCOAL MADE FROM BAMBOO, RICE, CORN, AND SOYBEAN RESIDUES**

Luiz Leite¹; Braian Soares Leite Araujo²; Dimas Coura³; Paulo Assis¹

¹Federal University of Ouro Preto, Ouro Preto, Brazil; ²Federal University of Ouro Preto, Mariana, Brazil; ³IFMG Campus Ouro, Branco, Conselheiro Lafaiete, Brazil

Paper ID: 455

SESSION: PhysicalPoster

**Lipkowski International Symposium
(4th Intl. Symp. on Physical Chemistry
& Its Applications for Sustainable
Development)**

Room: Foyer

Poster Session

[PhysicalPoster1] **ZINC–NICKEL COATINGS ON SUBSTRATE IN PRESENCE OF CADMIUM IN ACID MEDIUM**

Yassine Addi¹

¹ENPEI-USTHB, Algiers, Algeria

Paper ID: 178

[PhysicalPoster2] **PROCESSING OF Ni-Ti ALLOYS THROUGH POWDER METALLURGY AND ITS MECHANICAL AND MICROSTRUCTURAL BEHAVIOR**

Vinicius Camilo Caitano¹

¹Fimat-Ouro Preto, Ouro Branco, Brazil

Paper ID: 306

[PhysicalPoster3] **EFFECT OF AUSTENITIZING CONDITION ON THE CARBIDE DISSOLUTION AND MARTENSITIC TRANSFORMATION TEMPERATURE IN A STAINLESS STEEL AISI 420A (SUS420J2)**

Tibério Graco Duarte¹

¹Federal University of Ouro Preto, Ouro Preto, Brazil

Paper ID: 438

[PhysicalPoster4] **ZnO BASED CO GAS SENSOR: A DFT STUDY**

Gani Yergaliuly¹; **Abylay Tangirbergen**²; Baktiyar Soltabayev¹

¹Nazarbayev University, Astana, Kazakhstan; ²Nazarbayev University, National Laboratory Astana, Astana, Kazakhstan

Paper ID: 442

SESSION: CompositePoster

Monteiro International Symposium on Composite, Ceramic & Nano Materials Processing, Characterization & Applications (10th Intl. Symp.)

Room: Foyer

Poster Session

[CompositePoster1] **THERMODYNAMIC ANALYSIS OF THE Sc-Hf-B-O-C SYSTEM FOR OBTAINING A MIXTURE OF Hf AND Sc BORIDE POWDERS**

Ketevan Ukleba¹

¹Ferdinand Tavadze Institute of Metallurgy and Materials Science, Tbilisi, Georgia

Paper ID: 17

[CompositePoster2] **DEVELOPMENT OF STITCHED THREE-DIMENSIONAL COMPOSITES FOR BALLISTIC ARMOR APPLICATIONS**

Lucas Reis¹; Sarah De Melo¹; **Sergio Monteiro**¹

¹Military Institute of Engineering, Rio de Janeiro, Brazil

Paper ID: 163

[CompositePoster3] **INFLUENCE OF FABRICATION TECHNIQUES ON THE BALLISTIC PERFORMANCE OF ARAMID LAMINATED COMPOSITES**

Sarah De Melo¹; Lucas Reis¹; Sergio Monteiro¹

¹Military Institute of Engineering, Rio de Janeiro, Brazil

Paper ID: 169

[CompositePoster4] **EFFECT OF MATRIX-FIBER INTERFACE OPTIMIZATION ON THE MECHANICAL STRENGTH OF FIBER-REINFORCED POLYMER COMPOSITES: A SHORT REVIEW**

Elias Matias Bentes¹; Sarah De Melo¹; Sergio Monteiro¹

¹Military Institute of Engineering, Rio de Janeiro, Brazil

Paper ID: 177

[CompositePoster5] **INFLUENCE OF FABRICATION TECHNIQUES ON THE BALLISTIC PERFORMANCE OF ARAMID LAMINATED COMPOSITES**

Sarah De Melo¹; Lucas Reis¹; Sergio Monteiro¹

¹Military Institute of Engineering, Rio de Janeiro, Brazil

Paper ID: 190

[CompositePoster6] **BALLISTIC PROPERTIES OF EPOXY COMPOSITES REINFORCED WITH BABASSU FIBERS (ATTALEA SPECIOSA)**

Yago Soares¹

¹Military Institute of Engineering, São Luís, Brazil

Paper ID: 199

[CompositePoster7] **BABASSU COCONUT FIBERS: INVESTIGATION OF CHEMICAL PROPERTIES (ATTALEA SPECIOSA.)**

Yago Soares¹

¹Military Institute of Engineering, São Luís, Brazil

Paper ID: 200

[CompositePoster8] **SIMULATION-BASED ASSESSMENT OF IONIZING ELECTROMAGNETIC RADIATION ABSORPTION COEFFICIENT IN MATERIALS**

Thomaz Jacintho Lopes¹; Ary Machado De Azevedo²; Marcos Paulo Cavaliere de Medeiros²; Sergio Monteiro²; Fernando Manuel Araújo Moreira²

¹Military Institute of Engineering, Duque de Caxias, Brazil; ²Military Institute of Engineering, Rio de Janeiro, Brazil

Paper ID: 207

[CompositePoster9] **ANALYSIS OF THE CRITICALITY OF A FUEL ROD ENCASED IN ZIRCALOY INFUSED WITH GRAPHENE NANOTUBES**

Thomaz Jacintho Lopes¹; Ary Machado De Azevedo²; Marcos Paulo Cavaliere de Medeiros²; Sergio Monteiro²; Fernando Manuel Araújo Moreira²

¹Military Institute of Engineering, Duque de Caxias, Brazil; ²Military Institute of Engineering, Rio de Janeiro, Brazil

Paper ID: 209

[CompositePoster10] **CALCULATION OF THE TRANSMISSION FACTOR FOR ELECTROMAGNETIC RADIATION AND NEUTRONS FOR COMPOSITES BASED ON EPOXY RESIN AND GRAPHENE NANOTUBES**

Thomaz Jacintho Lopes¹; Ary Machado De Azevedo²; Marcos Paulo Cavaliere de Medeiros²; Sergio Monteiro²; Fernando Manuel Araújo Moreira²

¹Military Institute of Engineering, Duque de Caxias, Brazil; ²Military Institute of Engineering, Rio de Janeiro, Brazil

Paper ID: 210

[CompositePoster11] **ACOUSTIC PERFORMANCE ANALYSIS OF SUBFLOOR WITH RUBBER POWDER FROM END-OF-LIFE TIRE WASTE**

Larissa Botelho¹; Gustavo Oliveira¹; Gustavo Xavier¹; Jonas Alexandre¹; José Lima¹; Afonso Rangel Garcez De Azevedo²; Sergio Monteiro³

¹State University of the Northern Rio de Janeiro, Campos dos Goytacazes, Brazil; ²North Fluminense State University Darcy Ribeiro (UENF), Campos dos Goytacazes, Brazil; ³Military Institute of Engineering, Rio de Janeiro, Brazil

Paper ID: 215

[CompositePoster12] **CALCULATION OF THE TRANSMISSION FACTOR FOR ELECTROMAGNETIC RADIATION AND NEUTRONS FOR COMPOSITES BASED ON EPOXY RESIN AND SILICA NANOPARTICLES**

Ary Machado De Azevedo¹; Thomaz Jacintho Lopes²; Marcos Paulo Cavaliere de Medeiros¹; Fernando Manuel Araújo Moreira¹; Sergio Monteiro¹; André Ben-Hur Da Silva Figueiredo¹

¹Military Institute of Engineering, Rio de Janeiro, Brazil; ²Military Institute of Engineering, Duque de Caxias, Brazil

Paper ID: 216

[CompositePoster13] **COMPARATIVE ANALYSIS OF THE CRITICALITY OF A HYPOTHETICAL REACTOR FUEL ELEMENT WITH SIC-DOPED ZIRCALOY-4 RODS**

Ary Machado De Azevedo¹; Thomaz Jacintho Lopes²; Marcos Paulo Cavaliere de Medeiros¹; Fernando Manuel Araújo Moreira¹; Sergio Monteiro¹; André Ben-Hur Da Silva Figueiredo¹

¹Military Institute of Engineering, Rio de Janeiro, Brazil; ²Military Institute of Engineering, Duque de Caxias, Brazil

Paper ID: 217

[CompositePoster14] **COMPARATIVE CRITICALITY ASSESSMENT OF A HYPOTHETICAL FUEL ELEMENT WITH 316 STAINLESS STEEL-CLAD RODS DOPED WITH Nb THROUGH COMPUTATIONAL SIMULATION**

Ary Machado De Azevedo¹; Marcos Paulo Cavaliere de Medeiros¹; Thomaz Jacintho Lopes²; Fernando Manuel Araújo Moreira¹; Sergio Monteiro¹; André Ben-Hur Da Silva Figueiredo¹

¹Military Institute of Engineering, Rio de Janeiro, Brazil; ²Military Institute of Engineering, Duque de Caxias, Brazil

Paper ID: 218

[CompositePoster15] **SIMULATED TRANSMISSION FACTOR CALCULATION OF DEPLETED URANIUM DIOXIDE AS SHIELDING FOR GAMMA RADIATION**

Ary Machado De Azevedo¹; Thomaz Jacintho Lopes²; Sergio Monteiro¹; Marcos Paulo Cavaliere de Medeiros¹; Fernando Manuel Araújo Moreira¹; André Ben-Hur Da Silva Figueiredo¹

¹Military Institute of Engineering, Rio de Janeiro, Brazil; ²Military Institute of Engineering, Duque de Caxias, Brazil

Paper ID: 220

[CompositePoster16] **SIMULATION OF A HYPOTHETICAL NUCLEAR FUEL ELEMENT WITH NIOBIUM-DOPED ZIRCALOY CLADDING**

Ary Machado De Azevedo¹; Thomaz Jacintho Lopes²; Sergio Monteiro¹; Marcos Paulo Cavaliere de Medeiros¹; Fernando Manuel Araújo Moreira¹; André Ben-Hur Da Silva Figueiredo¹

¹Military Institute of Engineering, Rio de Janeiro, Brazil; ²Military Institute of Engineering, Duque de Caxias, Brazil

Paper ID: 221

[CompositePoster17] **INFLUENCE OF CUTTING PARAMETERS ON TOOL WEAR AND PROPERTIES OF SAE 5160 STEEL**

Artur Campos Pereira¹; Isabelle Almeida²; Paulo Assis¹; Sergio Monteiro³

¹Federal University of Ouro Preto, Ouro Preto, Brazil; ²TechnipFMC, Rio de Janeiro, Brazil; ³Military Institute of Engineering, Rio de Janeiro, Brazil

Paper ID: 225

[CompositePoster18] **THERMAL MECHANICAL AND DYNAMIC MECHANICAL ANALYSIS OF SEDGE FIBERS (CYPERUS MALACCENSIS) COATED BY GRAPHENE OXIDE AS A REINFORCEMENT FOR EPOXY MATRIX**

Lucas Neuba¹; Sergio Monteiro²

¹Military Institute of Engineering, Volta Redonda, Brazil; ²Military Institute of Engineering, Rio de Janeiro, Brazil

Paper ID: 227

[CompositePoster19] **INFLUENCE OF SURFACE TREATMENTS OF COFFEE HUSK FIBER WASTE TO APPLY INTO GREEN POLYURETHANE**

Michel Picanço Oliveira¹; Bárbara Maria Mateus Gonçalves¹; Mayara De Oliveira Camillo¹; Felipe Gabriel Santos Araújo²; Henry Alonso Colorado Lopera³; Sergio Monteiro⁴

¹Federal University of Espírito Santo, Jerônimo Monteiro, Brazil; ²Federal University of Espírito Santo, Alegre, Brazil; ³Universidad de Antioquia, Medellín, Colombia; ⁴Military Institute of Engineering, Rio de Janeiro, Brazil

Paper ID: 250

[CompositePoster20] **GLYPHOSATE TOXICITY TO GOLDEN MUSSELS**

Ana Cristina De Carvalho¹; Gislaine Soares Araujo¹; Paulo Assis²; Afonso Pelli³; Braian Soares Leite Araujo¹; Wanderson Geraldo Rodrigues Chaves⁴

¹Federal University of Ouro Preto, Mariana, Brazil; ²Federal University of Ouro Preto, Ouro Preto, Brazil; ³Federal University of Triangulo Mineiro, Uberaba, Brazil; ⁴Unicesumar Paraná Brasil, Mariana, Brazil

Paper ID: 251

[CompositePoster21] **THERMOMECHANICAL CHARACTERIZATION USING DYNAMIC MECHANICAL ANALYSIS (DMA) OF FLAX FIBER-REINFORCED POLYMER COMPOSITES PRODUCED VIA ADDITIVE MANUFACTURING.**

Daysiane Moreira¹

¹Military Institute of Engineering, Rio de Janeiro, Brazil

Paper ID: 296

[CompositePoster22] **GREEN COMPOSITES WITH EUCALYPTUS NANOFIBERS TO ADSORB PETROLEUM**

Ana Paula Soares¹; Michelle Mothé¹; Maria De Fatima Marques¹; Sergio Monteiro²

¹Federal University of Rio de Janeiro, Rio de Janeiro, Brazil; ²Military Institute of Engineering, Rio de Janeiro, Brazil

Paper ID: 297

[CompositePoster23] **ANALYSIS OF THE MECHANICAL PROPERTIES OF SCAFFOLDS MANUFACTURED BY FDM USING PLA/HA BIOCOSMPOSITE WITH HYDROXYAPATITE EXTRACTED FROM THE SCALES OF THE FISH ARAPAIMA GIGAS.**

Edson Miranda Soares¹; Sergio Monteiro²; Verônica Scarpini Candido³

¹Federal University of Pará, Ananindeua, Brazil; ²Military Institute of Engineering, Rio de Janeiro, Brazil; ³Federal University of Pará, Belém, Brazil

Paper ID: 423

[CompositePoster24] **SYNTHESIS AND CHARACTERIZATION OF CALCIUM PHOSPHATE USING THE WET PRECIPITATION METHOD**

Dameres Barbosa Nascimento¹; Sergio Monteiro²; Verônica Scarpini Candido³

¹Federal University of Pará, Ananindeua, Brazil; ²Military Institute of Engineering, Rio de Janeiro, Brazil; ³Federal University of Pará, Belém, Brazil

Paper ID: 424

SESSION: MathematicsPoster	Rowlands International Symposium (7th Intl. Symp. on Sustainable Mathematics Applications)
Room: Foyer	
Poster Session	

[MathematicsPoster1] **A STATEMENT OF THE COSMOLOGICAL CONSTANT PROBLEM AND AN EFFECT OF THE REDUCING OF VACUUM BY MATTER BASED ON UNCERTAINTY RELATIONS**

Grigory Nekrasov¹

¹Moscow Region State University (MRSU), Moscow, Russian Federation

Paper ID: 363

SESSION: NonferrousPoster

Stelter International Symposium (10th Intl. Symp. on Sustainable Non-ferrous Smelting & Hydro/Electrochemical Processing)

Room: Foyer

Poster Session

[NonferrousPoster1] **FLUORINE-TOLERANT DOMESTICATION OF ACIDITHIOBACILLUS FERROOXIDANS AND ENHANCED BIOLEACHING OF VANADIUM-BEARING SHALES**

Yue Wang¹; Zhenlei Cai¹; Yimin Zhang¹; Qiushi Zheng¹

¹Wuhan University of Science and Technology, Wuhan, China

Paper ID: 93

SESSION: AdvancedMaterialsPoster

8th Intl Symposium on New & Advanced Materials and Technologies for Energy, Environment, Health and Sustainable Development

Room: Foyer

Poster Session

[AdvancedMaterialsPoster1] **EXPANDING AND IMPROVING OF ECO-FRIENDLY PUBLIC TRANSPORT SYSTEMS TOWARD SUSTAINABLE CITIES**

Arlinda Rrecaj, Linda¹

¹University of Pristina, Pristina, Kosovo

Paper ID: 308

[AdvancedMaterialsPoster2] **POLYMER- CELLULOSE COMPOSITE ELECTROLYTE FOR IMPROVED ION CONDUCTIVITY IN LITHIUM ION BATTERIES**

Pengfei Zhan¹; Janna Maranas²

¹Northwestern University, Evanston, United States; ²Penn State University, University Park, United States

Paper ID: 314

[AdvancedMaterialsPoster3] **STUDY OF ELECTROLYTIC PURIFICATION OF WASTEWATER FROM COPPER IONS USING BOTH FLAT STEEL CATHODES AND CATHODES MADE OF CARBON-GRAFITE MATERIALS**

Tsisana Gagnidze¹

¹Ivane Javakhishvili Tbilisi State University, Tbilisi, Georgia

Paper ID: 354

[AdvancedMaterialsPoster4] **PROCESSING OF NI-TI ALLOYS THROUGH POWDER METALLURGY AND THEIR MECHANICAL AND MICROSTRUCTURAL BEHAVIOR**

Vinicius Camilo Caitano¹

¹Fimat-Ouro Preto, Ouro Branco, Brazil

Paper ID: 404

[AdvancedMaterialsPoster5] **ENHANCING THE PIEZOELECTRIC COEFFICIENT OF SrTiO₃ NANOCUBES AND PVDF FILM DEPOSITED BY SUPERSONIC SPRAYING FOR ENERGY-HARVESTING NANOGENERATORS**

Jungwoo Huh¹

¹Korea University, Anam, Seoul, South Korea

Paper ID: 411

[AdvancedMaterialsPoster6] **FLEXIBLE HIGH-POWER PIEZOELECTRIC NANOGENERATOR FABRICATION: AUGMENTING ELECTROACTIVE B- AND Γ-PHASES OF PVDF WITH SUPERSONICALLY SPRAYED Sr₂SnO₄ NANORODS**

Woojin Lim¹

¹Korea University, Seoul, South Korea

Paper ID: 412

[AdvancedMaterialsPoster7] **TUNABLE PSEUDOCAPACITANCE OF ELECTROSPUN CARBON/IRON-VANADIUM OXIDE NANOFIBERS FOR HIGH-ENERGY-DENSITY FLEXIBLE SUPERCAPACITORS**

Jiwon Jang¹

¹Korea University, Seoul, South Korea

Paper ID: 413

[AdvancedMaterialsPoster8] **UPCYCLING OF POST-CONSUMER PET BOTTLES INTO P-DOPED ANODE MATERIALS FOR HIGH-PERFORMANCE LITHIUM-ION BATTERIES**

Dossym Yeskozha¹; Arailym Nurpeissova²; Aisha Zhanaikhan¹; Aizhuz

Sarsengaliyeva¹

¹Institute of Batteries LLP, Astana, Kazakhstan; ²Institute of Batteries LLC, Nur-Sultan, Kazakhstan

Paper ID: 434

[AdvancedMaterialsPoster9] **COMPOSITE g-C₃N₄/tMeS FOR PHOTOCATALYTIC HYDROGEN EVOLUTION**

Abylay Abilkhan¹; Batukhan Tatykayev¹

¹Nazarbayev University, Astana, Kazakhstan

Paper ID: 452

SESSION: AgroforestryPoster

**International Symposium on
Agroforestry for Sustainable
Development**

Room: Foyer

Poster Session

[AgroforestryPoster1] **SOIL IMPACTED BY IRON ORE EXTRACTION IN DIFFERENT STAGES OF RECOVERY**

Marcia Ribeiro¹; Ivanildo Marriel²; Guilherme Barroso³; Paulo Assis⁴

¹Caetanópolis, Brazil; ²EMBRAPA Milho e Sorgo, Sete lagoas, Brazil; ³Federal University of Vales do Jequitinhonha e Mucuri, Teófilo Otoni, Brazil; ⁴Federal University of Ouro Preto, Ouro Preto, Brazil

Paper ID: 320

SESSION: AluminumPoster

**7th Intl. Symp. on Sustainable
Aluminum Extraction & Processing**

Room: Foyer

Poster Session

[AluminumPoster1] **AI-Driven INNOVATIONS FOR SUSTAINABILITY IN THE ALUMINUM SUPPLY CHAIN**

Van Mendoza¹

¹Strata Resources, Castaic, United States

Paper ID: 531

SESSION: BatteryPoster

**9th Intl. Symp. on Sustainable
Secondary Battery Manufacturing &
Recycling**

Room: Foyer

Poster Session

[BatteryPoster1] **DEVELOPMENT OF FUNCTIONAL COMPOSITE MATERIALS FOR LITHIUM SULFUR BATTERY**

Mukhammed Kenzhebek¹; **Fail Sultanov**¹; Almagul Mentbayeva¹

¹Nazarbayev University, Astana, Kazakhstan

Paper ID: 422

SESSION: ConstructionPoster

**9th International Symposium on
Sustainable Construction Materials**

Room: Foyer

Poster Session

[ConstructionPoster1] **HIGH-TEMPERATURE SHS HEAT INSULATORS BASED ON PRE-ACTIVATED MINERAL RAW MATERIALS**

Ayagoz Bakkara¹

¹The Institute of Combustion Problems, Almaty, Kazakhstan

Paper ID: 447

SESSION: ElectrochemistryPoster

5th Intl. Symp. on Electrochemistry for Sustainable Development

Room: Foyer

Poster Session

[ElectrochemistryPoster1] **ELECTROCHEMISTRY IN ADSORBED 2D LAYER ON THE LAGMUIR BLODGETT THROUGH**

Lubomír Pospíšil¹; **František Vavrek**¹; Veronika Urbanová²; Tomáš Bartl²; Paul Ionut Dron²; Josef Michl²; Oldřich Pačes²; Katarina Varga²

¹J. Heyrovský Institute of Physical Chemistry, Czech Academy of Sciences, Prague, Czech Republic; ²Institute of Organic Chemistry and Biochemistry, Czech Academy of Sciences, Prague, Czech Republic

Paper ID: 30

[ElectrochemistryPoster2] **STM-BASED BREAK JUNCTION TECHNIQUE AS AN EFFECTIVE TOOL FOR EXAMINING STATES OF CONJUGATION IN MOLECULAR SYSTEMS**

František Vavrek¹; Jindřich Gasior¹; Magdaléna Hromadová¹

¹J. Heyrovský Institute of Physical Chemistry, Czech Academy of Sciences, Prague, Czech Republic

Paper ID: 65

SESSION: EnergyPoster

9th Intl. Symp. on Sustainable Energy Production: Fossil; Renewables; Nuclear; Waste handling, processing, & storage for all energy production technologies; Energy conservation

Room: Foyer

Poster Session

[EnergyPoster1] **ENERGY SECURITY VS. ENVIRONMENTAL SUSTAINABILITY: RETHINKING KOSOVO'S COAL-BASED POWER SECTOR**

Musa Rizaj¹; Ali Caka²

¹University of Pristina, Pristina, Kosovo; ²Alb-Science Institute, Pristina, Kosovo

Paper ID: 527

[EnergyPoster2] **FROM LIGNITE TO LCA: TRANSFORMING KOSOVO'S INDUSTRY THROUGH SUSTAINABLE PRACTICES**

Ali Caka¹; Musa Rizaj²

¹Alb-Science Institute, Pristina, Kosovo; ²University of Pristina, Pristina, Kosovo

Paper ID: 528

SESSION: MedicinePoster

**3rd Intl. Symp. on Technological
Innovations in Medicine for Sustainable
Development**

Room: Foyer

Poster Session

[MedicinePoster1] **CELLULAR AND ANTIBACTERIAL PROPERTIES OF TiN-Cu COMPOSITE COATINGS INDUCED BY Mg+ IMPLANTATION**

Dejun Li¹

¹Tianjin Normal University, Tianjin, China

Paper ID: 11

SESSION: MoltenPoster

**10th Intl. Symp. on Sustainable Molten
Salt, Ionic & Glass-forming Liquids &
Powdered Materials**

Room: Foyer

Poster Session

[MoltenPoster1] **THE PHENOMENON OF ELECTROCATALYSIS IN THE IMPLEMENTATION OF SUSTAINABLE HIGH-TEMPERATURE ELECTROCHEMICAL SYNTHESIS OF REFRACTORY METAL CARBIDES**

Inessa Novoselova¹; Anatoliy Omel'chuk¹

¹V.I. Vernadsky Institute of General and Inorganic Chemistry, National Academy of Sciences of Ukraine, Kyiv, Ukraine

Paper ID: 33

[MoltenPoster2] **ELECTROCHEMICAL SYNTHESIS OF MOLYBDENUM AND TUNGSTEN CARBIDES IN MOLTEN SALTS: INFLUENCE OF ELECTROLYSIS CONDITIONS AND COMPOSITION (ACID-BASE PROPERTIES) OF THE REACTION MEDIUM**

Inessa Novoselova¹; Anatoliy Omel'chuk¹

¹V.I. Vernadsky Institute of General and Inorganic Chemistry, National Academy of Sciences of Ukraine, Kyiv, Ukraine

Paper ID: 46

[MoltenPoster3] **ELECTRICAL CONDUCTIVITY OF MULTICOMPONENT MOLTEN MIXTURES BASED ON LiCl-KCl EUTECTIC**

Alexander Salyulev¹; **Alexei Potapov**¹

¹Institute of High Temperature Electrochemistry, Ekaterinburg, Russian Federation
Paper ID: 170

[MoltenPoster4] **ELECTRICAL CONDUCTIVITY OF MOLTEN (LiCl-KCl)_{eut.}- HfCl₄ MIXTURES**

Alexander Salyulev¹; **Alexei Potapov**¹

¹Institute of High Temperature Electrochemistry, Ekaterinburg, Russian Federation
Paper ID: 171

[MoltenPoster5] **VOLATILITY OF UCl₄, ThCl₄, HfCl₄, ZrCl₄, AND TiCl₄ FROM THEIR MOLTEN MIXTURES WITH ALKALI METAL CHLORIDES AND SATURATED VAPOR COMPOSITION**

Alexander Salyulev¹; **Alexei Potapov**¹; Vladimir Kudyakov¹

¹Institute of High Temperature Electrochemistry, Ekaterinburg, Russian Federation
Paper ID: 172

[MoltenPoster6] **OPTICAL SPECTROSCOPY OF CHLORINE GAS**

Artem Kolobov¹; **Alexei Potapov**²; Vladimir Khokhlov²

¹JSC «DINUR», Pervouralsk, Russian Federation; ²Institute of High Temperature Electrochemistry, Ekaterinburg, Russian Federation
Paper ID: 173

[MoltenPoster7] **CHLORINE SOLUTIONS IN MOLTEN ALKALI CHLORIDES**

Artem Kolobov¹; **Alexei Potapov**²; Vladimir Khokhlov²

¹JSC «DINUR», Pervouralsk, Russian Federation; ²Institute of High Temperature Electrochemistry, Ekaterinburg, Russian Federation
Paper ID: 174

[MoltenPoster8] **f – d TRANSITIONS IN TbCl₃ AND CeCl₃ ELECTRONIC SPECTRA IN CHLORIDE MELTS**

Alexei Potapov¹; Alexander Salyulev¹

¹Institute of High Temperature Electrochemistry, Ekaterinburg, Russian Federation
Paper ID: 289

[MoltenPoster9] **ELECTROCHEMICAL BEHAVIOUR OF (NH₄)₂TiF₆ AND NH₄BF₄ IN ACETAMIDE MELTS**

Sergei Devyatkin¹; Fan Meng¹; Peixia Yang¹

¹Harbin Institute of Technology, Harbin, China
Paper ID: 343

SESSION: RecyclingPoster

10th Intl. Symp. on Sustainable
Materials Recycling Processes &
Products

Room: Foyer

Poster Session

[RecyclingPoster1] **ORGANIC-MINERAL MIXTURE FOR THE REFRACTORIES
PRODUCTION**

Svetlana Yefremova¹; **Baimakhan Satbaev**²; Sergey Yermishin³; **Nurgali Shalabaev**⁴;
Serik Satbaev⁵; Abdurassul Zharmenov⁶

¹National Center on Complex Processing of Mineral Raw Materials of the Republic of Kazakhstan, Almaty, Kazakhstan; ²National Center on Complex Processing of Mineral Raw Materials of the Republic of Kazakhstan, Astana, Kazakhstan; ³National Center on Complex Processing of Mineral Raw Materials of the Republic of Kazakhstan RSE, Almaty, Kazakhstan; ⁴Karaganda Industrial University, Temirtau, Kazakhstan; ⁵National Center on Complex Processing of Mineral Raw Materials, Astana, Kazakhstan;

⁶National Center on Complex Processing of Mineral Raw Materials, Almaty, Kazakhstan

Paper ID: 533

Technical Program Authors Index

A

A.S. de Brum Irineu: MineralMonPM414
Abe Koji: OxidativeMonPM101
Abilkhan Abylay: AdvancedMaterials Session (Poster)
Acocella Maria Rosaria: BiocharTuePM102
Acuña Carlos: PharmaceuticalWedPM102
Addi Yassine: Physical Session (Poster)
Afzal Muhammad: BiocharTuePM103
Agiasofitou Eleni: MathematicsTuePM104, MathematicsTuePM103
Ahmad Nadia Mohamed: BiocharTuePM104
Alario Franco Miguel A.: SolidStateChemistryWedPM414
Aleksandrova Tatyana: MineralMonPM416, MineralWedPM416
Alexandre Jonas: Composite Session (Poster)
Ali Usman: ConstructionTuePM414
Almeida Isabelle: Composite Session (Poster)
Almog Shulamit: LawsTuePM207
Alvaro Matteo: GeochemistryMonPM413
Amantia Simone: EnergyTuePM414
Amarasekara Ananda: EnergyWedPM309
Ambros Wesley: MineralMonPM414, MineralWedPM205, MineralWedPM208
An Liang: EnergyTuePM312
Anastassakis Georgios N.: MineralMonPM207, MineralMonPM413, MineralMonPM309, MineralMonPM102, MineralMonPM101
Andrade Agnaldo: LawsWedPM206, LawsWedPM205
Andreou Evangelos K.: SolidStateChemistryWedPM311
Andric Ljubisa: MineralWedPM104
Andric Vladimir: MineralMonPM312
Angelini Ivana: GeochemistryMonPM312
Angelopoulos Panagiotis: MineralMonPM207
Antoni Monika: SISAMTuePM309, SISAMTuePM310
Antrekowitsch Juergen: CarbonWedPM101
Antunes De Medeiros Giulio: IronMonPM207, IronMonPM208, IronMonPM102
Araújo Felipe Gabriel Santos: Composite Session (Poster)
Araújo Raquel: LawsWedPM208, IronTuePM101
Araujo Gois Gabriela: LawsWedPM208, IronTuePM102, IronTuePM103, IronTuePM101, IronTuePM104
Arévalo-Lopez Ángel M.: SolidStateChemistryWedPM414
Armand Michel: SolidStateChemistryWedPM103
Armatas Gerasimos S.: SolidStateChemistryWedPM311
Artioli Gilberto: GeochemistryMonPM312
Asad Bashar Ul: ConstructionTuePM414
Ashrafi Ehsan Ahmed: NonferrousTuePM309
Assis Paulo: LawsWedPM206, IronMonPM413, LawsWedPM205, IronTuePM103,

IronTuePM104, IronTuePM205, RecyclingMonPM414, IronTuePM207
Azmat Rafia: PhysicalWedPM104

B

Baba Kanako: OxidativeMonPM207
Babenko Anatoly: IronMonPM309, IronMonPM311
Bajcinca Naim: EnergyTuePM415
Bakenov Zhumabay: BatteryWedPM205
Bakkara Ayagoz: Construction Session (Poster)
Balzana Anacleto Nathalia: ManufacturingWedPM414, IronTuePM206
Bannikova Svetlana: NonferrousTuePM310
Barakoti Ekadashi: EnergyWedPM103
Barbin Nicolay: IronMonPM206
Barbosa Nascimento Damares: Composite Session (Poster)
Barbour Len: PhysicalWedPM103
Barinova Michaela: RecyclingMonPM205
Barroso Guilherme: Agroforestry Session (Poster)
Bartl Tomáš: Electrochemistry Session (Poster)
Barvitskiy Pavlo: AdvancedMaterialsTuePM309
Basaiaimoit Rajiv Vaid: MineralWedPM310
Basholli Habib: Mineral Session (Poster)
Battaglia Vincent: EnergyWedPM104
Baumgartner Stephan: PharmaceuticalWedPM102
Büchner Bernd: AdvancedMaterialsWedPM205
Büyükfirat Burak: SummitPlenaryMonPM309, GlassMonPM309
Belec Blaž: SISAMMonPM206
Beltran-Prieto Juan Carlos: RecyclingMonPM205
Ben-Hur Da Silva Figueiredo André: CompositeMonPM311, Composite Session (Poster)
Berger Samuel: LawsMonPM102, SummitPlenaryWedPM104
Berja Torres Alba: SISAMTuePM205
Bertau Martin: MineralMonPM415
Bhima Rao Raghupatruni: MineralWedPM103
Biswas Kanishka: SolidStateChemistryMonPM310
Blanco Juan Maria: SISAMTuePM206
Blenau Ludwig: NonferrousTuePM206, NonferrousTuePM207, NonferrousTuePM208, NonferrousTuePM309
Bo Wenbin: GlassMonPM416
Boczkal Grzegorz: SISAMTuePM309, SISAMTuePM310
Bogdanović Grozdanka: Mineral Session (Poster)
Bonatti Laura: GeochemistryMonPM103
Borimskiy Alexander: AdvancedMaterialsTuePM309
Botelho Larissa: Composite Session (Poster)
Bountis Anastassios: MathematicsWedPM312
Bregasi Amarildo: Laws Session (Poster)

Breitmoser Hans George: PharmaceuticalTuePM310
Brodth Alexander: MineralWedPM414
Brooks Oliver: SISAMTuePM205
Buchmann Stephan: PharmaceuticalWedPM101
Buffa Gianluca: EnergyTuePM414
Bultmann Martin: PharmaceuticalTuePM311
Bunt John: CarbonWedPM103, CarbonWedPM104
Burkhardt Carlo: SISAMWedPM205, SISAMTuePM205, SISAMMonPM311, SISAMTuePM311, SISAMMonPM312, SISAMTuePM312
Burkhardt Fabian: SISAMWedPM309, SISAMWedPM310
Burova Julia: IronMonPM206

C

Cabral Larah: CompositeMonPM416
Cagsin Huseyin: OxidativeTuePM207
Cai Zhenlei: Nonferrous Session (Poster)
Caka Ali: Energy Session (Poster)
Calin Mariana: SISAMWedPM206
Camillo Mayara De Oliveira: Composite Session (Poster)
Camilo Caitano Vinicius: Physical Session (Poster)
Campanella Davide: EnergyTuePM414
Camposo Pereira Artur: Composite Session (Poster)
Cantini Fernando: MineralWedPM205
Cantisán Gómez Julia: MathematicsWedPM312
Castelán Mario: PharmaceuticalWedPM102
Cavaliere de Medeiros Marcos Paulo: CompositeMonPM312, CompositeMonPM309, CompositeMonPM310, CompositeMonPM311
Cengeri Peter: SISAMTuePM309, SISAMTuePM310
Charitos Alexandros: NonferrousTuePM104, NonferrousTuePM205, NonferrousTuePM206, NonferrousTuePM207, NonferrousTuePM208, NonferrousTuePM309, NonferrousTuePM312
Chatterjee Avishek: AdvancedMaterialsWedPM103
Chattopadhyay Brajadulal: AdvancedMaterialsWedPM103
Chatzantourian Paul: MineralWedPM311
Chaulet Jérémy: NonferrousTuePM101
Chellal Khalida: Iron Session (Poster)
Chen Jianxin: SISAMTuePM101, SISAMTuePM102
Chen Ling: SolidStateChemistryMonPM312
Chen Qijue: RecyclingMonPM309
Chikhradze Mikheil: AdvancedMaterialsTuePM311
Chikhradze Nikoloz: AdvancedMaterialsTuePM311
Chirambatte Peter Sebastian: SolidStateChemistryMonPM309
Chirume George Marufu: MathematicsWedPM415
Choi Kyoung-Shin: SolidStateChemistryMonPM102
Christoforo André Luis: CompositeMonPM104

Chung In: SolidStateChemistryWedPM309
Ciechanover Aaron: SummitPlenaryWedPM208
Çinari Silvana: LawsWedPM207
Clauson Souza Clauson: NonferrousTuePM416
Coey Michael: SISAMMonPM309, SISAMMonPM310
Cohen Miriam: LawsMonPM416
Comunetti François: PharmaceuticalTuePM416
Coperet Christophe: SolidStateChemistryWedPM101
Correia Da Silva Charle: AdvancedMaterialsTuePM414, SISAMTuePM415, CompositeMonPM416
Corte-Leon Paula: SISAMMonPM205, SISAMTuePM206
Cortes Pablo: LawsMonPM413, LawsMonPM414
Coura Dimas: IronMonPM413, IronTuePM207
Cuevas–Maraver Jesús: MathematicsWedPM312
Cvijović-Alagić Ivana: AdvancedMaterialsTuePM102

D

D'Arrigo Rafael: MineralWedPM205
Da Silva Roseméri Barbosa Dos Santos: CompositeMonPM208
Da Silva Jr Amilton: SISAMTuePM207
Da Silva Moraes Pierre: SummitPlenaryTuePM103
Daniska Scott: OxidativeMonPM207, OxidativeMonPM312
Dasan Arish: GlassWedPM102
De Almeida Marinho Farzat Thays: CompositeMonPM414
De Campos Marcos: SISAMTuePM207, EnergyTuePM310, EnergyWedPM102, IronMonPM103, IronMonPM207, IronMonPM208, IronMonPM102, AdvancedMaterialsTuePM414, EnvironmentalMonPM104, SISAMTuePM415, CompositeMonPM416, LawsMonPM415, SISAMWedPM414, AdvancedMaterialsTuePM413
De Carvalho Ana Cristina: Composite Session (Poster)
De Castro Jose Adilson: SISAMTuePM207, IronMonPM103, IronMonPM207, IronMonPM208, IronMonPM102, SISAMTuePM415
De Castro Martins Gabrielle: ManufacturingWedPM414, IronTuePM206
De Lima Ingrid R: SISAMTuePM207, SISAMTuePM415, CompositeMonPM416
De Melo Sarah: Composite Session (Poster)
De Paula Araujo E Souza Adriana: ManufacturingWedPM414, IronTuePM206
De Paula Dias Clarissa: CompositeMonPM206
De Souza Kaio St: SISAMTuePM207, SISAMTuePM415
De Vivo Benedetto: GeochemistryMonPM208
Degefu Yohannes: MathematicsTuePM309
Demi Genc: Mineral Session (Poster)
Deva Taru: MineralWedPM310
Devapati Rupesh: AdvancedMaterialsTuePM103
Devyatkin Sergei: Molten Session (Poster)
Dhall Shivani: CarbonWedPM205

Dickerson David: OxidativeMonPM207, OxidativeMonPM312
Dietrich Sabine: GeochemistryMonPM104
Diniz Igor: RecyclingMonPM414, RecyclingMonPM413
Djurado Elisabeth: SolidStateChemistryMonPM415
Dmitriev Andrey: IronMonPM205, IronMonPM206
Dobrzhinetskaya Larissa: GeochemistryMonPM207
Dodds Harold: EnergyTuePM309
Doesburg Paul: PharmaceuticalWedPM102
Douloumis Andreas: SolidStateChemistryWedPM311
Doumanidis Charalabos: ManufacturingWedPM413
Douni Illiana: MineralWedPM206
Dova Vasiliki: MineralMonPM413
Dravid Vinayak: SolidStateChemistryMonPM205
Dron Paul Ionut: Electrochemistry Session (Poster)
Duarte Tibério Graco: Physical Session (Poster)
Dubois Jean-Marie: SISAMWedPM312

E

Ebert Doreen: NonferrousTuePM208
Eckert Jürgen: SISAMTuePM103, SISAMTuePM309, SISAMTuePM104, SISAMTuePM310
Egorov Vladimir Valentinovich: SolidStateChemistryWedPM205, MedicineWedPM205, MedicineWedPM104
El Zanfaly Helmy: BiocharTuePM104
Erol Mehmet Şevket: SummitPlenaryMonPM208
Eskin Leo: PharmaceuticalTuePM415
Evangelou Eirini: MineralMonPM309
Even Jacky: SolidStateChemistryMonPM103

F

Fankhänel Beate: NonferrousTuePM205
Farha Omar: SolidStateChemistryTuePM414
Farooq Muneeb: ConstructionTuePM415
Fecht Hans: SISAMMonPM413, SISAMMonPM414
Felipe Elaine: NonferrousTuePM416
Felki Lars: NonferrousTuePM104, NonferrousTuePM309
Feng Dawei: GeochemistryMonPM415
Fernandes Francis V: MedicineWedPM102, MedicineWedPM101
Fernandez Tracy: MineralWedPM208
Ferreira Pedro Augusto Possa Vicente Sacramento: NonferrousTuePM416
Ferreira Santos Jr. Wilson: LawsWedPM206, LawsWedPM205
Fischer Peter: SISAMMonPM208

Fraga Silva Marllon: CompositeMonPM413
Frank Joachim: SummitPlenaryWedPM207
Fratini Livan: EnergyTuePM414
Frousiou Maria-Sotiria: MineralMonPM310
Fu Boyang: AdvancedMaterialsWedPM207
Fu Junhao: MineralMonPM311
Fujiwara Kazuha: OxidativeMonPM207, OxidativeMonPM312
Fukui Koji: OxidativeTuePM102, OxidativeMonPM309

G

G N Manjunatha Reddy: SolidStateChemistryMonPM413
Gagnidze Tsisana: AdvancedMaterials Session (Poster)
Galusek Dušan: GlassWedPM102
Gao Huanyao: OxidativeMonPM104
Gardas Ramesh: MoltenTuePM206
Gasior Jindřich: Electrochemistry Session (Poster)
Gatta G. Diego: GeochemistryMonPM414
Gavronski Jorge: MineralWedPM207
Gebert Annett: SISAMWedPM206
Gebre Tewelde: EnvironmentalWedPM310
Geiger Franz: SolidStateChemistryWedPM102
Georgiev Svetlin: MathematicsTuePM102
Giraud Pierre-Louis: MineralMonPM208
Godwin Patrick: BiocharTuePM103
Goel Abhimanyu: ConstructionTuePM310, ConstructionTuePM311
Göpfert Beat: PharmaceuticalTuePM103
Gomes Dos Santos Evandro: MineralMonPM414
Gonçalves Bárbara Maria Mateus: Composite Session (Poster)
Granato Leonardo: RecyclingMonPM414, RecyclingMonPM413
Grau Laura: SISAMTuePM205
Greer A. Lindsay: SISAMWedPM101, SISAMWedPM102
Grekulovic Vesna: NonferrousTuePM310
Gruden Belavič Alenka: SISAMTuePM205
Guerra Wilson José: RecyclingMonPM414
Guo Zhijie: ConstructionTuePM312
Gutierrez Joffre: AdvancedMaterialsWedPM205
Gutzmer Jens: NonferrousTuePM312
Guy Bradley Martin: NonferrousTuePM208

H

Hadar Ido: SolidStateChemistryTuePM311
Hamad Alhassan: PharmaceuticalTuePM102, PharmaceuticalTuePM310

Han Andy: Laws Session (Poster)
Han Haisheng: MineralMonPM311
Hanke Gustav: CarbonWedPM102
Harakawa Yoshiaki: OxidativeTuePM101, OxidativeMonPM310, OxidativeMonPM311, OxidativeMonPM205, OxidativeMonPM413, OxidativeMonPM102, OxidativeTuePM102, OxidativeMonPM309, OxidativeTuePM104
Hartmann-Piraudeau Andrea: LawsWedPM414
Hashimoto Keiko: OxidativeMonPM208
Hassan Pirzada Rameez: OxidativeTuePM207
He Jiaqing: SolidStateChemistryMonPM311
He Yihui: SolidStateChemistryWedPM206
Heleno Gameiro Danton: IronTuePM205
Hemley Russell: GeochemistryMonPM310
Henni Amr: AdvancedMaterialsTuePM310, MoltenTuePM205
Hersh Emily: SummitPlenaryWedPM205
Hershko Avram: SummitPlenaryMonPM206
Hess Thomas: GeochemistryMonPM311
Hiott Andrea: NonferrousTuePM413
Hirano Shigeru: OxidativeMonPM208, OxidativeMonPM103, OxidativeMonPM414, OxidativeTuePM103, OxidativeTuePM205
Horky Jelena: SISAMTuePM309, SISAMTuePM310
Hossain Md Naziat: NonferrousTuePM312
Householder Megan: GeochemistryMonPM205
Howard Thomas Wolfgang: NonferrousTuePM102, NonferrousTuePM103
Hromadová Magdaléna: Electrochemistry Session (Poster)
Hu Pengcheng: ConstructionTuePM312
Hu Yuehua: MineralMonPM311
Huang Jing: ConstructionTuePM312
Huh Jungwoo: AdvancedMaterials Session (Poster)
Hunter Bryan: SolidStateChemistryMonPM414
Huremović Damir: SISAMTuePM205

|

Ibáñez Maria: SolidStateChemistryTuePM309
Ide Emi: OxidativeMonPM207
Ihle Justus: NonferrousTuePM207
Ingarao Giuseppe: EnergyTuePM414
Inoue Akihisa: SISAMTuePM101, SISAMTuePM102
Inufusa Haruhiko: SummitPlenaryMonPM103, OxidativeMonPM208, OxidativeTuePM101, OxidativeMonPM310, OxidativeMonPM311, OxidativeMonPM205, OxidativeMonPM413, OxidativeMonPM102, OxidativeMonPM103, OxidativeMonPM414, OxidativeTuePM102, OxidativeMonPM206, OxidativeMonPM309, OxidativeTuePM103, LawsMonPM103, OxidativeTuePM104, OxidativeTuePM205
Ioannou Panagiotis: SolidStateChemistryMonPM206

Irfan Muhammad: ConstructionTuePM414

J

J. Alter Harvey: SummitPlenaryTuePM102

Jacintho Lopes Thomaz: CompositeMonPM312, CompositeMonPM309,
CompositeMonPM310, CompositeMonPM311, CompositeMonPM414

Jagielski Stanislaw: EnergyTuePM413

Jang Jiwon: AdvancedMaterials Session (Poster)

Jenus Petra: SISAMWedPM207, SISAMMonPM206

Jiang Yongchao: AdvancedMaterialsTuePM104

Jiang Zhuoer: RecyclingMonPM309, GlassMonPM415

Jiao Shuhao: AdvancedMaterialsTuePM208

Johnson Mark: MathematicsWedPM309

Jordi-Koi Markus Hermann: PharmaceuticalTuePM414

Joseph Davis: SummitPlenaryMonPM104

Jung Yousung: SolidStateChemistryWedPM208

K

Kalashnikov Kirill: EnergyTuePM414

Kanatzidis Mercouri G.: SolidStateChemistryMonPM101

Kaneko Mami: OxidativeTuePM103

Kanungo Alok Kumar: GlassWedPM101

Karagianni Vasiliki: SolidStateChemistryMonPM416

Karam Sabah: MathematicsMonPM104

Karim Ibrahim: PharmaceuticalTuePM101, PharmaceuticalTuePM309,
PharmaceuticalTuePM413

Karpets Myroslav: AdvancedMaterialsWedPM205, AdvancedMaterialsWedPM101,
AdvancedMaterialsTuePM205, AdvancedMaterialsTuePM309

Katan Claudine: SolidStateChemistryMonPM103

Kato Yugo: OxidativeMonPM309

Kauffman Louis: MathematicsMonPM205

Kavalopoulos Christos: MineralMonPM104

Kaya Yavuzhan: SummitPlenaryMonPM208

Kelly Norman: NonferrousTuePM208

Kenzhebek Mukhammed: BatteryWedPM205

Kethamkuzhi Aiswarya: AdvancedMaterialsWedPM205

Kevrekidis P.: MathematicsWedPM312

Khanna Sanjeev: AdvancedMaterialsTuePM103

Khokhlov Vladimir: Molten Session (Poster)

Kholmetskii Alexander L.: MathematicsWedPM310

Khoshima Sina: SISAMWedPM205

Khumalo Mandla Vincent: CompositeMonPM103

Kiani Aida: BiocharTuePM102
Kibona Isack E.: EnvironmentalWedPM309, MathematicsWedPM311
Kim Myung-Gil: SolidStateChemistryWedPM207
Kimura Go: PharmaceuticalTuePM312
Kirchheim Reiner: SISAMWedPM103, SISAMWedPM104
Kishimoto Ayuta: OxidativeMonPM309
Kluge Robert: AdvancedMaterialsWedPM205
Kobe Spomenka: SISAMWedPM309, SISAMTuePM205, SISAMTuePM311, SISAMTuePM312, SISAMWedPM310
Koch Carl: SISAMWedPM413
Kocjan Andraž: SISAMMonPM206
Kokornaczyk Maria Olga: PharmaceuticalWedPM102
Kola Tafaj Flutura: LawsWedPM207
Kolobov Artem: Molten Session (Poster)
Kolomaznik Karel: RecyclingMonPM205
Komelj Matej: SISAMTuePM311, SISAMWedPM208, SISAMWedPM207, SISAMTuePM312
Kong Fanli: SISAMTuePM101, SISAMTuePM102
Kongoli Florian: LawsMonPM101, SummitPlenaryMonPM101, SummitPlenaryWedPM101
Kongoli Florian: OxidativeMonPM206, LawsMonPM102
Konvalova Nadezda: Iron Session (Poster)
Kopidakis Georgios: SolidStateChemistryWedPM311
Kota Sesi Preetam: NonferrousTuePM415
Kotlidas Georgios: LawsTuePM205
Kovalenko Maksym: SolidStateChemistryTuePM101, SolidStateChemistryTuePM205
Kovalenko Vasyil: AdvancedMaterialsTuePM102
Kovač Janez: SISAMTuePM205
Kraft Michael: MineralMonPM415
Kraxner Jozef: GlassMonPM413, GlassWedPM102
Kriven Waltraud M.: GeochemistryMonPM206
Kromiçi Armela: LawsWedPM413
Krylov Sergey: PhysicalWedPM102
Kua Harn Wei: ConstructionTuePM309, ConstructionTuePM310, ConstructionTuePM311, BiocharTuePM101
Kudyakov Vladimir: Molten Session (Poster)
Kulka Andrzej: AdvancedMaterialsWedPM207
Kunca Branislav: SISAMTuePM309, SISAMTuePM310
Kupecki Jakub: EnergyTuePM413
Kuprin Alexander: AdvancedMaterialsTuePM205
Kussmann Martin: OxidativeTuePM208
Kuznetcov Valentin: MineralMonPM416
Kwegyir Stephen: NonferrousTuePM309
Kyratsi Theodora: SolidStateChemistryMonPM206

L

Ladeira Ana Claudia: NonferrousTuePM416
Lahav Ori: MineralWedPM309
Lamberti Elena: BiocharTuePM102
Lazar Markus: MathematicsTuePM104, MathematicsTuePM103
Leal Elisângela: IronMonPM413, IronTuePM207
Lehn Jean-Marie: SummitPlenaryTuePM207
Leite Luiz: IronMonPM413, IronTuePM205, IronTuePM207
Leite De Andrade Sergio: IronMonPM101
Leuenberger Hans: PharmaceuticalMonPM205, PharmaceuticalMonPM206
Li Dejun: Medicine Session (Poster)
Li Jiaqi: RecyclingMonPM311
Li Keyun: AdvancedMaterialsWedPM104
Lichvár Peter: GlassWedPM207
Lili-Kokkori Mariadina: LawsMonPM312
Lilova Kristina: GeochemistryMonPM103, GeochemistryMonPM205
Lim Woojin: AdvancedMaterials Session (Poster)
Lima José: Composite Session (Poster)
Lindstrom-Parkins Maya Joy: BatteryWedPM208
Linhares Mario: SummitPlenaryTuePM104
Lipkowski Janusz: PhysicalTuePM101
Liu Hong: NonferrousTuePM311, GlassMonPM416
Liu Jie: RecyclingMonPM208
Liu Tao: ConstructionTuePM312
Liu Zi-Kui: GeochemistryMonPM309
Lizzio Sofia: LawsMonPM310
Lokatkina Anastasia: AdvancedMaterialsTuePM309
Lopera Henry Alonso Colorado: CompositeMonPM102, CompositeMonPM205, CompositeMonPM415, Composite Session (Poster)
Lu Haipeng: SolidStateChemistryWedPM413
Lyons James: GeochemistryMonPM205

M

Machado De Azevedo Ary: CompositeMonPM312, CompositeMonPM309, CompositeMonPM310, CompositeMonPM311
Maci Ardian: EnvironmentalMonPM103
Macias-Diaz J. E.: MathematicsWedPM312
Madej Jerzy: AdvancedMaterialsTuePM102
Mahmoud Mokhtar: GlassWedPM102
Mahobia Gs: IronMonPM104
Maimon Ran: MineralWedPM414
Maliachova Katerina: MineralWedPM206
Malltezi Argita: LawsWedPM413
Manataki Andriani: AdvancedMaterialsTuePM206
Mangelis Panagiotis: SolidStateChemistryMonPM206
Manuel Araújo Moreira Fernando: CompositeMonPM312, CompositeMonPM309,

CompositeMonPM310, CompositeMonPM311
Mao Lingling: SolidStateChemistryWedPM104
Maqsoom Ahsen: ConstructionTuePM414
Maranas Janna: AdvancedMaterials Session (Poster)
Marchal Christian: MathematicsWedPM310
Marcus Rudy: SummitPlenaryWedPM102
Marilović Dragana: Mineral Session (Poster)
Marinho Michelle Dos Santos: ManufacturingWedPM414, IronTuePM206
Markoli Bostjan: SISAMTuePM311, SISAMTuePM312
Marongiu Daniela: SolidStateChemistryTuePM312
Marques Maria De Fatima: Composite Session (Poster)
Marquis Fernand D. S.: AdvancedMaterialsTuePM311, AdvancedMaterialsWedPM205, AdvancedMaterialsTuePM101, AdvancedMaterialsWedPM101, AdvancedMaterialsTuePM102, AdvancedMaterialsTuePM205, AdvancedMaterialsTuePM309
Marriel Ivanildo: Agroforestry Session (Poster)
Martín-Gonzalez Marisol: SolidStateChemistryWedPM312
Matias Bentes Elias: Composite Session (Poster)
Matovic Branko: AdvancedMaterialsTuePM102
Mavis Merdiye: OxidativeTuePM207
Mcavoy Darren: BiocharTuePM205
McNeil Malcolm: LawsMonPM311
Men He: SISAMTuePM101, SISAMTuePM102
Mendes Amanda: RecyclingMonPM414, RecyclingMonPM413
Mendoza Van: Aluminum Session (Poster)
Meng Fan: Molten Session (Poster)
Menshutina Natalia: PharmaceuticalWedPM309
Mentbayeva Almagul: BatteryWedPM205
Merchant Carolyn: EnvironmentalMonPM101, EnvironmentalMonPM102
Meyer Naldo J.A.: CarbonWedPM103, CarbonWedPM104
Meyers Marc: CompositeMonPM102, CompositeMonPM205, CompositeMonPM415
Meyohas Alexandre: SummitPlenaryTuePM205
Micari Fabrizio: EnergyTuePM414
Michalakis Ioannis: MineralMonPM205
Michalek Martin: GlassWedPM102
Michalkova Monika: GlassWedPM102
Michl Josef: Electrochemistry Session (Poster)
Mikalajunas Mike: MathematicsMonPM103, MathematicsTuePM205, MathematicsTuePM206
Mikhailova Lyudmila: IronMonPM311
Milewski Jaroslaw: EnergyTuePM413
Milkidou Athanasia: Mineral Session (Poster)
Miranda Soares Edson: Composite Session (Poster)
Mishina Olga: NonferrousTuePM310
Mishra Amit: SISAMWedPM205
Mishra Bignaraj: MineralWedPM103
Mitovski Aleksandra: NonferrousTuePM310
Mohanty Bhabesh Kumar: IronMonPM414

Mohite Aditya: SolidStateChemistryTuePM104
Molenda Janina: BatteryWedPM207
Molla Rahamatulla: AdvancedMaterialsWedPM103
Monastyrov Mykola: AdvancedMaterialsTuePM102
Mondal Ajay: AdvancedMaterialsWedPM103
Mondal Dehi: AdvancedMaterialsTuePM103
Monteiro Sergio: CompositeMonPM104, CompositeMonPM206,
CompositeMonPM207, CompositeMonPM312, CompositeMonPM309,
CompositeMonPM310, CompositeMonPM311, CompositeMonPM208,
CompositeMonPM102, CompositeMonPM414, CompositeMonPM205,
CompositeMonPM415, CompositeMonPM101, Composite Session (Poster)
Moon Flora: EnergyTuePM311
Moreira Daysiane: Composite Session (Poster)
Mori Takao: SolidStateChemistryMonPM104
Moshchil Viktor: AdvancedMaterialsWedPM205, AdvancedMaterialsTuePM102,
AdvancedMaterialsTuePM309
Mothé Michelle: Composite Session (Poster)
Moulay Mohamed Said: MathematicsMonPM104
Moździerz Maciej: AdvancedMaterialsWedPM207
Muñiz Sierra Héctor: MineralMonPM208
Murta Jorge: LawsWedPM206, LawsWedPM205
Murugan Sethupathi: RecyclingMonPM312
Muzamil Gani Khalid: ConstructionTuePM415

N

Nagavci Arbërie: SummitPlenaryTuePM101
Nakamura Akari: OxidativeTuePM102
Navrotsky Alexandra: GeochemistryMonPM102, GeochemistryMonPM103,
GeochemistryMonPM205
Nekrasov Grigory: Mathematics Session (Poster)
Nelson Donna: SummitPlenaryTuePM309
Neuba Lucas: CompositeMonPM415, Composite Session (Poster)
Nguyen Thi Kim Oanh: OxidativeMonPM104
Nikolaeva Nadezhda: MineralWedPM416
Nikolić Vladimir: Mineral Session (Poster)
Nlebedim Ikenna: RecyclingMonPM415
Nobuyasu Luiza: RecyclingMonPM414
Novohatskyi Mykola: AdvancedMaterialsTuePM102
Novoselov Konstantin: SummitPlenaryWedPM206
Novoselova Inessa: Molten Session (Poster)
Nurpeissova Arailym: AdvancedMaterials Session (Poster)

O

O'Bannon Earl: GeochemistryMonPM207
Obradors Xavier: AdvancedMaterialsWedPM205
Oktik Sener: GlassMonPM310, GlassMonPM311, GlassMonPM312
Oliveira Andriela: MineralWedPM312
Oliveira Gustavo: Composite Session (Poster)
Oliveira Michel Picanço: CompositeMonPM208, Composite Session (Poster)
Omel'chuk Anatoliy: Molten Session (Poster)
Oosterhof Claudia: NonferrousTuePM101
Oppermann João: MineralWedPM205
Ord Garnet: MathematicsMonPM102
Osmeni Alda: EnvironmentalMonPM103
Ostash Orest: AdvancedMaterialsTuePM205
Otis Louise: SummitPlenaryMonPM207

P

Pal Singh Devinder: MoltenTuePM207
Palavos-Chesper Vangelis: NonferrousTuePM207
Palosz Bogdan: PhysicalTuePM102
Papadimitriou Georgios: Mineral Session (Poster)
Papadomarkakis Dimitrios: MineralMonPM310
Papaefthymiou Spyros: MineralMonPM206
Paraskevis Nikolaos: MineralWedPM413
Park Vinicius: RecyclingMonPM414, RecyclingMonPM413
Paspaliaris Ioannis: MineralWedPM206
Patil Ajay: NonferrousTuePM208, NonferrousTuePM312
Patil Dhanraj: IronMonPM415
Pavloudakis Francis: MineralWedPM413
Pačes Oldřich: Electrochemistry Session (Poster)
Pačes Ondřej: Electrochemistry Session (Poster)
Pei Ying: RecyclingMonPM311
Pelli Afonso: Composite Session (Poster)
Peng Xiaodong: MagnesiumTuePM416
Peppas Antonis: MineralMonPM310
Pessoa Do Império Borges Grazielle: IronMonPM312
Petropoulou Ioanna: MineralMonPM310
Petrov Milan: MineralWedPM104
Petrusha Ihor: AdvancedMaterialsTuePM207
Petter Carlos: MineralWedPM205, MineralWedPM208
Petter Renato: MineralWedPM205, MineralWedPM208
Pinheiro Upiragibe: MineralWedPM205
Pinto Thayane: CompositeMonPM416
Pippan Reinhard: SISAMTuePM309, SISAMTuePM310
Plitzko Matthias: PharmaceuticalWedPM103
Plutta Niklas: SISAMTuePM309, SISAMTuePM310
Podhurska Viktoriya: AdvancedMaterialsTuePM205

Podmiljsak Benjamin: SISAMTuePM205, SISAMWedPM207
Polak Christian: SISAMTuePM309, SISAMTuePM310
Pondé Weber Ricardo: CompositeMonPM206
Ponomaryov Semyon: AdvancedMaterialsWedPM205,
AdvancedMaterialsWedPM101, AdvancedMaterialsTuePM205
Pospíšil Lubomír: Electrochemistry Session (Poster)
Potapov Alexei: Molten Session (Poster)
Prikhna Tetiana: AdvancedMaterialsWedPM205, AdvancedMaterialsWedPM101,
AdvancedMaterialsTuePM102, AdvancedMaterialsTuePM207,
AdvancedMaterialsTuePM205, AdvancedMaterialsTuePM309
Provenza Fred: PharmaceuticalTuePM416
Prysiazhna Olena: AdvancedMaterialsTuePM102
Puig Teresa: AdvancedMaterialsWedPM205

Q

Qiao Jialu: AdvancedMaterialsTuePM104
Qu Hong Ru: NonferrousTuePM311
Queen Wendy: SolidStateChemistryTuePM206
Quesada Adrian: SISAMTuePM205
Quochi Francesco: SolidStateChemistryTuePM310

R

Radulovic Dragan: MineralWedPM104
Ramasamy Parthiban: SISAMTuePM309, SISAMTuePM310
Ramm Alexander: MathematicsWedPM413, MathematicsWedPM414
Rane-Fondacaro Manisha: EnergyWedPM101
Rangacharyulu Chary: EnergyWedPM103
Rangel Garcez De Azevedo Afonso: CompositeMonPM104
Rebernik Mihaela: SISAMWedPM205
Recksiek Volker: NonferrousTuePM208, NonferrousTuePM312
Reis Lucas: Composite Session (Poster)
Reis Orimar: IronTuePM104
Reiter Russel: OxidativeTuePM206
Rellinghaus Bernd: SISAMTuePM413, SISAMTuePM414
Renno Axel: NonferrousTuePM312
Reyes-Moreno Giovanni: BiocharTuePM206
Ribeiro Marcia: Agroforestry Session (Poster)
Richter Andreas: NonferrousTuePM415
Rizaj Musa: Energy Session (Poster)
Rocco Lahr Francisco Antonio: CompositeMonPM104
Rodrigues Chaves Wanderson Geraldo: Composite Session (Poster)
Rogoll Clemens: MineralMonPM415

Romagnolo Berin: LawsMonPM309
Romanenko Yaroslav: AdvancedMaterialsTuePM207
Romero Junnile: NonferrousTuePM208, NonferrousTuePM312
Roos Christian: GlassMonPM414
Ross Nancy: GeochemistryMonPM101
Roumpos Christos: MineralWedPM413
Rowlands Peter: MathematicsMonPM101
Rrecaj Arlinda: AdvancedMaterials Session (Poster)
Rrecaj Besfort: LawsTuePM206
Rubin Harvey: PharmaceuticalTuePM415
Rumyantsev Denis V.: NonferrousTuePM310
Ryckelynck David: GlassWedPM205

S

Saida Junji: PhysicalWedPM101
Saje Boris: SISAMTuePM205
Sajid Ali: AdvancedMaterialsWedPM310
Sajti Laszlo: SISAMTuePM309, SISAMTuePM310
Sakellariou Lefkothea: MineralWedPM206
Salazar Montero Daniel Ricardo: PharmaceuticalWedPM104
Saleem Ailyan: PhysicalWedPM205
Salyulev Alexander: Molten Session (Poster)
Samardzija Zoran: SISAMTuePM205
Samouhos Michail: MineralWedPM206
Sampaio Da Silva Fernanda A: AdvancedMaterialsTuePM414, SISAMTuePM415
Sangesland Sigbjørn: AdvancedMaterialsTuePM206
Santos Davi: IronMonPM312
Sargoytchev Stoyan Sarg: MathematicsMonPM208
Sarsengaliyeva Aizhuz: AdvancedMaterials Session (Poster)
Satbaev Baimakhan: Recycling Session (Poster)
Satbaev Serik: Recycling Session (Poster)
Sato Yuki: OxidativeMonPM208, OxidativeTuePM103, OxidativeTuePM205
Satoh Hiroshi: OxidativeMonPM207
Savinova Yulia A.: NonferrousTuePM310
Søiland Anne-Karin: SolidStateChemistryMonPM206
Scarpini Candido Verônica: Composite Session (Poster)
Schaefer Rudolf: SISAMMonPM103, SISAMMonPM104
Schafler Erhard: SISAMTuePM309, SISAMTuePM310
Schönherr Paul: NonferrousTuePM206
Schieren Laurence: SISAMWedPM205
Schultz Ludwig: SISAMMonPM101, SISAMMonPM102
Schwarz Udo: SISAMTuePM208, SISAMMonPM207
Schwarzer Julius: PharmaceuticalMonPM207
Schwarzer Norbert: PharmaceuticalMonPM207, PharmaceuticalMonPM208
Semenza Gregg L.: SummitPlenaryMonPM102

Semsari Parapari Sorour: SISAMWedPM205, SISAMTuePM311, SISAMTuePM312
Sequeira César A C: MineralWedPM102
Serakinci Nedime: OxidativeTuePM207
Serbeniuk Tetiana: AdvancedMaterialsWedPM101, AdvancedMaterialsTuePM205
Servou Aikaterini: MineralWedPM413
Seshadri Ram: SolidStateChemistryTuePM103
Shah Mohammad Yousuf: ConstructionTuePM415
Shalabaev Nurgali: Recycling Session (Poster)
Sharma Ramaswamy: OxidativeTuePM206
Shaternik Anton: AdvancedMaterialsWedPM205
Shechtman Dan: SummitPlenaryTuePM206
Shlemov Yuriy: NonferrousTuePM310
Shpuza Bora: SummitPlenaryTuePM101
Shtefan Viktoriia: AdvancedMaterialsTuePM205
Shvetcov Daniil: Iron Session (Poster)
Shynybekov Ernar: AdvancedMaterialsWedPM208
Silva Douglas: CompositeMonPM207
Silva Leonardo Martins Nazário: CompositeMonPM208
Simpson Keith: PharmaceuticalTuePM104
Simurka Peter: GlassMonPM413
Singh Deependra: MineralWedPM103
Sinha Akhouri: AdvancedMaterialsTuePM103
Sivaramkrishnan S.: BiocharTuePM207
Slack Frank J.: SummitPlenaryMonPM205
Smetannikov Artem: IronMonPM311
Soares Ana Paula: Composite Session (Poster)
Soares Yago: Composite Session (Poster)
Soares Araujo Gislaïne: Composite Session (Poster)
Soares Leite Araujo Brian: Composite Session (Poster)
Sobral Luis: MineralWedPM312
Sokhanvaran Samira: BatteryWedPM208
Sokic Miroslav: NonferrousTuePM310
Soltabayev Baktiyar: Physical Session (Poster)
Spanidis Philip-Mark: MineralWedPM413
Spieckermann Florian: SISAMTuePM309, SISAMTuePM310
Srinivasan Anandakumar: AdvancedMaterialsWedPM309
Steinlechner Stefan: NonferrousTuePM102, NonferrousTuePM103
Stelzer Michael: NonferrousTuePM205, NonferrousTuePM207
Stojakovic Andrea: OxidativeMonPM104
Stratiychuk Denys: AdvancedMaterialsTuePM207
Strbac Nada: NonferrousTuePM310
Strydom Christien: CarbonWedPM103, CarbonWedPM104
Sturm Saso: SISAMWedPM205, SISAMWedPM309, SISAMTuePM311, SISAMTuePM312, SISAMWedPM310
Subba Rao Inimella Venkata: Iron Session (Poster)
Subramani Tamilarasan: GeochemistryMonPM103, GeochemistryMonPM205
Sugiyama Kumiko: OxidativeMonPM207
Sugiyama Yoichiro: OxidativeMonPM208, OxidativeMonPM103, OxidativeMonPM414,

OxidativeTuePM103, OxidativeTuePM205
Suhanova Olga: NonferrousTuePM310
Sulkowski Bartosz: SISAMTuePM309, SISAMTuePM310
Sultanov Fail: BatteryWedPM205
Sumino Hiroshika: GeochemistryMonPM207
Sun Wei: MineralMonPM311
Sverdun Vladimir: AdvancedMaterialsTuePM205
Sverdun Volodymyr: AdvancedMaterialsWedPM101
Swierczek Konrad: AdvancedMaterialsWedPM104, AdvancedMaterialsWedPM207, AdvancedMaterialsTuePM312
Szydło Andrzej: SummitPlenaryTuePM208
Szytuła Andrzej: PhysicalTuePM104

T

Tampouris Stylianos: MineralMonPM415
Tan Sarah Ming Hwee: BiocharTuePM101
Tang Keyong: RecyclingMonPM206
Tang Keyong: AdvancedMaterialsTuePM104, RecyclingMonPM309, GlassMonPM415
Tangirbergen Abylay: Physical Session (Poster)
Tarabishi Hassan: PharmaceuticalTuePM102, PharmaceuticalTuePM310
Tarabishi Hiba: PharmaceuticalWedPM310
Tasiopoulos Anastasios: SolidStateChemistryTuePM207
Tatykayev Batukhan: AdvancedMaterials Session (Poster)
Tavares Sheron S.: CompositeMonPM415
Tavernarakis Nektarios: SummitPlenaryWedPM103
Taxiarhou Maria: MineralMonPM207, MineralWedPM206
Teichert Christian: SISAMWedPM311
Tenne Reshef: SolidStateChemistryTuePM102
Teo Junhao Jeremy: ConstructionTuePM311
Teramoto Shinto: LawsMonPM104
Teshima Katsuya: AdvancedMaterialsWedPM206
Thiere Alexandra: NonferrousTuePM309
Todorovic Dejan: MineralWedPM104
Tomše Tomaž: SISAMWedPM205, SISAMWedPM309, SISAMTuePM205, SISAMTuePM311, SISAMTuePM312, SISAMWedPM310
Tonima Tahsin Kamal: LawsWedPM415
Topalle Bhaskar: IronMonPM310
Tora Barbara: MineralWedPM415
Tora Maciej: MineralWedPM415
Torday John: MathematicsTuePM207, MathematicsTuePM208
Towhid Md. Mahmudul Hasan: LawsTuePM208
Trell Erik: MathematicsTuePM101
Tressaud Alain: SolidStateChemistryMonPM208
Trikalitis Pantelis: SolidStateChemistryWedPM310
Trumić Maja S.: Mineral Session (Poster)

Trumić Milan: Mineral Session (Poster)
Trushin Sergey: OxidativeMonPM104
Trushina Eugenia: OxidativeMonPM104
Tsakiri Dana: MineralWedPM206
Tsepelev Vladimir: Iron Session (Poster)
Tsimbalist Michael: IronMonPM206
Tsverava Davit: AdvancedMaterialsTuePM31 1
Turkevych Volodymyr: AdvancedMaterialsTuePM207
Turlybekuly Amanzhol: AdvancedMaterialsWedPM208
Tzeferis Peter: MineralMonPM103

U

Ukleba Ketevan: Composite Session (Poster)
Ullah Aman: GlassWedPM103
Upmanyu Arun: GlassWedPM206
Upolovnikova Alena: IronMonPM309, IronMonPM31 1
Upreti Shailesh: BatteryWedPM206
Urbanová Veronika: Electrochemistry Session (Poster)
Uwaoma Roman: CarbonWedPM103, CarbonWedPM104
Učakar Aleksander: SISAMonPM206

V

Vaisanen Ari: NonferrousTuePM208
Vamvasakis Ioannis: SolidStateChemistryWedPM311
Varga Katarina: Electrochemistry Session (Poster)
Vargova Veronika: GlassMonPM413
Vasilev Krasimir: MedicineWedPM103
Vavrek František: Electrochemistry Session (Poster)
Vihahsini Shrinithi: BiocharTuePM207
Viscusi Gianluca: BiocharTuePM102
Viswamsetty Lakshmi Kanth: NonferrousTuePM208
Vitkina Galina: IronMonPM205, IronMonPM206
Vlad Roxana: AdvancedMaterialsWedPM205
Vogt Daniel: NonferrousTuePM414
Voigt Albrecht: NonferrousTuePM415
Von Tschärner Vinzenz: PharmaceuticalTuePM103
Vovkotrub Emma: SolidStateChemistry Session (Poster)
Vovkotrub Emma: SolidStateChemistry Session (Poster)
Vrabel Peter: GlassMonPM413

W

Wang Fang: RecyclingMonPM207
Wang Yue: Nonferrous Session (Poster)
Wang Yuting: Mineral Session (Poster)
Watson James: MathematicsMonPM206, MathematicsMonPM207
Würtenberger Sandra: PharmaceuticalWedPM102
Wiese Ettiene: CarbonWedPM103, CarbonWedPM104
Wimmer Xenia: NonferrousTuePM103
Winkler Albert: PharmaceuticalWedPM311
Wisniewski Carlos: MineralWedPM312
Witt Kerrin: NonferrousTuePM102
Wolverton Christopher: SolidStateChemistryTuePM208
Woo Seongwoo: AdvancedMaterialsWedPM102
Woźniak Krzysztof: PhysicalTuePM103
Wrzałko Daniel: PharmaceuticalWedPM102
Wu Kaiming: Iron Session (Poster)
Wu Li-Ming: SolidStateChemistryTuePM413
Wurmehl Sabine: AdvancedMaterialsWedPM205
Wuthrich Kurt: SummitPlenaryWedPM309

X

Xavier Gustavo: Composite Session (Poster)
Xiao Huining: BiocharTuePM103
Xu Xuan: SISAMWedPM205
Xue Nannan: NonferrousTuePM311, GlassMonPM416, MineralWedPM101, Mineral Session (Poster)

Y

Yaffe Omer: SolidStateChemistryMonPM207
Yang Fuhua: OxidativeMonPM208, OxidativeTuePM101, OxidativeMonPM310, OxidativeMonPM311, OxidativeMonPM205, OxidativeMonPM413, OxidativeMonPM102, OxidativeMonPM103, OxidativeMonPM414, OxidativeTuePM102, OxidativeMonPM309, OxidativeTuePM104, OxidativeTuePM205
Yang Peixia: Molten Session (Poster)
Yang Yan: MagnesiumTuePM415
Yarman Ozan: MathematicsWedPM310
Yarman Tolga: MathematicsWedPM310
Yefremova Svetlana: Recycling Session (Poster)
Yergaliuly Gani: Physical Session (Poster)
Yermishin Sergey: Recycling Session (Poster)

Yeskozha Dossym: AdvancedMaterials Session (Poster)
Yiouta-Mitra Paraskevi: MineralWedPM310
Yili Arjana: EnvironmentalMonPM103
Yili Fatos: EnvironmentalMonPM103
Yoshikawa Toshikazu: OxidativeMonPM208, OxidativeMonPM103,
OxidativeMonPM414, OxidativeTuePM102, OxidativeMonPM309, OxidativeTuePM103,
OxidativeTuePM205

Z

Zagorodnii Volodymyr: AdvancedMaterialsWedPM101
Zehetbauer Michael J.: SISAMTuePM309, SISAMTuePM310
Zestos Alexander: AdvancedMaterialsWedPM311
Zhan Pengfei: AdvancedMaterials Session (Poster)
Zhanaikhan Aisha: AdvancedMaterials Session (Poster)
Zhang Mingrui: RecyclingMonPM310
Zhang Shipeng: ConstructionTuePM413
Zhang Yimin: ConstructionTuePM312, NonferrousTuePM311, GlassMonPM416,
MineralWedPM101, Mineral Session (Poster)
Zhang Zhifeng: MineralMonPM311
Zharmenov Abdurassul: Recycling Session (Poster)
Zheng Qiushi: MineralWedPM101, Mineral Session (Poster)
Zheng Xuejing: AdvancedMaterialsTuePM208
Zhu Xuguang: SISAMTuePM101, SISAMTuePM102
Zhukov Arcady: SISAMMonPM205, SISAMTuePM206
Zhukova Valentina: SISAMMonPM205, SISAMTuePM206
Zolotykh Maxim: IronMonPM205
Zuzek Kristina: SISAMWedPM205, SISAMWedPM309, SISAMTuePM311,
SISAMWedPM207, SISAMTuePM312, SISAMWedPM310

Co-Organizers and Sponsors Section

Government/Public Organizations



ΠΕΡΙΦΕΡΕΙΑ ΚΡΗΤΗΣ
REGION OF CRETE



Fundação
GORCEIX



Corporations



Professional Societies



American Chemical Society



ITNMS



Institute for Technology of Nuclear and Other Mineral Raw Materials, Belgrade, Serbia



Mining Institute Ltd. Belgrade



**GREEK
MINING
ENTERPRISES
ASSOCIATION**



Partner Conferences



XVI International Mineral Processing and Recycling Conference (IMPRC)

Academic Institutions



National Technical University of Athens



Academy of Engineering Sciences of Serbia (AESS)



**UNIVERSITY OF
MINING AND GEOLOGY
"ST. IVAN RILSKI"**

Media



sustainability

an Open Access Journal by MDPI



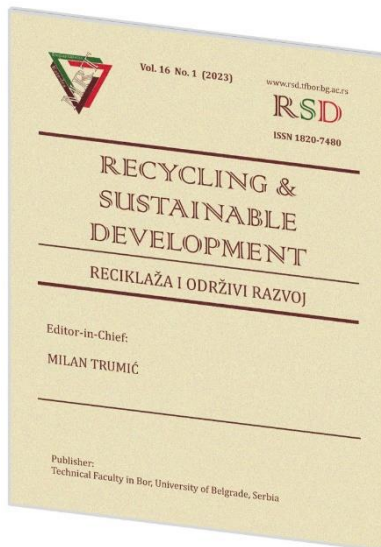
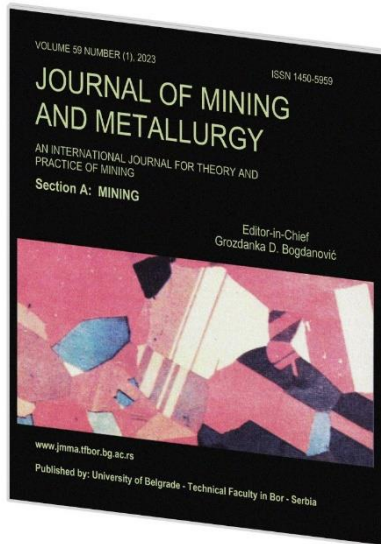


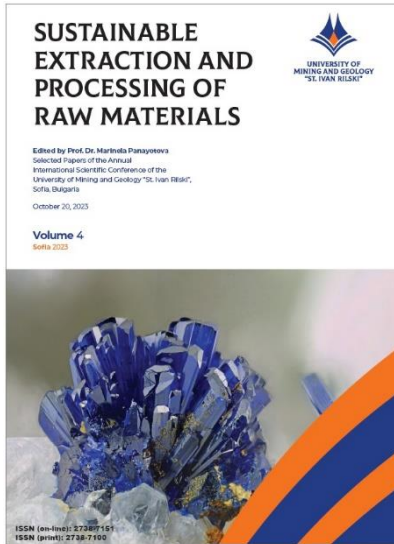
INTERNATIONAL CONFERENCE ALERTS

Journals and Publishers



ELSEVIER





JMA

Journal of Magnesium and Alloys

Travel Companies



AIRFRANCE   **KLM**  
Global Meetings & Events

IBERIA 



CATHAY PACIFIC

Austrian 



Lufthansa



brussels 
AIRLINES

Eurowings 



UNITED 


Emirates

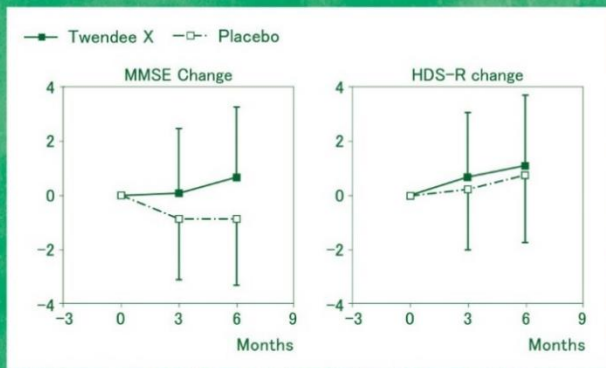


The U.S. Office of Naval Research Global (ONR Global) provides worldwide science & technology (S&T)-based solutions for current and future naval challenges. Leveraging the expertise of more than 50 scientists, technologists and engineers, ONR Global maintains a physical presence on five continents. The command reaches out to the broad global technical community and the operational fleet/force commands to foster cooperation in areas of mutual interest and to bring the full range of possibilities to the Navy and Marine Corps.

Shortly after ONR was founded in 1946, the command assumed the responsibility of the wartime-era's Office of Scientific Research and Development liaison office in London. It aimed to identify promising research opportunities in Europe and the Middle East. By 1977, the ONR's European and Tokyo offices had combined to form the international field office with a single, Department of the Navy-wide, international S&T strategy for fostering international collaboration. ONR Global has increased its presence and expanded its cooperative activities with offices in Singapore, Tokyo, Santiago, Prague, Sao Paulo, Melbourne, and most recently with sponsorship of the London Tech Bridge, which opened in 2021.

Official website of ONRG: <https://cz.usembassy.gov/>

Dementia Prevention



MMSE : Significant Difference * $p < 0.05$ (vs Placebo)

HDS-R : Significant Difference # $p < 0.05$ (vs Start point)

Clinical Benefits of Antioxidative Supplement Twendee X for Mild Cognitive Impairment: A Multicenter, Randomized, Double-Blind, and Placebo-Controlled Prospective Interventional Study. J Alzheimers Dis. 2019 Aug 24. doi: 10.3233/JAD-190644

Twendee® is a novel composition consists following 8 ingredients Vitamin C, L-Glutamine, Niacin, L-Cystine or L-Cysteine, Riboflavin, Coenzyme Q10, Fumaric acid, and Succinic acid. Patent: Composition for protection against cell-damaging effects WO2013/072441 A1

Visit inventor: <https://www.prof-inufusa.com/>

Press Conference on 24th Sep. 2019: <https://youtu.be/8D6I8hcCBMU>

Inquiry: kosanka@antioxidativeres.jp

World First Dementia Prevention
Twendee X





ΠΕΡΙΦΕΡΕΙΑ ΚΡΗΤΗΣ

REGION OF CRETE

The Region of Crete is one of the 13 regions of Greece. It includes the island of Crete and smaller islands such as Gavdos, Gavdopoula, Dia, Chrysi, Koufonissi and the Dionsades islands.

Crete is the largest and most populous island of Greece and the fifth largest in area in the Mediterranean, after Sicily, Sardinia, Cyprus and Corsica. The Region includes four (4) regional units, Heraklion, Lasithi, Rethymno and Chania, occupies a total area of 8,303 km² with a coastline of 1,046 km and a maximum altitude of 2,456 m at the top of Psiloritis.

Its capital and largest city is Heraklion, which is the seat of the Region of Crete. With a population of 623,065 inhabitants, approximately 160 kilometers south of the Greek mainland and stretching from west to east, it is washed by the Cretan Sea to the north and the Libyan Sea to the south. It is an important part of the economy and cultural heritage of Greece, preserving its own cultural elements. During the years 3000 BC–1400 BC the Minoan civilization flourished on the island, one of the first civilizations in Europe, with its main centers in Knossos, Phaistos, Malia, Zakros and Gournia where palace complexes were found. The Orthodox Church of Crete is semi-autonomous, consisting of the Archdiocese of Crete and eight Metropolises and is dependent on the Ecumenical Patriarchate of Constantinople.

Crete is the largest island in Greece and the second largest in the eastern Mediterranean after Cyprus. It is located at the southern end of the Aegean Sea and covers an area of 8,336 km². Its permanent population is 623,065 inhabitants, while the actual, de facto, is 682,928 according to the 2011 census. It is approximately 260 kilometers long and varies in width from a maximum of 60 kilometers, from Cape Dion to Cape Lithino, to a minimum of 12 kilometers on the isthmus of Ierapetra in eastern Crete.

Official website of the Region of Crete: <https://www.crete.gov.gr/>



JOIN US

**BECAUSE
PEOPLE LIKE YOU
CREATE GREAT
CHEMISTRY.**

You belong here.



ACS
Chemistry for Life®

AMERICAN CHEMICAL SOCIETY



ELSEVIER

Covering major developments in the field of **solid state chemistry** and related areas such as **ceramics** and **amorphous materials**, the *Journal of Solid State Chemistry* features studies of chemical, structural, thermodynamic, electronic, magnetic, and optical properties and processes in solids.

Research Areas include:

- Bonding in solids
- Crystal chemistry
- Crystal growth mechanisms
- Synthesis of new compounds
- Materials Chemistry
- High-pressure processes
- Magnetic properties of materials
- Optical characterization of materials
- Order-disorder
- Phase equilibria and transformation mechanisms
- Reactions at surfaces
- Statistical mechanics of defect interactions
- Structural studies
- Transport phenomena

Official website of the Journal of Solid State Chemistry:
<https://www.sciencedirect.com/journal/journal-of-solid-state-chemistry>

EVOLVING A CENTURIES-OLD MINING TRADITION



www.hellas-gold.com

We source the essential metals that are fundamental to progress.

We do this in unity and partnership with our stakeholders.

Enabling mutual prosperity to flourish and delivering a long-term Kassandra Mines legacy that is beneficial for all.

 **Hellas GOLD**
IN UNITY WE PROSPER

ISSN 2213-9567
CN 50-1220/TF

JMA

Journal of Magnesium and Alloys



B. J. Lv, S. Wang ... F. Guo
J. Magnes. Alloy. 12(4), 2024



National Engineering Research Center for Magnesium Alloys
<http://cemg.cqu.edu.cn>

Volume 12 Issue 4
April 2024

European Metallurgical Conference
Emc 2025



European Metallurgical Conference

22 -25
JUNE, 2025

Hamburg, Germany

DEVELOPING NEXT - GENERATION METALLURGICAL PROCESSES

Sustainability Decarbonization Circularity Digitalization





WORLDWIDE PROJECTS AND EXPERIENCE



FLOGEN® Technologies Inc.
Your Partner in Technology and Business Development

The Next Generation of Process Control & Automation:

- Iron & Steel
- Non-Ferrous Metals
- Precious Metals
- Materials Recycling

Increase Productivity - Decrease Cost - Protect Environment

www.flogen.com • secretary@flogen.com • 1-514-344-8786 • 1-877-2-FLOGEN