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**MARQUIS
INTERNATIONAL
SYMPOSIUM**

on New and Advanced
Materials and Technologies

CURRICULUM VITAE

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1 Education

B. S. Chem. Eng., University. of Coimbra
Dipl. Eng. Chemical/Industrial Eng., Instituto Superior Tecnico, Univ.of Lisbon
Dipl. Imper. College Metallurgical Eng., Imperial College of Science Technology and
Medicine, University of London
Ph.D. Metallurgical Eng., Imperial College of Science, Technology and
Medicine, University of London
Ph.D. Metallurgy and Materials Science, Univ. of Lisbon
Chartered Eng. Council of Engineering Institutions, United Kingdom

2. Professional & Academic Experience

Adjunct Professor, Department of Mechanical Engineering, San Diego State University
Research Professor, Department of Systems Engineering and Wayne Meyer Institute of Systems
Engineering, Naval Postgraduate School (NPS)
Visiting Professor, Dept. of Mechanical and Astronautical Engineering at Naval Postgraduate
School (NPS)
Professor of Materials and Metallurgical Engineering, South Dakota School of Mines and
Technology (SDSMT)
Visiting Professor, Dept. of Applied Mechanics and Engineering Science, University of
California, San Diego (UCSD)
Tenured Associate Professor of Materials and Metallurgical Engineering, SDSMT
Visiting Professor, Titanium Metals Corporation of America (TIMET), Nevada
Tenure Track Associate Professor of Metallurgical Engineering, SDSMT
Visiting Professor and Associate Scientist, Department of Mechanical & Aerospace Engineering,
University of Delaware (UD)
Associate Professor and Head, Metallurgy and Materials Science Division, Faculty of Engineering,
University of Minho (UM)
Auxiliar Professor and Head, Metallurgy and Materials Science Division, University of Minho

Lecturer, Faculty of Engineering, University of Minho
Director of the Metallurgical Science Laboratory, (Physical Metallurgy), University of Minho
Vice-President, Center for Research on the Science and Technology of Materials (CCTM),
University of Minho.
Vice-President, Engineering Council, University of Minho.
Academic Visitor, Metallurgy and Materials Science Department, Imperial College of Science
and Technology, University of London, England
Member, Corrosion Group of the Portuguese National Institute for Industrial Research
Lecturer, Instituto Superior Tecnico (IST), University of Lisbon, Portugal
Research Assistant, Kjemisk Institutt, University of Oslo, Blindern, Norway
Research Assistant, Metallurgy Dept., Atomic Energy Establishment, Riso, Denmark
Assistant Lecturer for General Chemistry, University of Coimbra, Portugal
Assistant Lecturer for Inorganic Chemistry, University of Coimbra, Portugal

3. Current Research Interests & Experience

1. Transformative Materials, Energy Systems, Renewable and Alternative Energy, Sustainable Development.
2. Nanomaterials (nanocomposites, nanosensors, nanofluids, nanolubricants),
3. Nanotechnology, Nanosystems, Nanotribology.
4. Nanoenergetics, Shock Synthesis, Combustion Synthesis and Densification of Ceramics, Composites and Intermetallics.
5. Microstructural Design and Manufacture of Materials and Material Systems.
6. Thermal Management Systems for High Energy Applications and DEWs
7. Development of Multiphase Materials and Materials Systems.
8. Analytical Electron Microscopy and Forensics.
9. High-Strain, High-Strain Rate Deformation Behavior of Ta and Ta-W Based Alloys.
10. Failure Analysis and Mechanisms in Structural Components.
11. Solid State Ionics, Solid State Energy Devices and Systems
12. Airplane and Aerospace Materials and Structures.

4. Awards and Special Recognition

Best Student University of Coimbra, 1967, Special Prize to attend Youth Science Science Fortnight, London England 1967, Fellow of the Royal Microscopical Society, United Kingdom, 1977; Editorial Advisory Board, Portugaliae Physica, 1978-1986; Chartered Engineer, Council of Engineering Institutions, 1979, UK; Professional Chemical Engineer, Portugal, 1979; Professional Metallurgical Engineer, Portugal, 1979; Member of the Board of Governors of the International Congress on Mechanical Behavior of Materials, 1979-1981; Who's Who in Engineering; Biography International; Outstanding Award for Service, as Organizer of the International Symposium on "In Situ Reactions for Synthesis of Composites, Ceramics and Intermetallics", TMS, 1995; Special Recognition from Entrepreneurs of America, 1998; Governor of South Dakota Faculty Award for Teaching with Technology, 1999; Outstanding Award for Service, as Primary Organizer of the International Symposium on "Powder Materials: Current Research and Industrial Practices", TMS, 1999; Materials Design and Manufacturing Division of TMS, for Exemplary Service to the Division as Chairman of the Powder Materials Committee, 2001; Outstanding Award for Service as Primary Organizer of the International Symposium on "Powder Materials: Current Research and Industrial Practices II", TMS, 2001;

Outstanding Award for Service as Primary Organizer of the International Symposium on “Rapid Prototyping of Materials”, TMS, 2002; Outstanding Award for Service, as the Organizer of the International Symposium on Powder Materials: Current Research and Industrial Practices III”, TMS, 2003; Exemplary Service as Treasurer of the TMS “Materials Processing and Manufacturing Division” (2004); Programming Representative for the “Materials Processing and Manufacturing Division”, TMS/ASM 2004-2006; Research Director “United Nanotechnologies”, 2005-2006; Outstanding Award for Service , as Organizer of the Symposium on “Science and Technology of Powder Materials: Synthesis, Consolidation and Properties”, Materials Science and Technology, 2005; Fellow American Society for Metals, 2006; Award as Programming Representative, Materials Processing and Manufacturing Division, TMS 2007, Board of Trustees Alpha Sigma Mu, 2006-2014. Member Euro Mediterranean Academy of Arts and Sciences.

5. Professional Registrations

Metallurgical Engineering (1979), Chemical Engineering (1979), Chartered Engineer, Council of Engineering Institutions, United Kingdom (1979), Member Euro Mediterranean Academy of Arts and Sciences.