

CURRICULUM VITAE

CHARITIDIS CONSTANTINOS

Professor, Dr

Nanoengineering & Nanotechnology

School of Chemical Engineering

National Technical University of Athens (NTUA)



Personal Details :

Surname	CHARITIDIS
First name	CONSTANTINOS
Affiliation and official address	Professor, Dr, NTUA Ethics Committee Representative School of Chemical Engineering 9 Heron Polytechniou St., Zographos, Athens, Greece GR-157 73
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E-mail	charitidis@chemeng.ntua.gr
Date and place of birth	30/03/1966 - Greece
Nationality	Greek
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Scientific – Technical expertise:

- **Materials Sciences & Nanotechnologies, Nanomaterials processing (Synthesis and Deposition), Microstructure - Property Relationship, Multifunctional materials.**

Carbon based materials & structures (carbon fibers, carbon nanotubes, graphene, a-C, DLC, ...), Structural and Nanomechanical Properties of bulk-thin film-multifunctional materials, Tribology, Contact Mechanics, Adhesion, Fracture and Fatigue of Engineering Materials, Microelectromechanical Systems (MEMS), Vacuum Science & Technology, Solid State Physics.

Ceramic materials & powders, Composite Materials, Metals, Semiconductors, Renewable materials, Polymeric materials, Quantum dots. Substitution of Critical Raw Materials, Innovative routes for the production of advanced/ductile Fe-Al based intermetallics.

Atomic level processes and growth mechanisms of thin films and coatings, Surface and interface properties, Surface Engineering, Modeling of Mechanical behavior of thin films and devices.

- **Sustainable Industrial Processes, Pilot lines (scale-up)** to enable commercial manufacturing of Key Enabling Technologies (KETs). **Antifouling technologies**, Superhydrophobic surfaces, Natural Biocides, Nanocomposite coatings (CNTs, nanocontainers), Fouling release coatings based on PDMS, Anticorrosive coatings, Copper-free technologies, Low-cost eco-friendly water-based antifouling, Life Cycle Analysis for maritime industry, End-of-life treatment for antifouling coatings. **Additive Manufacturing (AM) Technologies**, Nanotechnologies & Advanced Materials for AM, Functional, Structural and Nanomechanical Properties of 3D Printed Specimens, Non-Destructive Characterisation of 3D Printed Structures via Microcomputed Tomography (microCT), AM Process Control and Optimisation, Composite and Nanocomposite Thermoplastic Materials for Fused

Filament Fabrication (FFF), Pressure-Assisted Direct Ink Writing (DIW) of Hybrid Nanostructured Biomaterials.

- **Social & Safety impacts of Nanotechnology and risk assessment**, Forecasting, technological assessment, sustainability studies in nanotechnology, Research Integrity, Nanosafety: Regulatory issues on nanomaterials.

Recent research interests:

- Nanomechanical characterization of nanocomposites for bioapplications (prosthetics, tissues engineering) and nanostructures:
 - Development of proper experimental protocols for the measurement of nanomechanical properties of soft materials and mathematical models (viscoelastic/ time-dependent behavior).
 - Investigation of the interactions between the indenter tip and soft matter (electrostatic forces, hydrophilicity-hydrophobicity).
 - Effect of physical and artificial weathering on the nanomechanical properties of polymers.
- Nanomedicine: Synthesis of nanostructures & nanocontainers and investigation of their properties for bioengineering and medical applications. Nanomedicine in cancer modeling and tissue engineering

Publications and publication metrics:

Publications in International Journals	: 140
Books	: 3
Publications in Books	: 13
Citations	> 2450
<i>h-index</i>	: 31 (according google scholar)

Degrees:

1997-1998	Post Doctoral Researcher at the Laboratory for Thin Films – Nanosystems & Nanometrology (LTFN), Department of Physics, Aristotle University of Thessaloniki (AUTH), Thessaloniki, Greece
1996	M.Sc. in Physics of Materials, Department of Physics, AUTH
1995	Ph.D. in Physics, AUTH
1990	B.Sc. in Physics, AUTH

Professional Experience:

2017	Representative of School of Chemical Engineering (NTUA) in NTUA's Research Committee
2016-2018	Deanship of School of Chemical Engineering (NTUA)
2010-2016	Director of Section III: Materials Science & Engineering (NTUA)
2012-	Professor at School of Chemical Engineering (NTUA)
2006-2012	Associate Professor in School of Chemical Engineering (NTUA)
2005-2007	Associate Professor in the Department of Mechanical & Industrial Engineering at the University of Thessaly, Greece, Topic: Micro-Electro Mechanical Systems (MEMS)
2004-2005	Assistant Professor in the Department of Mechanical & Industrial Engineering at the University of Thessaly, Greece, Topic: Micro-Electro Mechanical Systems (MEMS)
2002-2006	Assistant Professor in the Technological Educational Institute (of Thessaloniki, Greece), Faculty of Technological Applications, Department of Electronics Technology and Department of Applied Sciences)

- 1999-2004 Senior Researcher at the Laboratory for Thin Films – Nanosystems & Nanometrology (LTFN), **Department of Physics**, Aristotle University of Thessaloniki (AUTH)
- 1996-1999 Research Associate, **Department of Physics** (AUTH)
- 1990-1995 Teaching/Research Assistant, **Department of Physics** (AUTH)

Teaching experience:

- 2006 - Professor and Associate Professor at School of Chemical Engineering, National Technical University of Athens (NTUA), Teaching the Courses:
- “Synthesis & Characterization of Nanomaterials & Nanostructures”,
 “Metallic Materials”,
 “Properties & Structure of Materials”,
 “Physicochemistry”,
 “Radiochemistry”.
- 2004-2007 Associate Professor in Department of Mechanical & Industrial Engineering at the University of Thessaly, Greece: Teaching the Course: “Microelectromechanical Systems (MEMS)”.
- 2002- Post Graduate (MSc) Program ‘Nanosciences & Nanotechnology’, Aristotle University of Thessaloniki:
- Responsible for technology transfer, exploitation of research results in the industry and market.
 - Teaching the Courses:
 “Nanomechanics”,
 “Technology & Innovation”,
 “Production and Technology Management”.
- 1998- Post Graduate (MSc) Program “Physics of Materials”, Aristotle University of Thessaloniki: Teaching the Courses:
 “Integrated Laboratory of Thin Film Technology”,
 “Nanomechanical properties of materials”,
 “Intellectual properties-Innovation & Technology Transfer”.

Member in the *supervision committee* of 44 **PhDs** (10 PhDs as Supervisor - 5 have been completed).
 Member in *supervision committee* of 46 **MSc** theses (26 MSc as Supervisor - 25 have been completed).
 Member in *supervision committee* of 50 **BSc** theses (29 BSc as Supervisor - 24 have been completed).

Further Academic Activity:

- 2011-Today Director of the Interdisciplinary Postgraduate (MSc) Course: Materials Science & Technology (NTUA)
- 2010-2016 Director of the Department of Materials Science and Engineering of School of Chemical Engineering (NTUA)

Awards

1. Best Poster Presentation Award for the poster: "D. Brasinika, D. Dragatogiannis, K. Basdanis, A. Tsetsekou, C.A. Charitidis, “**Development of 3D hybrid hydroxyapatite-biomolecules scaffolds and study of nanomechanical properties**” 10th Anniversary Conference of the Hellenic Society for Biomaterials, Athens 26-28 November 2015

2. Delegates Choice poster award for the poster: **“Nanoindentation testing of a chitosan-graft-poly(ϵ -caprolactone) copolymer scaffold for soft tissue engineering”** Materials Today: Virtual Conference Biomaterials, 19-21 November 2013
3. Award for the poster **“Nanomechanical properties of plasma-treated polylactic acid for packaging applications”** 7th International Congress on Modification Degradation and Stabilization of Polymers (MoDeSt), 3-6 September 2012.
4. Frost & Sullivan (ti.frost.com) award acknowledges Dr. C. Charitidis’s research excellence on:
 1. Probing the nanomechanical properties and nanoscratch behavior of anti-scratch coatings on polycarbonate lenses produced in industrial scale. June 25 2004
 2. Advanced Coatings and Surface Technology Alert: Evaluate Anti-Scratch Coatings.
5. Paper: **“Hybrid organic–inorganic multilayer coatings including nanocontainers for corrosion protection of metal alloys”** Volume 57, April 2012, Pages 56–66
I.A. Kartsonakis, A.C. Balaskas, E.P. Koumoulos, C.A. Charitidis, G.C. Kordas

8th among the 25 Hottest papers in International Journal of Corrosion Science, March 2012 to June 2012 Academic Year (ScienceDirect TOP25 Hottest Articles).(<http://www.journals.elsevier.com/corrosion-science/most-downloaded-articles/>)
6. Paper: **“Incorporation of ceramic nanocontainers into epoxy coatings for the corrosion protection of hot dip galvanized steel”** Volume 57, April 2012, Pages 30–41
I.A. Kartsonakis, A.C. Balaskas, E.P. Koumoulos, C.A. Charitidis, G.C. Kordas

6th among the 25 Hottest papers in International Journal of Corrosion Science, March 2012 - June 2012 Academic Year (ScienceDirect TOP25 Hottest Articles). (<http://www.journals.elsevier.com/corrosion-science/most-downloaded-articles/>)
7. Paper: **“Nanomechanical and nanotribological properties of carbon-based thin films: A review”** International Journal of Refractory Metals and Hard Materials, Volume 28, Issue 1, January 2010, Pages 51-70, C.A. Charitidis,

1st among the 25 Hottest papers in International Journal of Refractory Metals and Hard Materials, October - December 2009 (ScienceDirect TOP25 Hottest Articles). (<http://top25.sciencedirect.com/subject/materials-science/15/journal/international-journal-of-refractory-metals-and-hard-materials/02634368/archive/24>)
8. Paper: **“Multiscale modeling in nanomaterials science”** Materials Science and Engineering: C, E.T. Karakasidis, C.A Charitidis, volume 27, issue 5–8, September 2007, Pages 1082–1089

1st among the 25 Hottest papers in Materials Science, Materials Science and Engineering: C, April - June 2008 (**Science Direct TOP25 Hottest Articles**). (<http://top25.sciencedirect.com/subject/materials-science/15/journal/materials-science-and-engineering-c/09284931/archive/18/>).
9. Paper: **“Comparison of the nanomechanical and nanoscratch performance of antiscratch layers on organic lenses”** Surface and Coatings Technology, 180-181, 357-361 (2004), C. Charitidis et al. OMNEXUS AND SPECIALCHEM in the R&D Highlights (R&D Highlights - With R&D Highlights, we keep you abreast of what’s on the horizon for plastics. Hear about the latest patents being issued, as well as updates on ongoing research. Find out what’s happening in the lab today in order to help you in your long-term development for tomorrow).

10. Listed in Who's Who in Science and Engineering (edition 2006-2007, 2007-08, 2008-09).

Professional Services (Management/Administrative/Consultation Experience)

A. Member of Editorial Boards

Member of the Editorial Board of the Journal Lubricants

Member of the Editorial Board of Biomaterials (specialty section of Frontiers in Materials and Frontiers in Bioengineering and Biotechnology)

Member of the Editorial Board of Nanodevices in Open Access Journal Nanomaterials and Nanotechnology

Member of the Scientific Board of the Journal of the Hellenic National Bioethics Commission

Member of Editorial board of the International Journal of Nanomedicine and Nanosurgery, SCI FORSCHEN JOURNALS

Member of the Editorial Board of Manufacturing Review Journal

Member of the Editorial Committee of the Journal of Mechanical Behavior of Materials-JMBM.

Member of the scientific committee of the symposium Q entitled "Protective Coatings and Thin Films 07" held for the E-MRS Spring Meeting in Strasbourg, May 28-June 1, 2007.

B. Member of Scientific Committees/Clusters

Expert of the Committee of Humanities and Social Sciences and Committee of Natural and Technical Sciences of RCL for the Operational programme for the European Union funds investments in 2014-2020

Member of the Committee of Experts responsible for the drafting of a legal document concerning the operation of Research Ethics and Research Committees at institutional level in Greece

Member of the Hellenic Scientific Committee for Engineering & Technological Sciences - ELIDEK PhD Candidates

Member of the European Materials Characterisation Council

Leader of the Working Group "Materials and Standards" of the European NanoSafety Cluster

Member of the European Materials Modelling Council

Member of the European Carbon Fibre Technology Cluster

Member of the European Engineering and Upscaling Cluster

Member of Management Committe and National Representative in the COST Action 15102 Solutions for Critical Raw Materials Under Extreme Conditions (CRM-EXTREME)

Board Member in Hellenic Organization for Standardization (ELOT) ELOT/TC1 "Paints and Varnishes" Technical Committee

Board Member in Hellenic Organization for Standardization (ELOT) ELOT/TE102 "Sustainability of building constructions" Technical Committee

Member of the European Network of Research Ethics Committees (EUREC)

Project Technical Advisor (PTA) (2013-) of European Comision of the EU Nanosafety cluster (EC's initiative to maximize synergies between the FP7 and the H2020 projects addressing nanosafety)

Project Technical Advisor (PTA) for monitoring and evaluation of scientific & technical progress of European Commission Directorate General funded projects (2008-2012, 2012, 2013...) for nanosciences, nanotechnologies, materials and new production technologies (NMP).

Advisory Board Member of Health Technologies for Development (HTech4Dev) as part of the United Nation Millennium Development Goals, led by the Institute for Health Technologies (member of Aviesan, the French National Alliance for Life Sciences and Health).

Member of the expert team (5 members) of the European Commission to define research & industrial priorities in the field of Advanced high temperature materials for core and novel energy engineering, for SICA call between EU and EoC under the NMP-FP7 2012 work programme (participation of 5 experts from EU member states, 5 from EoC states and a EU rapporteur).

- Member** of the expert team of the European Commission for Long-term Impacts and Future Opportunities for Nanoscale Science and Engineering (group of high level experts from Europe and the US-NSF) -2010.
The two main objectives are:
- i. to evaluate the R&D worldwide progress made in Nanoscience and Nanotechnology since 2000, and
 - ii. to discuss research directions for the next ten years based on current research and scenario development.
- Invitation by Head of Unit G4 "Nanosciences and Nanotechnologies", Directorate G "Industrial Technologies", Directorate General Research, European Commission, CDMA 06/154, 1049 Brussels.
- Member** of the 'NSF Pool of referees' for assessing USA science initiatives in the field of Nanosciences & Nanotechnologies.
- Member** of the 'ESF Pool of referees' for assessing European science initiatives.
- Member** of the *Evaluation Committee of Financing Investments* of the Greek Secretariat for the Research & Technology, Ministry for Development
- Member** of the Materials Research Society (MRS), European Materials Research Society (EMRS), the Hellenic Physical Society (HPS), Hellenic Society of Condensed Matter Technology (HSCMT) and Hellenic Society of Ceramics (HSC)
- Member of the Management Committee** of the project: 'Triboscience and Tribotechnology: Superior Friction and Wear control in Engines and Transmissions' COST, Action 532 (2002-2007), Scient. Resp.: Dr. Kenneth Holmberg, VTT Manufacturing Technology.

Member of the 'ESF Pool of referees' for assessing European science initiatives.

Member of the scientific committee (European Commission) for Priorities in:

- Information Society Technologies-**IST** for new definitions of Work Programme 2005-2006, 2006-07 on the two Strategic Objectives (SO) in the currently valid WP 2003-2004 (SO 2.3.1.2 'Micro & Nanosystems' and SO 2.3.2.1 'Advanced Displays')
- **Nanotechnologies** and **nano**-sciences, knowledge-based multifunctional materials and new production processes and devices Nanotechnologies for new definitions of Work Programme (WP) 2005/06, 2006-07, 2009-10.

Consultant of European Commission for Future and Emerging Technologies research (2013-present)

Consulting in a number of EU & Hellenic Companies & SMEs in emerging technologies (both novel materials and processing).

Member of the 'NSF Pool of referees' for assessing USA science initiatives in the field of Nanosciences & Nanotechnologies.

C. Member of Organising & Scientific Committees for Scientific Conferences

Member of the Committee of the 18th Panhellenic Concrete Concept, in session "Advanced and Advanced Materials", Athens, Greece 29-31 March 2018

Chair of "Biomaterials design" session of the ESB2017 Conference Organizing Committee, Athens, Greece, September 4-8, 2017

Member of the International Committee of the ICOPS 2015, the 42nd IEEE International Conference on Plasma Science (ICOPS), Belek, Antalya, Turkey May 24-28, 2015

Member of the International Scientific Committee of the 5th International Conference on "Structural Analysis of Advanced Materials", ICSAAM-2013, held in Kos, 23 - 26 September 2013, Greece

Member of the International Scientific Committee of the 2nd International Conference of Engineering Against Fracture, 22-24 June 2011 Mykonos, GREECE

Member of the Committee of the 1st IC-4N Nano Conference: 1st International Conference From Nanoparticles and Nanomaterials to Nanostructures and Nanodevices (4N – 2008)

Member of the International Advisory Committee Symposium "Nanostructured Composite Films: Synthesis, Characterization and Applications" E-MRS 2006 Fall Meeting, Warsaw, Poland, September 4-8, 2006.

Member of the scientific committee of the 6th Specialist Meeting on Amorphous Carbon (SMAC 2006).

Member of the international committee of the 3rd Balkan Conference of Environment, 13 – 16 March 2006, Sustainable Development: Theory and Action, Katerini, Greece

Member of the Organizing Committee of the 7th Chemical Engineering Conference for Collaborative Research in Eastern Mediterranean Countries (EMCC7).

Organizer-Host of a 3-days meeting of EC funded project HIPER-Act, Athens, 29-31 March 2011.

Member of the scientific committee of the symposium Q entitled "Protective Coatings and Thin Films 07" held for the E-MRS Spring Meeting in Strasbourg, May 28-June 1, 2007.

President of the Organizing Committee of the conference entitled "Towards the Ethics of Research in the Framework Programme horizon 2020 and the National Strategic Framework for Research, Technological Development and Innovation (ESPEK) ", National Technical University of Athens, 2-3 April (2012).

Industrial workshop: 'Material needs and an outlook in future needs in the launcher and transportation sector'

Member of the Scientific Committee of the 6th Specialist Meeting on Amorphous Carbon (SMAC 2006).

Member of the International Advisory Committee Symposium "Nanostructured Composite Films: Synthesis, Characterization and Applications" E-MRS 2006 Fall Meeting, Warsaw, Poland, September 4-8, 2006.

D. Reviewer/Rapporteur

Evaluator for proposals in FLAG-ERA Joint Transnational Call 2017 (Graphene)

Reviewer of Books (for Micro and Nano Technology books: Advanced Nanomaterials Series), Elsevier

Reviewer in Symposia F and G 41st International Conference on Metallurgical Coatings and Thin Films

Reviewer of the Support Programme of Research "Caratheodory" at the University of Patras, postdoctoral research proposals

Evaluator for proposals in the area of nanotechnology for Czech Science Foundation

Evaluator for Science Fund of Austria in the area of bio- nanotechnology

Evaluator of Romanian National Research Council

Member of the Austrian Science Fund (FWF) (is Austria's central funding organization for basic research) – 2012-2013 .

Evaluator in European Research Council, ERC (2009-2013).

External Reviewer (2012-2013) of the European Commission, defined from Action Unit for Small Medium Enterprises (SME Action Unit) under the scheme "Research for the Benefit of SMEs.

Evaluator of the Seventh Framework Programme FP7 (2007-2011), Sixth Framework Programme FP6 (2002-2006), Fifth Framework Programme FP5 (European Commission) (1998-2002)

Evaluator of R&D projects for the Secretariat for Research & Technology, Greek Ministry for Development (2000- ...).

Evaluator of the CYPRUS RESEARCH PROMOTION FOUNDATION (2003- ...).

Evaluator in European Metrology Research Programme (EMRP). Call in the area of "Energy", which forms part of the new European Metrology Research Programme (EMRP) operated by EURAMET (the European Association of National Metrology Institutes). The EMRP Call 2009-Energy is for Joint Research Projects (JRPs), and associated Researcher Excellence Grants (REGs)

Evaluator/Expert-Reviewer/Rapporteur (European Commission) 2008-2012, total budget 41.5 m. € (**Project Technical Advisor** for nanosciences, nanotechnologies, materials and new production technologies (NMP), European Commission-Research Directorate General (2008-2012)).

Evaluator/Expert-Reviewer/Rapporteur in
European Commission (Evaluator, Rapporteur)

- 1) 'Roadmap for Metallurgy Made in and for Europe'
- 2) Ethical part of proposals, in the framework of the ERC-2013-AdG, H2020-ICT 2014-1 calls.
- 3) FP7-2007-2013 Large scale projects, Research for SME, Ethical Review (e.g. NMP.2011.1.2-1, NMP-2011-4.0-1, ENERGY.2011.2.1-2, NMP.2012.2.2-3, NMP-2013-1.4-2)
- 4) FP6-2003-Integrated Projects & CRAFT (2004-2006)
- 5) FP6-2003-Participation in Ethical Review Panels (4) at proposals on Nanotechnology, 2003-2006
- 6) FP6-2002-SME-1 SP1/SME/SME-2, CRAFT Projects (3), 2003-2006
- 7) FP5-2002-CRAFT under Programme GROWTH (2002)-DG, MAT, KA 1 (1), 2002-2004

NSF (USA)

8) Reviewer for the National Science Foundation (2003-....)

ESF (EU)

9) Reviewer for the European Science Foundation (2007-....)

ERA-NET 'M-ERA.NET'

10) M-ERA.NET 2012 Call

Hellenic

11) Evaluator & Reviewer in National Projects–General Secretariat for Research & Technology, Greek Ministry of Development (2002-) (MANUNET-II)

Research Promotion Foundation (RPF), Government of the Republic of Cyprus

12) Evaluator & Reviewer in National & Bilateral Projects (2004-present)

Reviewer of the document "ProSafe's harmonized inventory of SbD protocols, procedures and data: State of the art and requirements for the implementation of the SbD concept" published at 31 August 31, 2016.

Referee in International Journals (85) :

1. ACS Applied Materials & Interfaces
2. Industrial & Engineering Chemistry Research
3. Special Issue Carbon Based Composites Films, Thien-Phap Nguyen, Ph.D., Guest Editor, Surface and Coatings Technology
4. Journal of Physics D: Applied Physics
5. Journal of Surface Science and Engineering, IJSURFSE
6. Advanced Composites Letters
7. Materials Research Bulletin
8. Materials Chemistry and Physics
9. Microelectronic Engineering, Micro and Nano Fabrication (ELSEVIER)
10. Journal of Materials Science, Springer
11. Journal of Composite Materials
12. Tribology International
13. Surface and Coatings Technology, Elsevier Science, Amsterdam, Netherlands.
14. Diamond and Related Materials, Elsevier Science, Amsterdam, Netherlands.
15. Thin Solid Films, Elsevier Science, Amsterdam, Netherlands.
16. Materials Letters, Elsevier Science
17. Materials Science and Engineering A, Elsevier Science
18. Materials Science and Engineering B, Elsevier Science
19. Journal of Non-Crystalline Solids, Elsevier Science
20. Applied Surface Science, Elsevier Science

21. Reviewer by invitation in the peer reviewing process of the papers in the special issue of IEEE Transactions on Magnetics in the framework of the 20th edition of the 'Soft Magnetic Materials' conference on September 18-22, 2011 in Greece.
22. Referee in EMRS-2004, Symposium J, Synthesis, Characterization and Advanced Applications of Amorphous Carbon Films (for Thin Solid Films)
23. Referee in the Special Issue of archival, referred scientific journal of Surface and Coatings Technology (Elsevier) in combination with the 2nd International Conference on Advances of Thin Films and Coatings Technologies (Thin Films 2004) 13-17 July, 2004 in Singapore.
24. Referee in the Special Issue of archival, referred journal of Thin Solid Films (Elsevier) in combination with the International Conference on Surfaces, Coatings and Nanostructured Materials (nanoSMat2005) 7-9 September 2005, in Portugal.
25. Referee of the 6th Specialist Meeting on Amorphous Carbon (SMAC 2006) (manuscripts submitted for publication in Diamond and Related Materials).
26. Referee of the 5th & 6th International Conference on Nanosciences & Nanotechnologies - NN08 (14-16 July 2008, 13-15 July 2009) 6th (manuscripts submitted for publication in Materials Science and Engineering B, Elsevier Science).
27. Referee of the EMRS-2007 (May 28–June 1) FUNCTIONAL MATERIALS & CHARACTERIZATIONS (Symp. Q Protective Coatings and Thin Films 07) (manuscripts submitted for publication in Surface and Coatings Technology).
28. Referee of the special issue of “Journal of Alloys and Compounds” containing the proceedings of ISMANAM (International Symposium on Metastable and Nano Materials) 2007 (26 to 30 August).
29. Referee of the special issue of Theoretical and Applied Fracture Mechanics dedicated to cover the works presented in the 1st International Conference of Engineering Against Fracture (ICEAF), Editor of Theoretical and Applied Fracture Mechanics: Prof. George Sih.
30. Associated Editor of the International Journal of Surface Engineering and Interdisciplinary Materials Science [IJSEIMS] www.igi-global.com/ijseims
31. Referee in International peer-reviewed Journal Sensors (ISSN 1424-8220; CODEN: SENS9), on the science and technology of sensors and biosensors, by MDPI AG, Postfach, CH-4005 Basel, Switzerland.
32. Journal of Industrial & Engineering Chemistry Research.
33. Journal of Macromolecular Research
34. NANO, Brief reports and reviews, World Scientific Journals
35. Physica Status Solidi C
36. Journal of Polymer Science Part B: Polymer Physics
37. Journal of Reinforced Plastics and Composites
38. Tribology Letters
39. INDIAN JOURNAL OF ENGINEERING
40. Journal of Nanoparticle Research
41. 40th International Conference on Metallurgical Coatings and Thin Films
42. Journal of Nanoscience
43. Entropy
44. International Journal of Structural Integrity
45. Referee of the Research Promotion Foundation (RPF) for the call: EUREKA (2013)
46. Fundação para a Ciência e a Tecnologia (FCT) (2013 - ...)
47. Referee and member of the Editorial Board ISRN Nanotechnology
48. Journal of Engineering Tribology
49. International Journal of Mechanical Sciences
50. Fatigue & Fracture of Engineering Materials & Structures
51. International Journal of Materials Research
52. Nanoscale Research Letters
53. Composites and Technology
54. Referee of the 41st International Conference on Metallurgical Coatings and Thin Films, 28 April – 2 May 2014, San Diego, USA

55. Journal of the Association of Arab Universities for Basic and Applied Sciences
56. Journal of the Mechanical Behavior of Biomedical Materials
57. Progress in Organic Coatings
58. Nano Journals
59. Nanomaterials and Nanotechnology
60. International Journal of Molecular Sciences
61. Journal Journal of Heat Transfer Engineering
62. ACS Applied Materials & Interfaces
63. Heat Transfer Engineering Journal (Published by Taylor and Francis)
64. Arabian Journal of Chemistry
65. Journal of the Mechanical Behavior of Biomedical Materials
66. International Journal of Nanomedicine and Nanosurgery
67. Reviewer by invitation (by Sherry Zhang, Organizing committee) of papers submitted to the International Conference on Materials Science (ICMS2015), held in Shanghai during March 29th-31st 2015.
68. Surface and Interface Analysis
69. Materials and Design
70. Materials Express and Materials and Design
71. Progress in Organic Coatings Coatings
72. Journal of Industrial & Engineering Chemistry Research
73. International Journal of Industrial Chemistry
74. Microelectronic Engineering
75. Polymer Composites
76. Colloids and Surfaces A: Physicochemical and Engineering Aspects
77. Nanoscale Research Letters
78. Composites Part A
79. Journal of Mechanical Engineering Science
80. International Journal of Electrochemistry
81. Journal of Nanoscience and Nanotechnology
82. Arabian Journal of Chemistry
83. Environmental Science: Nano, published by the Royal Society of Chemistry
84. Nano-Micro Letters
85. Journal of Cleaner Production

Invitations

1. Invitation by Prof Dr Tewfik Soulimane, Chair of FRIMACHAT “Frontiers in Materials Characterisation towards Industrial Translation (FRIMACHAT)” workshop meeting, held at the Bernal Research Institute, University of Limerick, Ireland from July the 11th to 13th, 2017.
2. Invited to participate to the Scientific Evaluation Panel (SEP) for the “Graphene – Applied Research & Innovation (ARI)” topic
3. 29/11/ 2016: Trilateral EU-US-Japan Conference on Critical Raw Materials, BREYDEL Building - Auditorium, Brussels.
4. 22–24/06/2016: Interview at the Industrial Technologies Conference in Amsterdam as the coordinator of MODCOMP (H2020) and Fibralspec (FP7) to the Journalist, Dr Cordelia Sealy. The theme of the interview is “Open Innovation: the people behind the projects”.
5. 22-24/06/2016: Revolution by technology and innovation Development, Manufacturing and application of Carbon Fibers and Fibre-based materials: the new frontier for low cost and green

processes (speaker) (Workshops Industrial Revolution) European Conference Industrial Technologies in the RAI Amsterdam

6. 22-24/06/2016: European Materials Characterisation Council, Sophia Fantechi (chair) Costas Charitidis (co-chair & speaker) (Workshops Industrial Revolution) European Conference Industrial Technologies in the RAI Amsterdam
7. Invitation to act as co-Editor in the research book "Smart Carbon based Materials" (De Gruyter)
8. Invitation to act as Editor and co-author in the research book "Nanomaterials in Joining" (De Gruyter)
9. 20-23/09/2015: Invitation to give a lecture in XXXI Solid State Physics and Materials Science Conference, Thessaloniki,
Title: Carbon based composite structures and advanced tools for mechanical behaviour assessment
Elias P. Koumoulos, Dimitris A. Dragatogiannis, Costas A. Charitidis
10. 18/09/2015: participation in International Colloquium on Composite Materials: how carbon composites are revolutionizing our world!, Brussels--University Foundation.
11. 24-26/6/2015: Invitation to participate in the International Scientific Committee of the 4th International Conference of Engineering Against Failure (ICEAF IV), Skiathos, Greece.
12. 20/03/2015: Invitation by Fraxedas Calduch, Jordi to give a lecture to Catalan Institute of Nanoscience and Nanotechnology (ICN2), Force Probe Microscopy & Surface Nanoengineering Group, Barcelona, Spain, Title of lecture: "Recent advancements in carbon-based materials"
13. 24-26/6/2015: Invitation to participate in the International Scientific Committee of the 4th International Conference of Engineering Against Failure (ICEAF IV), Skiathos, Greece.
14. 05/11/2014: Invitation by Karl Hoehener, Temas AG to participate in the Workshop: "Innovation meets Regulation", Rotterdam, The Netherlands
15. 09/10/2014: Invitation to participate in the 1st Nanomechanics inc. user meeting, Rome, October 9th 2014, Roma TRE University
16. 1-2/4/2014: Invitation to participate in the "Workshop to explore potential for South Africa-European Union marine research partnerships", and specifically in the round table, organized by Strengthening Technology, Research and Innovation Cooperation between Europe and South Africa "ESASTAPplus"
17. 24-30/8/2014: Invitation by Dr. Kun'ichi Miyazawa to visit the National Institute for Materials Science (NIMS), Ibaraki, Japan.
18. 24-28/8/2014: Invitation to give a lecture to the 15th IUMRS-ICA (International Union of Materials Research of Societies, International Conference in Asia) Symposia A-2: "A-2 International Symposium on the Social Acceptance of Engineered Nanomaterials" in Fukuoka, Japan.
Title of lecture: "Risk management of engineered nanomaterials in EU"
19. 27-28/1/2014: Invited by The Interdisciplinary Research Center for Cooperative Functional Systems, Münster University. Title: "Risk assessment on ENPs exposure"
20. 21-22/1/2014: Invited by Prof.dr. A. Schmidt-Ott, Department of Chemical Engineering, Section Materials for Energy and Conversion Storage, Technical University of Delft, The Netherlands. Title: "Manufacturing Nanomaterials: From research to market"

21. 23-25/4/2014: Invitation to participate in the Scientific Committee of the 1st International Middle East Plasma Science (IMEPS) Conference, Belek-Antalya, Turkey.
22. 20-22/11/2013: Invitation by Prof. Frantisek Freiberg, Head of Department of Management and Economics, Faculty of Mechanical Engineering, Czech Technical University in Prague, Title: "Life cycle assessment of manufactured nanomaterials"
23. 7-8/11/2013: Invitation by Professor Albert Duschl, Department of Molecular Biology, University of Salzburg, Austria, Title: "Surface topography and nanomechanical properties in nano/bio-interactions"
24. 22/10/2013: Invited by Prof. dr. U. Stauffer, Delft University of Technology, Faculty Mechanical, Maritime and Materials Engineering, Dep. Precision and Microsystems Engineering, DELFT, The Netherlands. Title: "Mechanical properties of dissimilar friction stir welding aluminum alloys reinforced with nanoparticles"
25. 25-26/9/2013: Invited by Hans Hertz Professor/Head of division Biomedical and X-Ray Physics (part of the Department of Applied Physics), KTH-Royal Institute of Technology, Stockholm. Title: "Structural analysis & nanomechanical properties of CNTs: State of the art"
26. 23-26/9/2013: Invitation to participate in the International Organizing Committee 5th International Conference on "Structural Analysis of Advanced Materials", ICSAAM-2013, Kos, Kipriotis Village Resort, Island of Kos, Greece.
27. 18/9/2013: Invited by Prof. G.A. Stanciu – Director of the Center for Microscopy – Microanalysis and Information Processing, University Politehnica Bucharest. Title: "IR Microscopy: Chemical and structural imaging at nanoscale"
28. 'Roadmap for Metallurgy Made in and for Europe', Meetings 30/9, 7-8/10, 10-11/12/2013 in Brussels
29. 17-18/06/2013: Fachgebiet Nanostrukturtechnik, Fakultät für Ingenieurwissenschaften Universität Duisburg-Essen, Duisburg
Title of the lecture: "Towards large-scale sustainable synthesis of nano particles and nano structures"
30. 1st Conference on Defense Technology Applications, Nanotechnology and Advanced Materials-Innovation and Evolution, C.A. CHARITIDIS
31. 21 May 2013 CRF FIAT, Orbassano, Turin, ITALY New nano manufacturing routes for printed electronics, surface coatings, health & medical and hybrid polymers
32. Invitation by Prof. Mieczystaw Woch, Director for Metal Processing and Materials Engineering, Gliwice, Poland, 17-19/4/2013 Title of lecture: Nanometallurgy and metallic nano structures
33. 3-4/4/2013: Invitation to give a lecture in Vienna, entitled "Atomic Force Microscopy as a tool for investigation of nanomechanical properties"
34. 4-5/4/2013: Invitation to give a lecture in Bergen, entitled "Nanomechanical properties of soft matter"
35. 13-14/3/2013: Invitation to give a lecture in TWI Ltd, Cambridge, United Kingdom, entitled "Nanoengineering & nanomechanical properties of joints"
36. 21-22/3/2013: Invitation to give a lecture in University of Parma, Faculty of Medicine entitled "Nanotechnology perspectives in health"

37. 25-29/08/2013: Invitation to give a lecture in Eurofillers International Conference, entitled "Nanoindentation analysis of engineering materials"
38. 27-28/11/ 2012: Workshop on Safe handling of nanomaterials at workplaces: Practical Guidance for the Safe Use of Nanomaterials BAuA (Bundesanstalt für Arbeitsschutz und Arbeitsmedizin) Berlin, GERMANY.
39. 15-17/10/2012: Invitation to give a lecture in Instituto De Microelectronica De Barcelona entitled "Mechanical response and performance of materials for sensing in nanoscale".
40. 29/8/2012: Invitation to give a lecture in DTU Wind Energy, Department of Wind Energy, Technical University of Denmark, Risø Campus, Roskilde, Denmark (invitation by John Michael Hansen).
41. Invitation to act as Editor and co-author in the research book "Nanocomposites: materials, manufacturing and engineering" (De Gruyter) <http://www.degruyter.com> (J.Paulo Davim)
42. 6-9/05/2012: Invitation to participate in the Scientific Committee during the 19th International Scientific and Technical Conference, Kontech, entitled: "Advanced forming technologies and nanostructured materials".
43. Invited presentation by Nanocarb Laboratory, Joint team, Ecole Polytechnique/Thales THALES RESEARCH AND TECHNOLOGY for a seminar which the title of will be defined.
44. 30/4/2012-4/5/2012: Invitation to give a lecture in the International Symposium entitled Computational mechanics of nanomaterials and nanostructures (ICCES'12 Chania, Crete, Greece).
45. 30/3/2012: Invitation to give a lecture by University of Picardie Jules Verne, France Lecture Title: Nanomechanical properties of complex materials.
46. 22/3/2012: Invitation to give a lecture by Technical University Darmstadt, Germany Lecture Title: Nano-crack initiation and propagation in multilayered structures.
47. 20/3/2012: Invitation to give a lecture by Microsharp Corporation Ltd, Great Britain Lecture Title: Nanoengineering of metal parts for micro- nano- electronics.
48. Invitation to submit an article to the second annual Special Issue "Nanocomposites 2012" which will be published in Journal of Nanotechnology.
49. 20-24/03/2012: Invitation to give a lecture in the International Conference on Geology of Mineral Deposits, which will be held in Ulan-Ude, Russia. This event will be organized and hosted by Laboratory of Geological Institute, Siberian Branch, Russian Science Academy. The title of the lecture will be defined.
50. 18-19/11/2011: Invited in the 5th Symposium of the Hellenic Society for Biomaterials to give a lecture entitled: "Experimental and Mathematical study of nanomechanical properties of cells and tissues".
51. 27-28/10/2011: Invitation for a seminar in the Instituto de Optica, CSIC (Spanish National Research Council) in Madrid (by Dr Rosalia Serna) entitled "Nanoengineering & nanomechanical properties of some materials for optoelectronic applications".
52. Invitation to give a lecture in the 1st Annual Congress of Nano-S&T, a dedicate event for Nanoscience and Nanotechnology Professionals (October 23-26, 2011).

53. Invited presentation at the symposium “Hardness across the Multi-Scales of Structure and Loading rate” scheduled for the MS&T 2011 Meeting, Columbus, OH, October 16-20, 2011. Lecture Title: "Multiscale Approach of Hardness in Aluminum Alloy - Consideration of Rate Dependent Behavior".
54. Invitation by the FP7 MID-TERM EVALUATION conference, 16-17 June 2011 in Budapest, to participate in the round-table discussions and the networking activities on the FP7 interim evaluation, industry and SME involvement in FP7, plans for innovation etc.
(Invitation by Ms Eszter Horvath conference coordinator).
55. Invitation to participate in the 1st periodical meeting of NANOMINING project entitled “Development of new nanocomposites using materials from mining industry (NMP.2010.1.2-4 – Adding Value to Mining at the Nanostructure level, FP7), Poznan 11-13 May 2011. Invited lecture in the Poznań University of Technology, 14 May 2011. Title: “Successful adaptation of nanotechnology in the metal forming technologies”.
56. Invitation by Maria Omastova, D.Sc and Dr. Igor Krupa to participate in the Technical review meeting of project 7 RP Nano-optical mechanical systems (NOMS), licence number of project: Stage 1 CFPF 228916-1 in Bratislava, Slovakia from March 22 to 24, 2011.
57. Invitation to a specialist brainstorming and coordination meeting in Brussels (2/3/2011) at SDMA on Life Cycle Assessment (LCA) & Risk Analysis in Nanomaterials-related NMP projects.
The risk assessment of new technologies and materials development as well as life cycle behavior become more and more major factors of sustainable success and constitute one of the main issues in evaluating the impact of NMP proposals.
58. Workshop (Kiev the 24 -26 November 2010) on Advanced high temperature materials for core and novel energy engineering, in view a future research collaboration with Eastern associated Countries (EoC) namely Ukraine, Moldova, Belarus, Armenia and Azerbaitjan.
Invited by National Academy of Sciences of Ukraine and European Commission as an expert to define well the research and industrial interests in both geographic areas and eventually publish a topic in the form of a SICA call between EU and EoC under the NMP-FP7 2012 work programme (participation of 5 experts from EU member states, 5 from EoC states and a EU rapporteur).

Lecture Title: Solid oxide and molten carbonate fuel cells (SOFCs and MCFCs)
59. Invited by the Ethics Review Sector DGR TD L-3 of the European Commission, to attend the kick-off meeting of the 'Lessons learnt 2009-2010' exercise (September 01, 2010, Brussels) and to participate in the Working group 'Lessons learnt 2009-2010'. The scope of this group is to focus on the current Ethics Review procedure; and especially the implementation of and the synergy with the Ethics Screening which is now carried out by the different Programmes need some special attention.
CHAIR: Joseph Schmucker-von-Koch, MEMBERS: James. A. Houghton, Francois Hirsch, Janet Mifsud, Johannes Rath, M. Sutrop, S.O' Sullivan, C.A. Charitidis, D.B. Morton
Invitation by Dr.ir Stefan De Vos, European Commission, DG for Research and Innovation Science, Economy and Society Directorate (L) -Governance and Ethics (L3) - Ethics Review
60. Invited in the 24 M Meeting of the FP7 MUST-project in Noordwijk, the Netherlands from 28 June to 30 June, Πρόσκληση από Christian Simon, Management Support Team of MUST, SINTEF Materials and Chemistry, P.O. Box 124, Blindern, 0314 Oslo, Norway
Lecture Title: “Nanocontainers in automotive, aerospace and maritime industry for long-term corrosion protection of light alloys (aluminium, magnesium) and the enhanced of their mechanical properties”.
61. Invited in the workshop on 23-24 June 2010 in Hamburg on "Long-term Impacts and Future Opportunities for Nanoscale Science and Engineering" organized by the European Commission, the DESY (Deutsches Elektronen-Synchrotron - Research Centre of the Helmholtz Association) and the NSF (US National Science Foundation) with a group of high level experts from Europe and the US.

The two main objectives of the workshop are:

- to evaluate the R&D worldwide progress made in Nanoscience and Nanotechnology since 2000, and
- to discuss research directions for the next ten years based on current research and scenario development.

Invitation by Christos Tokamanis, Head of Unit G4 "Nanosciences and Nanotechnologies", Directorate G "Industrial Technologies", Directorate General Research, European Commission, CDMA 06/154, 1049 Brussels

62. Invited in the 6th Chemical Engineering Conference for Collaborative Research in Eastern Mediterranean Countries (EMCC6), March 7-12, 2010, Belek, Antalya, Turkey (Prof. Dr. Yuda Yürüm, Faculty of Engineering and Natural Sciences, Sabanci University, Istanbul 34956
Lecture Title: ‘Nanoscale deformation and nanomechanical properties of soft matter. Study cases: Poly-dimethylsiloxane (PDMS), Cells and Tissues’
63. Invited in the Instituto Superior Técnico, Av. Rovisco Pais 1049-001 Lisboa, 12 November 2009, Invited from M.G.S. Ferreira, Full Professor and Fatima Montemor, Deputy Director for International Affairs of Instituto Superior Técnico Av. Rovisco Pais 1049-001 Lisboa, Lecture Title: ‘Nanomechanical Properties of AZ31 Mg Alloys: Quantification of the local cyclic plasticity in nanoscale’.
64. Invited in the Faculté des Sciences, Université Libre de Bruxelles, Université d’ Europe, University Foundation, 30 October 2009.
Invited by Professeur Yves Geerts, Laboratoire de Chimie des Polymères
Lecture Title: ‘Nanoscale deformation and nanomechanical properties of soft matter’
65. Invited presentation in ICEAF, 1st International Conference of Engineering Against Fracture, 28-30 May 2008, University of Patras, Greece, Lecture Title: ‘Fracture and failure in micro- and nano-scale’
66. Governance and Ethics of Nanotechnology
International conference, Brussels, 7-8 May 2008-05-09 Venue: Jean Monnet Room, Berlaymont Building
Participation by invitation
67. Seminar on Governance and Ethics of Nanotechnology
‘Deliberation on the implementation of a code of conduct and fostering international dialogue and collaboration’
Brussels, 17-18 November 2008
Participation by invitation
68. Invited by the Ethics Review Sector DGRTD L-3 of the European Commission, to attend the meeting of the 'Lessons learnt 2007-2008' exercise (February 27, 2008, Brussels) and to participate in the Working group 'Lessons learnt 2007-2008'.
The purpose of the meeting was to discuss the experiences gained during these past Reviews and to make constructive recommendations about the mechanisms and practicalities of Ethical Review in the future.
CHAIR: James A Houghton, MEMBERS: Regina Becker, Andrew Bottomley, Axel Carlberg, Constantinos A Charitidis, Anne Demoisy, Aine de Roiste, Guy Ebinger, Erik Forsse, Caroline Gans-Combe, Johannes Rath, Myra Tilney, FOR THE COMMISSION: Gareth Ross John Beaton, François Hirsch, Isidoros Karatzas, Marco Michelini
69. Invited in the 6th European Symposium on nano-mechanical Testing, nanomech 6 30/8 – 1/9/2005 in Huckelhoven / Germany 30/8 – 1/9/2005

Lecture Title: “Comparing nanotribological and nanomechanical properties of different types of amorphous carbon and boron nitride thin films”

70. Invited in the Technion, Haifa Israel, Corrosion, Surface Treatment and Laser Technology Lab
28/02/2006, Invited by: Dr. Shoshana Tamir, Lecture Title: “Advanced materials & processes – Nanomaterials & treatment at the nanoscale”
71. Invitation for participation in the 36M meeting of MUST program, Lecture on 'Self-healing nanomaterials', Helsinki, June 14-16, 2011.
72. Invited in Fraunhofer Institute for Process Engineering and Packaging IVV, Freising – Munich, 7-11-2003

Lecture Title: “Nanomechanical and Nanotribological Properties of Polymers” Invited by Dr. Horst-Christian Langowski, Director of the Fraunhofer Institute for Process Engineering and Packaging, Professor at the Technical University of Munich, Garching, Germany
73. Invited in the 6th Mesomechanics 2004, International Conference on Multiscaling in Applied Science and Emerging Technologies Fundamentals and Applications University of Patras, Greece, May 31 – June 4, 2004
Lecture Title: “Scale dependence of mechanical & tribological properties of engineering materials and systems”
Invited by Professor S. Pantelakis, Co-Chairman and Coordinator
74. Invited in the National Centre for Scientific Research ‘Demokritos’, Institute of Microelectronics, September 2004
Lecture Title: “Advances in Nanomechanics & Nanoengineering”
75. Invited in the Fraunhofer Institute for Process Engineering and Packaging IVV, Freising – Munich, July 6, 2004
Lecture Title: “Nanomechanical and Nanotribological Properties of Advanced Packaging Materials”
76. Invited in the GKSS Forschungszentrum, Institut für Werkstoffforschung
November 2004
Lecture Title: “Advances in Nanomechanics and Nanoengineering” Invited by Professor Bilal Dogan, High Temperature Testing and Characterization

Coordination / Participation (Technical & managerial supervision) in selected Scientific, RTD and Industrial Projects

1. Additive Manufacturing of 3D Microfluidic MEMS for Lab-on-a-Chip applications
Title: M3DLOC
Source of funding: HORIZON 2020
Budget: 8 M €
Name of the coordinating person: Prof. Costas Charitidis
2. Smart by Design and Intelligent by Architecture for turbine blade fan and structural components systems
Title: SMARTFAN
Source of funding: HORIZON 2020
Budget: 8 M €
Name of the coordinating person: Prof. Costas Charitidis
3. Innovative Materials And Techniques For The Conservation Of 20th Century Concrete-Based Cultural Heritage
Title: Innovaconcrete

Source of funding: HORIZON 2020
Budget: 7 M €
Name of the coordinating person: Dr. Maria Jesus Mosquera Diaz

4. European Carbon Fibres And Pre-Impregnated Materials For Space Applications
Title: SPACECARBON
Source of funding: HORIZON 2020
Budget: 5 M €
Name of the coordinating person: Dr. Nuno Rocha
5. Biomaterial Risk Management
Title: BIORIMA
Source of funding: HORIZON 2020
Budget: 9 M €
Name of the coordinating person: Prof. Lang Tran
6. Open Characterisation And Modelling Environment To Drive Innovation In Advanced Nano-Architected And Bio-Inspired Hard/Soft Interfaces
Title: OYSTER
Source of funding: HORIZON 2020
Budget: 4 M €
Name of the coordinating person: Dr. Marco Sebastiani
7. The European Nanotechnology Community Informatics Platform: Bridging Data And Disciplinary Gaps For Industry And Regulators
Title: NANOCOMMONS
Source of funding: HORIZON 2020
Budget: 6 M €
Name of the coordinating person: Dr. Iseult Lynch
8. Long Lasting Reinforced Concrete for Energy Infrastructure under Severe Operating Conditions
Title: LORCENIS
Source of funding: HORIZON 2020
Budget: 9 M €
Name of the coordinating person: Dr. Christian Simon
9. Investigation, evaluation and corrosion treatment of water-steam circulation system
Source of funding: Uni-Pharma S.A. Pharmaceutical Laboratories
Budget: 23,759.64 €
Name of the coordinating person: Prof. Dr. Costas A. Charitidis
10. Modified cost effective fibre based structures with improved multi-functionality and performance
Title: MODCOMP:
Source of funding: HORIZON 2020
Budget: 8 M €
Name of the coordinating person: Prof. Dr. Costas A. Charitidis
11. A novel process for manufacturing complex shaped Fe-Al intermetallic parts resistant to extreme environments
Title: EQUINOX
Source of funding: HORIZON 2020
Budget: 3.7 M€
Name of the coordinating person: Prof. Dr. Costas A. Charitidis
12. Low Cost Materials Processing Technologies for Mass Production of Lightweight Vehicles
Title: LOCOMATECH

Source of funding: HORIZON 2020
Budget: 7.997.725 €
Name of the coordinating person: Professor Jianguo Lin

13. European Network of Research Ethics and Research Integrity
Title: ENERI
Source of funding: HORIZON 2020
Budget: 1.499.000 €
Name of the coordinating person: Dr. Dirk Lanzerath
14. Innovating Education of Talents in Chemistry for Business Success in SMEs' Innovations
Title: InnoChem
Erasmus+ programme
Key Action 2 (KA2) — Cooperation for innovation and the exchange of good practices
Name of the coordinating person: Silvia Surova, Association of Chemical and Pharmaceutical Industry of the Slovak Republic
15. 'Self Healing nanomaterials for protection of metal aLLoys '
Title: SHELL
Source of funding: NSRF
Budget: € 220.000
Name of the coordinating person: Prof. Dr. Costas A. Charitidis
16. 'In vitro assessment of OSTEOinductive BIOMIMetic and polymeric compoSIte biomaterial Scaffolds for bone tissue repair'
Title: OSTEOBIOMIMESIS
Source of funding: NSRF
Budget: € 220.000
Name of the coordinating person: M. Chatzinikolaidou
17. 'Fuctionalised Innovative Carbon Fibres Developed from Novel Precursors With Cost Efficiency and Tailored Properties'
Title: FIBRALSPEC
Call topic: NMP.2013.2.1-1 "Developing new precursors, functionalisations and processing routes for carbon fibres"
Budget: € 6 083 991
Name of the coordinating person: Prof. Dr. Costas A. Charitidis
18. 'Low-toxic cost-efficient environment-friendly antifouling materials'
Title: BYEFOULING
Call topic: FP7-OCEAN.2013-3 "Innovative antifouling materials for maritime applications"
Budget: € 7 447 584.00
Name of the coordinating person: Dr. Christian Simon
19. Investigation and evaluation of mechanical response and structural integrity of roof polycarbonate sheets (2013-2014)
Budget: € 12 300 (CYTA)
Name of the coordinating person: Prof. Dr. Costas A. Charitidis
20. Investigation and evaluation of mechanical response of eye-drop vials (2013-2014)
Budget: € 650 (RAFARM A.E.B.E.)
Name of the coordinating person: Prof. Dr. Costas A. Charitidis
21. Investigation and confronting the corrosion of metallic components in water cooling closed-loop circulation (2012-2013)
Budget: € 11 500 (OTE)

Name of the coordinating person: Prof. Dr. Costas A. Charitidis

22. ‘Enhancing Structural efficiency through novel dissimilar material JOINING Techniques’
Title: SAFEJOINT
Call topic: NMP.2012.2.1-1, “Joining of Dissimilar Materials (excluding applications specific to healthcare)
Budget: € 3.994.500
Name of the coordinating person: Prof. Kotsikos, Univ. New Castle
23. Novel Self-Healing Eco-friendly Coatings with Antifouling and Anticorrosion Properties for Maritime Applications’
Title: MARIPAINTS
National Call Program "Synergy 2011"
Budget: 994 891.58 € (Hellenic Ministry of Education)
24. Development of High Performance Alumina Matrix Nanostructured Composites (Code: 668), Call Thales (2011-2013)
Title: NAMCO
Budget: 521.739,13 € (Hellenic Ministry of Education)
Name of the coordinating person: Ass. Prof. Athena Tsetsekou
25. Design and fabrication of robust super hydrophobic/hydrophilic surfaces and their application in the realization of smart microfluidic valves, Call Thales (2011-2013), (Code: 173),
Title: DESIREDROP
Budget: 599.424,00 € (Hellenic Ministry of Education)
Name of the coordinating person: Senior Researcher Angeliki Tserepi, Institute of Microelectronics, NCSR-“Demokritos”
26. Synthesis of nanostructures and investigation of their properties for bioengineering applications (Code: 133), Call Hraklitos II (2010-2013),
Budget: 45000 € (Hellenic Ministry of Education)
27. Synthesis of nanocontainers and investigation of their properties for medical applications (Code: 134), Call Hraklitos II (2010-2013),
Budget: 45000 € (Hellenic Ministry of Education)
28. Deposition of thin metallic and ceramic films (10-500nm) onto 3-D substrates using Chemical Vapor Deposition, Call Programme to support basic research (PEVE) (2010-2011),
Budget: 15000 € (National Technical University of Athens)
29. ‘Micro and Nanocrystalline Functionally Graded Materials for Transport Applications’, Proposal acronym: MATRANS, Collaborative project (Small or medium-scale focused research project), Call identifier FP7-NMP-2008-SMALL-2, THEME 4. NMP-2008-2.5-1 Functionally graded materials for improved mechanical performance
Name of the coordinating person: Prof. Katarzyna Pietrzak
Budget: 5000000 €
30. Participation in AEROMAG Project ‘Aeronautical Application of Wrought Magnesium’ (Project no. AST-CT-2005-513152), supported by the European Union. Our work has been performed on the study of toughness and mechanical properties of Mg alloys in the nanoscale (2005-2009)
Scientific Responsible: Sp. Pantelakis
Partners: Airbus Deutschland GmbH, Eurocopter, Alenia, Salzgitter Magnesium-Technologie GmbH, Otto Fuchs KG, EADS CRC Germany & France, AMT&S, VILS & VIAM, UPAT, UTH, INPG, ENSAM, TUW-IMC, Technion, UNINA
31. Scientific responsible of NTUA (one of the 3 partners) in the project:

PERFORMANCE OPTIMIZATION AND RELIABILITY OF InGaAs QUANTUM DOTS IN GaAs INFRARED PHOTODETECTORS, SCIENTIFIC and TECHNOLOGICAL COOPERATION between RTD ORGANISATIONS in GREECE and SOUTH KOREA
Budget: 62500 Euro

32. Scientific responsible in the project: ‘Scientific Research Infrastructures’, E.P.E.A.E.K. II
Budget: 150000 Euro
33. Scientific responsible for the proposal ‘Research Laboratory for Advanced Materials & Materials Systems’
Budget: 50000 Euro
34. Scientific responsible in the project: ‘Management of solid industrial waste products’, E.P.E.A.E.K. II, Budget: 50000 Euro
35. Participation (Member of the research team) in the project: ‘Nanostructured metallic glasses for thermo mechanical applications in harsh environments, Pythagoras II
36. Participation (Member of the research team) in the project: ‘Engineering of simulated toxic wastes’, Pythagoras II
37. Scientific responsible in the project ‘Investigation of ceramic coatings by spin coating’
Budget: 5000 Euro, Funded by Research Committee in Technological Educational Institute of Thessaloniki
38. Scientific responsible in the project ‘Monitoring of solid industrial waste products and their technological management’
Budget: 5000 Euro, Funded by Research Committee in Technological Educational Institute of Thessaloniki
39. “Transparent Films Vacuum Coatings Machine with Integrated In-line Monitoring and Control” (TransMach) GROWTH 2000 (3/2001 – 3/2004) GRD1-2000-25437
Budget 3.4 M€, with the participation of three European Industries and one Research Institute.
40. “Nanostructures-Interfaces-Adhesion of organic to inorganic materials. Application to razor blades-optical lenses-Photovoltaics-Packaging-Displays & Biomaterials” PENED 2001 (2002-2005)
Budget 146 K€.
41. “Nanomechanics, Nanoindentation and Nanofilms” PENED 2001 (2002-2005)
Budget 145 K€
42. Spin-off: ‘NanoCoat’ for the Production of advanced nanocoatings in Surface Engineering, Microdevices, Optical & Electronic devices and Biocompatible systems’.
43. Joint RTD Programme (2003-2005) Greece-Germany, “Development of transparent barrier films on membranes. Study of the adhesion and interface properties” AUTH-FhG-IVV
44. “Surface engineering by plasma techniques, ionic sources, and laser beams” PAVET 00BE21, Industrial Project (2001 – 2003),
Budget 146 K €.
45. “Development of a pilot vacuum chamber with plasma spray deposition technique for surface treatment and recapping” PAVE 99BE392, Industrial Project (1/2000- 6/2001)
46. “Multiwavelength sensor for sub-micron particle analysis (Multisens)” CRAFT (2/1999- 7/2001)
Budget 832 K€ (AUTH: 100 K€).

47. “European Research Network for Sustainable Technologies (ERNST):Clean Technologies for the Process Industries” , BRRT-CT98-5056 (1/1999-12/2001)
Budget 1.2 MEuro (AUTH: 4,8 K€) .
48. “Functionalized Ceramic Membrane Filter for Highly Efficient Soot Particle Removal”
BRITE EURAM III Project No: BE97 - 5088 (6/1998-5/2001).
Budget 2.458 K€ (AUTH 178 K€) with the participation of other two research Institutes and four European Industries.
49. “Deployment of in-Situ Optical Monitoring Techniques for Tailoring Thin Film Properties for Specific Advanced Industrial Applications” BRITE EURAM III BRPR-CT96-0265 (1/97-3/2000)
Budget 4 M€, with the participation of one Research Institute and five European Industries.
50. “Nanostructured Materials, Characterization-Fundamentals” COST, Action 523 (1999-2002)
51. “Coatings for Optical, Electronic and Chemical Industries” EPET II 333 (1/95-12/98),
Budget: 1.6 M€, with the participation of five Greek industries.

Publication List

A. Publications in International Journals (132)

1. **Metrology and nano-mechanical tests for nano-manufacturing and nano-bio interface: Challenges & future perspectives**
E.P.Koumoulos, S.A.M.Tofail, C.Silien D.De, Felicis, R.Moscatelli, D.A.Dragatogiannis, E.Bemprad, M.Sebastiani, C.A.Charitidis, *Materials & Design* Volume 137 (2018)
2. **Investigation of dissimilar metal joints with nanoparticle fillers**
E.Jasiūnienė, E.Žukauska, D.A.Dragatogiannis, E.P.Koumoulos, C.A.Charitidis, *NDT & E International* Volume 92, (2017)
3. **Lubricity Assessment, Wear and Friction of CNT-Based Structures in Nanoscale**
E.P. Koumoulos, Costas A. Charitidis, *Lubricants*, 5 (2017)
4. **Advanced characterization of by-product carbon film obtained by thermal chemical vapor deposition during CNT manufacturing**
A.F. Trompeta, E.P. Koumoulos, I.A. Kartsonakis, C.A. Charitidis, *Manufacturing Rev.*, 4 (2017)
5. **Effect of local microstructure on the indentation induced damage of a fiber reinforced composite**
P. Kavouras, D.A. Dragatogiannis, D.I. Batsouli, C.A. Charitidis., *Polymer Testing* 61 (2017)
6. **Advancement in corrosion resistance of AA 2024-T3 through sol-gel coatings including nanocontainers.**
Kartsonakis, I. A., Koumoulos, E. P., & Charitidis, C. A. *Manufacturing Review*, 4, 2 (2017)
7. **Nanomechanical properties and thermal decomposition of Cu-Al₂O₃ composites for FGM applications.**
Koumoulos, E. P., Kartsonakis, I. A., Bakolas, A., & Charitidis, C. A. *Manufacturing Review*, 3, 20 (2016)
8. **Surface functionalization of carbon fibers with active screen plasma.** Corujeira Gallo, S., Charitidis, C., & Dong, H. *Journal of Vacuum Science & Technology A: Vacuum, Surfaces, and Films*, 35(2), 021404 (2017)

9. **Evaluation of squeezability behavior of pharmaceutical eye-droplets vials: The liquid and the vial factors**
Koumoulos E. P., & Charitidis, C. A. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 0954406216666871 (2016).
10. **A comparative study of corrosion inhibitors on hot-dip galvanized steel**
Kartsonakis, I. A., Stanciu, S. G., Matei, A. A., Hristu, R., Karantonis, A., & Charitidis, C. A. Corrosion Science, 112, 289-307 (2016).
11. **Chloride ion entrapment by calcined layered double hydroxides**
Karaxi, E., Kartsonakis, I. A., & Charitidis, C. A. International Journal of Structural Integrity, 7(6), (2016).
12. **Towards a holistic environmental impact assessment of carbon nanotube growth through chemical vapour deposition**
Trompeta, A. F., Koklioti, M. A., Perivoliotis, D. K., Lynch, I., & Charitidis, C. A. Journal of Cleaner Production, 129, 384-394 (2016).
13. **Nanomaterial ontologies for nanosafety: A rose by any other name...**
Editorial by: Eugenia Valsami-Jones, Iseult Lynch and Costas A. Charitidis
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- 120. The effect of boron additions on the tribological behavior of TiN coatings produced by electron-beam evaporative PVD**
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- 121. Structure, mechanical and tribological properties of sputtered TiAlBN thin films**
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- 122. Superlinearity of Synthetic Quartz: Dependence on Pre-Dose**
C.A Charitidis, G. Kitis, C. Furetta, S. Charalambous, Radiation Protection Dosimetry 84 (1-4), 95-98 (1999).
- 123. A comparative study of composition, structure and elastic properties of boron nitride films deposited by magnetron and ion beam sputtering**
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- 130. Superlinearity of synthetic quartz at different irradiation temperatures**
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G. Kitis, C.A Charitidis, C. Furetta, Nuclear Science Journal 31, 465-471 (1994).
- 132. Thermoluminescence sensitization of LiF:Mg,Ti under heat treatment between 150 and 400 °C**
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B. Other Publications (16)

1. Co-author in **EMCC Roadmap for Materials Characterisation,**

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2. **Research Integrity in Europe and Greece**,
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3. Co-author in “**Closer to the market (CTTM)**”-roadmap”, Research roadmap for nanosafety.
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4. **Failure modes in composite joints: a finite element study**,
E. Theotokoglou, D.A. Dragatogiannis, S. Skiadas, C.A. Charitidis (National Technical University of Athens) SAFEJOINT Industry Workshop took place in Athens, Greece on the 03-04 July 2014,(oral presentation).
5. **Micro structural and mechanical study of AA 5083 and AA 6082 friction stir welds reinforced with SiC, TiC and CNTs**,
C. Charitidis, D.A. Dragatogiannis, E. Koumoulos, D. Pantelis, P. Karakizis, N. Daniolos, SAFEJOINT Industry Workshop took place in Athens, Greece on the 03-04 July 2014, (oral presentation).
6. Co-author in “**Roadmap or Metallurgy Made in and for Europe**” (Meetings 30/9, 7-8/10, 10-11/12/2013 in Brussels)
7. Co-author (total 32 authors) in the Report on EU-Eastern Partnership Countries Experts Workshop on “**Advanced High Temperature Materials for Core and Novel Energy Engineering**”, ISBN 978-92-79-19322-4, Luxembourg: Publications Office of the European Union.
8. **Nanosciences and Nanotechnologies**
Takis K. Vidalis, C.A. Charitidis
Series Editor: Th. K. Papachristou, L. Mitrou, T. K. Vidalis, Thanasis Xiros
Sakkoulas S.A., 2011
9. Co-author (total 35 authors) of the Review document ‘**Guidance Note for Researchers and Evaluators of Social Sciences and Humanities Research, 2010**’, Carmel Shalev, Johannes Rath, Caroline Gans-Combe, François Hirsh, Anna Giovanetti, Walter Hannak, David Morton, Rafaella Ravinetto, Ioannis Kioumis, Colin Thomson, Francesca Forestieri, Kristiane Weber-Hassemer, Mylène Botbol-Baum, Shamila Nair-Bedouelle, Norberto Partignani, Zbigniew Szawarski, Kris Dierickx, Jane Lamprill, David Townend, Pierre Mallia, Helen Busby, James A. Houghton, Anthony Lebeau, Takis-Panagiotis Vidalis, Aine De Roiste, **Constantinos Charitidis**, Igor Codreanu, Pascal Ducourau Meery Bullok, Søren Holm, Ursula Huws, Bjørn Hvinden, Ron Iphofen, Pierre Nederlandt, Sam Panicker.
The aim of this guidance note is to provide applicants and evaluators of Social Sciences and Humanities research projects with advice and practical guidance on dealing with the ethical aspects of Social Sciences and Humanities research.
ftp://ftp.cordis.europa.eu/pub/fp7/docs/ethical-guidelines-in-ssh-research_en.pdf
10. Co-author (total 12 authors) of the Review document ‘**Ethics Review-Lessons Learned, 2010**’, Joseph Schmucker-von-Koch, **Constantinos A. Charitidis**, François Hirsch, James A. Houghton, Janet Mifsud, David Morton, Siobhan O’Sullivan, Johannes Rath, Margit Sutrop, Isidoros Karatzas, Mihail Kritikos, Stefan De Vos.
European Commission, Research Directorate General, Unit L3-Governance and Ethics. Ethics Review Sector
<http://Europa.eu/sinapse/sinapse/index.cfm?&fuseaction=cmydoc.home>

11. **Nanotechnology Long-term Impacts and Research Directions: 2000-2020**, Springer, September 30, 2010, Copyright 2010 by WTEC (<http://www.wtec.org/nano2/>)
Chapter 12. Developing the Human and Physical Infrastructure to Advance Nanoscale Science and Engineering (pages 39-41).
12. **Nanotechnology Long-term Impacts and Research Directions: 2000-2020**, Springer, September 30, 2010, Copyright 2010 by WTEC (<http://www.wtec.org/nano2/>)
Chapter 11. Applications: High-performance Nanomaterials and Other Emerging Areas (pages 19-21).
13. Co-author (total 50 authors) European Commission report entitled "**Research Ethics: A comprehensive strategy on how to minimize research misconduct and the potential misuse of research in EU funded research**" (2010).
The aim of this document is to provide a strategy on how to safeguard EU funded research against misconduct and misuse. In a comprehensive approach the potential role and proposed actions of relevant stakeholders are addressed:
 - a. The EU Commission and its subsidiary institutions;
 - b. EU Ethics Screeners, Reviewers and Auditors;
 - c. Research project applicants, host institutions and national contact points.
14. Co-author (total 11 authors) in a Review Report: **ERR ASSESSMENT: Consistency of the Requirements in Ethics Review Reports**
James Houghton (Chair), Andrew Bottomley, Constantinos Charitidis, Caroline Gans Combe, David Morton, Timo Nevalainen, Norberto Patrignani, Johannes Rath, Joseph Schmuker-von-Koch, Mary Sharp, Margit Sutrop.
European Commission, Research Directorate General, Unit L3-Governance and Ethics. Ethics Review Sector, 2009
15. Co-author (total 12 authors) of the Review document '**Data protection and privacy ethical guidelines, 2009**', Andrew Bottomley, Duarte Carvalho-Oliveira, Costas A. Charitidis, Eva Del Hoyo-Barbolla, Anne Demoisy, Anna Giovanetti, Walter Hannak, James Houghton, David Morton, François Moutou , Jane Lamprill, Antony Lebeau, David Townend, and Mary Sharp, Isidoros Karatzas, Mihalis Kritikos, Yamina Cheikh, Paulette Matkovic Ramirez, Marie Cocquyt, Marco Michellini, Stefan de Vos and François Hirsch.
This document examines the major concepts of data protection and privacy from the point of view of research ethics. It aims at raising awareness about these concepts in the scientific community and at assisting applicants while preparing to submit their project proposals.
16. Co-author (total 12 authors) of the Review document '**ETHICS REVIEW-Lessons Learned, 2008**', James A Houghton, Regina Becker, Andrew Bottomley, Axel Carlberg, **Constantinos A Charitidis**, Anne Demoisy, Aine de Roist, Guy Ebinger, Erik Fosse, Caroline Gans-Combe, Johannes Rath, Myra Tilney.
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C. Publications in peer Reviewed Proceedings of International Conferences (100)

1. **Lubricity of carbon-based polymer nanocomposites via nanoindentation for interface assessment**
Elias P. Koumoulos, Costas A. Charitidis
Graphene Week 2017, 25-29 September, Athens, Greece

2. **Integrity and performance of graphene based sprayed electrodes for high performance supercapacitors**
Elias P. Koumoulos, A. F. A. Trompeta, Paolo Bondavalli, Costas A. Charitidis
Graphene Week 2017, 25-29 September, Athens, Greece
3. **An innovative route for advanced non-brittle Fe-Al based intermetallics**
W. Kochanek, C.A. Charitidis
E-MRS 2017 Fall Meeting (Symposium I: Solutions for Critical Raw Materials Under Extreme Conditions), 18-21 September 2017, Warsaw, Poland
4. **Nanoindentation study of carbon fiber reinforced epoxy matrix composites and local deformation inhomogeneities**
D.A. Dragatogiannis, P. Kavouras, D. Batsouli, C. Charitidis
17th International Conference on Experimental Mechanics, July 4-7, 2016 (Rhodes)
5. **Short- and Long-Term Efficacy Mesocosm Tests: a Novel Approach**
Eldad Gutner-hoch, Rachel Mailick, Michal Weis, Martin Axelsson, Aikaterini-Flora A. Trompeta, Costas A. Charitidis, Frederico Maia, João Tedim, Tania Teixeira, Severine B. Larroze, Yehuda Benayahu, 18th International Congress on Marine Corrosion and Fouling – ICMCF 2016, June 19-24, 2016 – Toulon, France
6. **The Mediterranean Sea Urchin *Paracentrotus lividus*: an effective embryotoxicity model**
Eldad Gutner-Hoch, Eirin Langseth, Michal Weis, Frederico Maia, João Tedim, Severine B. Larroze, Aikaterini-Flora Trompeta, Costas A. Charitidis, Yehuda Benayahu, 18th International Congress on Marine Corrosion and Fouling – ICMCF 2016, June 19-24, 2016 – Toulon, France
7. **Academic Integrity in Europe and Greece – Converging Paths?**
Panagiotis Kavouras, Costas Charitidis, Elias Koumoulos,
Integrity as a Way Forward, DERE – the American College of Greece in Athens, Greece, September 8-10, 2016.
8. **Friction Stir Welding of AA5083-H111 plates reinforced with a mixture of carbon nanotubes and silicon carbide particles.**
I.D. Pantelis, P.N. Karakizis, D.A. Dragatogiannis, C.A. Charitidis, D.I. Pantelis,
FEMS Junior Euromat 2016, July 10-14.
9. **Carbon nanotubes and antifouling coatings: sustainable synthesis, safe-by design and release assessment**
Aikaterini - Flora A. Trompeta, Vassileios Markakis, Elias P. Koumoulos, I.A. Kartsonakis, Costas A. Charitidis, 24th - 25th May 2016, European Technical Coatings Congress, National Exhibition Centre (NEC) in Birmingham
10. **Intrinsic healing protective coatings based on ionomers reinforced with nanocontainers**
I.A. Kartsonakis, E.K. Karaxi, A.-F. Trompeta, E. Koumoulos, C.A. Charitidis, 24th - 25th May 2016, European Technical Coatings Congress, National Exhibition Centre (NEC) in Birmingham
11. **Active screen plasma treatment and characterisation of carbon fibres: A feasibility study** Annual World Conference on Carbon - CARBON 2015 Dresden, July 12-17, 2015
S. Corujeira Gallo, M. Koklioti, P. Jagdale, E. P. Koumoulos, H. Dong, A. Tagliaferro and C. A. Charitidis
12. **Towards mass production of high quality multi-walled carbon nanotubes: An industrial safe-by-design and sustainable approach**
Annual World Conference on Carbon - CARBON 2015 Dresden, July 12-17, 2015

Malamatenia Koklioti, Dimitrios Perivoliotis, Pravin Jagadale, Irene Cannavaro, Miroslav Slouf, Maria Omastová, Alberto Tagliaferro, Elias Koumoulos, Constantinos Charitidis

- 13. Mechanical behaviour of carbon based structures synthesized by CVD**
4th International Conference of Engineering Against Failure. 24-26 June, 2015 - Skiathos island, D.K. Perivoliotis, M.A. Koklioti, E.P. Koumoulos, C.A. Charitidis
- 14. Evaluation of corrosion properties of dissimilar friction stir welded AA5083-H111 and AA6082-T6 reinforced with nanoadditives**
I.A Kartsonakis, D. Dragatogiannis, E. Koumoulos, A. Karantonis, C.A Charitidis
ICEAF IV. 4th International Conference of Engineering Against Failure. 24-26 June, 2015 - Skiathos island.
- 15. Evaluation of core-shell Mg-Al-NO₃ layered double hydroxides for chlorides entrapment**
I.A Kartsonakis, E.K. Karaxi, V. Chaleplis, C.A Charitidis, 4th International Conference of Engineering Against Failure. 24-26 June, 2015 - Skiathos island.
- 16. Determination of the single carbon fiber mechanical properties**
V. Tykhyy, O. Potapov, O. Samusenko, O. Karpicova, D. Dragatogiannis, C. Charitidis, 4th International Conference of Engineering Against Failure. 24-26 June, 2015 - Skiathos island.
- 17. Lignin as new precursors for the development of carbon fibers: co-blends and extrusion,**
- 18. S. Anagnou, E. Milioni, C. Mpalias, I.A. Kartsonakis, E.P. Koumoulos, C.A. Charitidis,** 4th International Conference of Engineering Against Failure. 24-26 June, 2015 - Skiathos island.
- 19. Nanomechanical and nanotribological properties of Epoxy based composites reinforced with carbon fibers,**
D. Dragatogiannis, D. Soulioti, C. Charitidis, 4th International Conference of Engineering Against Failure. 24-26 June, 2015 - Skiathos island.
- 20. Determination of stress-strain curves of friction stir welded joints by FEM and nanoindentation reverse analysis,**
D. Dragatogiannis, S. Skiadas, C. Charitidis, 4th International Conference of Engineering Against Failure. 24-26 June, 2015 - Skiathos island.
- 21. Investigation of structural and nanomechanical properties of cotton cloth carbon fabrics**
P. Jagadale, I. Cannavaro, M. Koklioti, E.P. Koumoulos, A. Tagliaferro, C. Charitidis
Go Carbon Fibre/ Eucarbon: CFRP For Space And New European Carbon Fibre Technologies Conference, Manchester UK, October 2015.
- 22. Functionalised Innovative Carbon Fibres and Nanofibers: Novel Precursors with Cost Efficiency and Tailored Properties**
Elias P. Koumoulos, M. Koklioti, S. Anagnou, E. Milioni, K. Mpalias, I. A. Kartsonakis, Costas A. Charitidis, EuroNanoForum Conference, Riga, Latvia 10-12 June 2015
- 23. Life cycle assessment as a prerequisite tool in maritime industry**
Nikoletta H. Vlachou, Aikaterini – Flora A. Trompeta, Haralampos Sarimveis, Costas A. Charitidis
International Conference Energy and Environment in Ships, May 22 - 24, 2015 Athens, Greece
- 24. Risk management of engineered nanomaterials in EU. The case of carbon nanotubes and carbon nanofibers,**
C.A. Charitidis, A.F. Trompeta, N.Vlachou, V.Markakis, 15th International Union of Materials Research of Societies, International Symposium on the Social Acceptance of

Engineered Nanomaterials (IUMRS - ICA) (2014).

25. **A Degradable Chitosan-graft-poly(ϵ -Caprolactone) Copolymeric Biomaterial Supports the Growth of Wharton's Jelly Mesenchymal Stem Cells for Soft Tissue Engineering**
A. Skarmoutsou, C. Charitidis, M. Kaliva, C. Pontikoglou, M. Vamvakaki, M. Chatzinikolaidou, 26th Annual Conference of European Society of Biomaterials (ESB), 2014
26. **Nanomechanical and tribological properties of plasma nanotextured surfaces for "smart" microfluidic devices**
D.A. Dragatogiannis, E. Koumoulos, K. Ellinas, A. Tserepi, E. Gogolides, C.A. Charitidis, 1st International Middle East Plasma Science (IMEPS) conference, Turkey April 23 – 25, 2014.
27. **Plasma treatment effect on Surface Properties of polylactic acid**
Dimitrios A. Dragatogiannis, Elias P. Koumoulos, Marian Valentin, Costas A. Charitidis, Igor Krupa, , 1st International Middle East Plasma Science (IMEPS) conference, Antalya, Turkey April 23 – 25, 2014.
28. **Effect of artificial solar radiation on the mechanical properties of multilayer plastic packaging materials**
Panagiota N. Eleni, Dimitrios A. Dragatogiannis, Magdalini K. Krokida, Constantinos A. Charitidis, Ioannis Ziomas
3rd International ISEKI Food Conference to be held in Athens, Greece, May 21-23, 2014
29. **Nanoindentation testing of a chitosan-graft-poly(ϵ -caprolactone) copolymer scaffold for soft tissue engineering (poster)**
A. Skarmoutsou, D. Dragatogiannis, M. Kaliva, C. Pontikoglou, M. Vamvakaki, M. Chatzinikolaidou, C.A. Charitidis Materials Today: Virtual Conference Biomaterials, 19-21 November 2013
30. **Nanoindentation Analysis of Composite Engineering Materials**
E.P. Koumoulos, C. A. Charitidis
EUROFILLERS 2013: 10th anniversary meeting, 25-29 August 2013, Bratislava, Slovakia
31. **Nanomechanical Properties of Extruded Poly(Lactic) Acid Foils Treated in air and argon plasma atmosphere**
M. Valentin, A. Skarmoutsou, M. Omastova, C.A. Charitidis, I. Krupa
EUROFILLERS 2013: 10th anniversary meeting, 25-29 August 2013, Bratislava, Slovakia
32. **The influence of nanotraps and nanocontainers into multilayer coatings for corrosion protection of Mg alloy ZK30**
I.A. Kartsonakis, D. Caraksis, D.A. Dragatogiannis, C.A. Charitidis, G. Kordas
Eurocorr: European Corrosion Congress, 1-5 September 2013, Estoril, Portugal
33. **Multilayer epoxy coatings including nanotraps and nanocontainers for corrosion protection of AA2024-T3**
I.A. Kartsonakis, E. Athanasopoulou, D. Snihirova, M.F. Montemor, C.A. Charitidis, G. Kordas
Eurocorr: European Corrosion Congress, 1-5 September 2013, Estoril, Portugal
34. **Air plasma treatment and deposition of acrylic acid effect on the nanomechanical properties of extruded poly(lactic) acid foils**
A. Skarmoutsou, M. Valentin, M. Omastova, C.A. Charitidis
Nano Measure 2013, Scientific symposium at 25 – 26 June 2013 at the University of Warsaw in Poland
35. **Evaluation of mechanical properties of dissimilar friction stir welded aluminum alloys through micro- and nano-indentation techniques**

C.A Charitidis, D.K. Perivoliotis, E.P. Koumoulos, D.A. Dragatogiannis, I.A. Kartsonakis, D. Pantelis, N.M Daniolos, P. N. Karakizis
ICSAAM 2013, 5th International Conference on Structural Analysis of Advanced Materials 23 - 26 September 2013, Island of Kos, Greece

36. **Encapsulation of CaCO₃-producing bacterial strains into containers for cement self-restoration**
Eleni K. Efthimiadou, Eleni Milioni, Ioannis A. Kartsonakis, George S. Pappas, Amalia Skarmoutsou, **Costas A. Charitidis**, George Kordas
3rd International Conference of Engineering Against Failure. Kos (Greece), 26-28 June, 2013.
37. **Multilayer Epoxy Coatings Including Nanotraps and Nanocontainers for Corrosion Protection of HDG Steel**
Ioannis A. Kartsonakis, Dimitris Perivoliotis, Anna-Maria Routsis, **Costas A. Charitidis**, George Kordas
3rd International Conference of Engineering Against Failure. Kos (Greece), 26-28 June, 2013.
38. **Study of corrosion of copper in industrial cooling systems**
I.A.Kartsonakis, E.P. Koumoulos, A. Karantonis, G.Kordas, **C.A.Charitidis**, S. Dessypris, A. Monos
3rd International Conference of Engineering Against Failure. Kos (Greece), 26-28 June, 2013.
39. **The Influence of Nanotraps and Nanocontainers into Hybrid Organic-Inorganic Coatings for Corrosion Protection of Mg ZK30**
Ioannis A. Kartsonakis, Danalia Caraksis, **Dimitris A. Dragatogiannis**, Costas A. Charitidis, George Kordas
3rd International Conference of Engineering Against Failure. Kos (Greece), 26-28 June, 2013.
40. **Corrosion investigation and evaluation of mechanical and structural properties of powder coatings for industrial-domestic applications**
Costas A. Charitidis, Elias P. Koumoulos, Ioannis A. Kartsonakis, George Kordas, George Vlachakis, Michael Vlachakis
3rd International Conference of Engineering Against Failure. Kos (Greece), 26-28 June, 2013.
41. **Orientation effects in nanomechanical properties of Ni: an experimental study**
Dimitrios A. Dragatogiannis, Elias P. Koumoulos, **Costas A. Charitidis**
3rd International Conference of Engineering Against Failure. Kos (Greece), 26-28 June, 2013.
42. **Nanoindentation analysis of light-weighted magnesium and aluminum alloys**
C.A. Charitidis, A. Skarmoutsou, E.P. Koumoulos, G. Kotsikos, D.I. Pantelis, M. Robinson, Sp. G. Pantelakis
3rd International Conference of Engineering Against Failure. Kos (Greece), 26-28 June, 2013.
43. **Synthesis, structural and nanomechanical properties of cobalt based thin films**
C.A. Charitidis, V.P. Tsikourkitoudi, E.P. Koumoulos, I.A. Kartsonakis, N. Papadopoulos, Evangelos Hristoforou
3rd International Conference of Engineering Against Failure. Kos (Greece), 26-28 June, 2013.
44. **Nanomechanical properties of plasma-treated polylactic acid for packaging applications Nanobrücken-Dresden,**
A Nanomechanical Testing Workshop & Hysitron User Meeting In cooperation with Dresden Fraunhofer Cluster Nanoanalysis (DFCNA) and Dresden Center for Nanoanalysis (DCN) of TU Dresden March 20-22, 2013. Elias P. Koumoulos, Marian Valentin, Dimitrios A. Dragatogiannis, Costas A. Charitidis, Igor Krupa and Igor Novak.
45. **Hybrid Multilayer Coatings Including Nanotraps and Nanocontainers for Corrosion Protection of HDG Steel**

Ioannis Kartsonakis, Dimitris Perivoliotis, Costas Charitidis, George Kordas
The XVII International Sol-Gel Conference, Madrid, Spain, from Sunday 25 to Friday 30 August 2013.

- 46. The influence of nanotraps and nanocontainers into multilayer coatings for corrosion protection of Mg alloy ZK30**
I.A. Kartsonakis, D. Carakasis, D.A. Dragatogiannis, C.A. Charitidis, G. Kordas
“EUROCORR 2012 - The European Corrosion Congress”, September 1 - 5, 2013, Estoril, Portugal.
- 47. Multilayer Epoxy Coatings Including Nanotraps and Nanocontainers for Corrosion Protection of AA2024-T3**
I.A. Kartsonakis, E. Athanasopoulou, M.F. Montemor, C.A. Charitidis, G. Kordas
“EUROCORR 2012 - The European Corrosion Congress”, September 1 - 5, 2013, Estoril, Portugal.
- 48. Corrosion resistance of magnesium alloy ZK10 coated with hybrid organic-inorganic film including containers**
I.A. Kartsonakis, A.C. Balaskas, E. Koumoulos, C.A. Charitidis, G. Kordas, “EuroCORR 2012 - The European Corrosion Congress”, 9-13 September 2012, Istanbul, Turkey
- 49. Hybrid organic-inorganic coatings including containers for corrosion protection of magnesium alloy ZK10**
I.A. Kartsonakis, A.C. Balaskas, C.A. Charitidis, G. Kordas, International Conference on Nanostructured Materials, NANO2012, 26-31 August 2012, Rhodes, Greece
- 50. Particle modified consolidants in the consolidation of porous stones**
E. Ksinopoulou, A. Bakolas, I.A. Kartsonakis, C.A. Charitidis, A. Moropoulou
12th International Congress on the Deterioration and Conservation of Stone, 22-26 October 2012, Columbia University, New York City
- 51. Nanomechanical characterization of electrodeposited nickel containing silicon carbide nanodispersions**
A. Sohrabi, A. Dolati, M. Ghorbani, V.P. Tsikourkitoudi, E.P. Koumoulos, I.A. Kartsonakis, P. Stroeve, C.A. Charitidis
9th International Conference on Nanosciences & Nanotechnologies (NN12), 3-6 July 2012, Thessaloniki, Greece
- 52. Designed Fabrication Of A Multifunctional Polymer Nano-Platform For Dual Activated Controlled Drug Release**
9th International Conference on Nanosciences & Nanotechnologies (NN12) 3-6 July 2012, Thessaloniki, Greece
Panayiotis Bilalis, Alexandros Chatzipavlidis, Leto-Aikaterini Tziveleka, Nikos Boukos, C.A. Charitidis and George Kordas
- 53. Structural and mechanical properties of 7075-T651 aluminum alloy with incorporation of Al₂O₃ nanoparticles through Friction Stir Processing**
9th International Conference on Nanosciences & Nanotechnologies (NN12) 3-6 July 2012, Thessaloniki, Greece
V. Antonakaki, E. P. Koumoulos, P. K. Diamantopoulos, D. I. Pantelis, C.A. Charitidis
- 54. Multifunctional nanocontainers for combination of various nanomedicinal modalities**
9th International Conference on Nanosciences & Nanotechnologies (NN12) 3-6 July 2012, Thessaloniki, Greece
A. Chatzipavlidis, P. Bilalis, L.-A. Tziveleka, N. Boukos, G. Kordas and C.A. Charitidis
- 55. Nanomechanical integrity, structural analysis and thermal stability of Cu Al₂O₃ nanocomposites for FGM application**

9th International Conference on Nanosciences & Nanotechnologies (NN12) 3-6 July 2012, Thessaloniki, Greece
E. P. Koumoulos, A. Tsetsekou, C.A. Charitidis, I.A.Kartsonakis, A. Bakolas, N.M. Daniolos, K. Pietrzak

- 56. Structural investigation and mechanical integrity of metal and metal oxide thin films for sensing applications: A comparative study through nanoindentation**
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V. P. Tsikourkitoudi, E.P. Koumoulos, I.A. Kartsonakis, C.A. Charitidis
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- 58. Ternary delta-TixTa1-xN: An addition to superhard materials?**
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L.E. Koutsokeras, A. Skarmoutsou, G. Abadias, P. Psyllaki, C.A. Charitidis, Ch.E. Lekka, P. Patsalas
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M. Kandyła, C. Chatzimanolis, V. Tsikourkitoudi, I.A. Kartsonakis, I. Hotovy, C.A. Charitidis, M. Kompitsas
- 60. Mechanical Properties of hybrid materials**
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