

## CURRICULUM VITAE

### CHARITIDIS CONSTANTINOS

Professor, Dr

Nanoengineering & Nanotechnology  
School of Chemical Engineering  
National Technical University of Athens (NTUA)



#### Personal Details:

<b>Surname</b>	CHARITIDIS
<b>First name</b>	CONSTANTINOS
<b>Affiliation and official address</b>	Professor, Dr, NTUA Ethics Committee Representative Deanship of School of Chemical Engineering Member of ELIDEK General Assembly School of Chemical Engineering 9 Heroon Polytechniou St., Zographos, Athens, Greece GR-157 73
<b>Number of identify card</b>	AE 318636
<b>Tel.</b>	+30 210 7724046, +30 6974 329556
<b>E-mail</b>	charitidis@chemeng.ntua.gr
<b>Date and place of birth</b>	30/03/1966 - Greece
<b>Nationality</b>	Greek
<b>Website</b>	nanolab.chemeng.ntua.gr, earthnet.ntua.gr

#### 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.

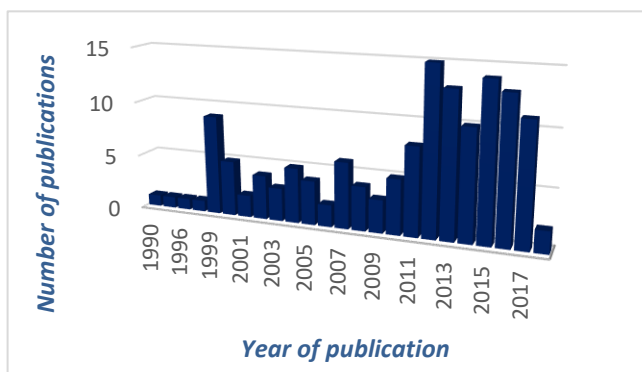
- **Social & Safety impacts of Nanotechnology and risk assessment**, Forecasting, technological assessment, sustainability studies in nanotechnology, Research Integrity, Nanosafety: Regulatory issues on nanomaterials.

### Recent research interests:

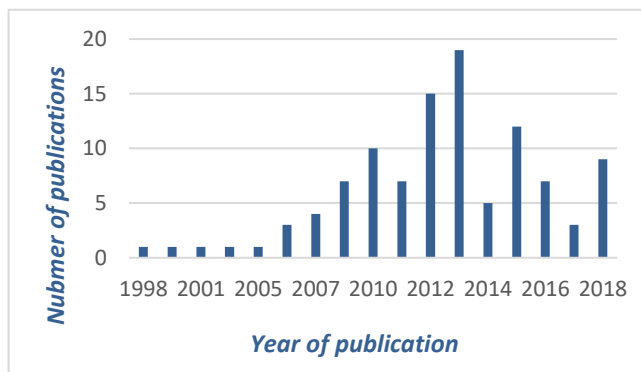
- Nanomechanical characterization of nanocomposites for bioapplications (prosthetics, tissues engineering) and nanostructures:
  - Development of proper experimental protocols for the measurement of nanomechanical properties of soft materials and mathematical models (viscoelastic/ time-dependent behavior).
  - 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
- Ethics in research and innovation

### Publications and publication metrics:

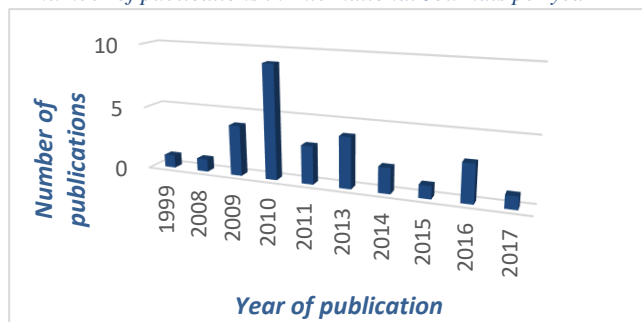
Publications in International Journals : **136**  
 Publications in peer Reviewed Proceedings : **108**  
 Publications in Books and others : **29**  
 Citations > **3236**  
 h-index : **32** (according google scholar)



Number of publications in International Journals per year



Number of publications in peer Reviewed Proceedings of International Conferences per year

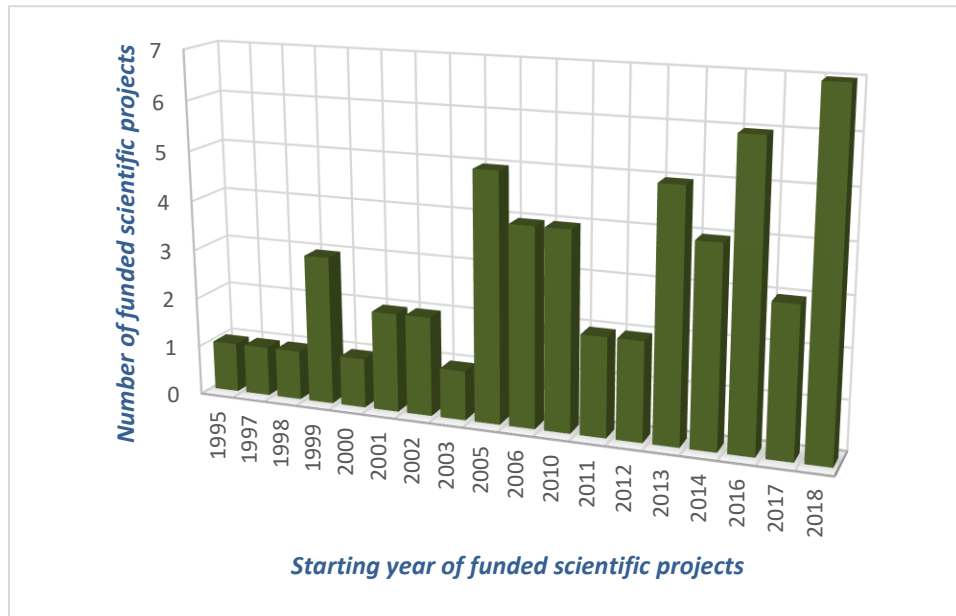


Number of publications in books and other publications per year



## Participation in funded projects metrics

- Participation in national and EU funded projects as coordinator : **11 (Total budget: 34,105,000.00€)**
- Participation in national and EU funded projects as beneficiary : **43 (Total budget: 80,500,000.00€)**
- Participation in national and EU funded projects as Project Technical Advisor : **19 (Total budget: 95,300,000.00€)**



## 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:

- 2018- Vice Dean of School of Chemical Engineering (NTUA)
- 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 53 **PhDs** (13 PhDs as Supervisor - 6 have been completed).  
 Member in *supervision committee* of 61 **MSc** theses (30 MSc as Supervisor - 25 have been completed).  
 Member in *supervision committee* of 65 **BSc** theses (40 BSc as Supervisor - 40 have been completed).

### Further Academic Activity:

- 2017-Today Teaching the course of Biomechanics in the framework of the Interdisciplinary Postgraduate (MSc) Program: Computational Mechanics (NTUA)
- 2011-Today Director of the Interdisciplinary Postgraduate (MSc) Program: Materials Science & Technology (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”** 10<sup>th</sup> 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”** 7<sup>th</sup> 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  
**8<sup>th</sup> 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  
**6<sup>th</sup> 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,  
**1<sup>st</sup> 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  
**1<sup>st</sup> 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 Chemical Engineering Journal
- 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.

### B. Member of Scientific Committees/Clusters

- One of the two Greek representatives** for Mutual Learning Exercise (MLE) (H2020 Policy Support Facility) on "Research Integrity"
- 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 Committee** 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 Commission 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 Scientific Committee of PESXM: Panhellenic Scientific Chemical Engineering Congress
- Member** of the Scientific Committee of AUTEX2019: Textiles at the Crossroads, Ghent, Belgium 11-15 June 2019
- Chair** of "Experimental and Computational Toxicological Evaluation of Engineering Nanomaterials" session of the OPENTOX EURO 2018 Conference, Athens, Greece, October 10-11, 2018
- Chair** of "Nano-/micro-composites by design: methodologies and tools for enhanced properties against performance/reliability failure" session of the 5<sup>th</sup> ICEAF, Chios, Greece, June 20-22, 2018

**Member** of the Scientific Committee of the 18th Concrete Workshop, 29-31/03/2018  
**Member** of the Scientific Committee of the 13th Paints Symposium, 15-16/03/2018  
**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 7<sup>th</sup> 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**

**External reviewer** for the 2nd Call of Leading Fellows Postdoc Programme  
**Reviewer** of the Science & Engineering Research Council (SERC), Agency for Science, Technology and Research (A\*STAR) in Singapore, Singapore’s Ministry of Trade and Industry to drive mission-oriented research that advances scientific discovery and technological innovation.  
**Evaluator** for proposals in FLAG-ERA Joint Transnational Call 2017 (Graphene)  
**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.  
**Reviewer** of Books (for Micro and Nano Technology books: Advanced Nanomaterials Series), Elsevier  
**Reviewer** in Symposia F and G 41<sup>st</sup> 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 (JRP), 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)

## Referee in International Journals (84) :

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](http://www.igi-global.com/ijseims)
31. Referee in International peer-reviewed Journal Sensors (ISSN 1424-8220; CODEN: SENSC9), 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 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. International Journal of Nanomedicine and Nanosurgery
66. 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.
67. Surface and Interface Analysis
68. Materials and Design
69. Materials Express and Materials and Design
70. Progress in Organic Coatings Coatings
71. Journal of Industrial & Engineering Chemistry Research
72. International Journal of Industrial Chemistry
73. Microelectronic Engineering
74. Polymer Composites
75. Colloids and Surfaces A: Physicochemical and Engineering Aspects
76. Nanoscale Research Letters
77. Composites Part A
78. Journal of Mechanical Engineering Science
79. International Journal of Electrochemistry
80. Journal of Nanoscience and Nanotechnology
81. Arabian Journal of Chemistry
82. Environmental Science: Nano, published by the Royal Society of Chemistry
83. Nano-Micro Letters
84. Journal of Cleaner Production

## Invitations

1. Invited speaker to the 6<sup>th</sup> Hellenic Forum for Science and Technology, to the Symposium on nanosafety with oral presentation entitled “The Greek Nanosafety Platform”, 10/07/2018, Athens, Greece
2. Invited speaker to the European Materials Characterisation Council meeting on “Support and coordination of EU actions on advanced materials characterization with oral presentation entitled “Preparation of CHADA, Ontology and Data Management”, 11/06/2018, Brussels, Belgium

3. Invited speaker to “Materials Ontology” Workshop with oral presentation entitled “Existing ontologies: Characterisation (design and standard protocols)”, 29/06/2018, Brussels, Belgium
4. Invited speaker to 1st Dresden International Colloquium on Tailored Carbon Fibres, with oral presentation entitled “Green precursors, fibre surface and matrix modification of CF’s and CFRP’s: from raw materials to smart and intelligent structures”, 03-04/05/2018, Dresden, Germany
5. Invitation to the Scientific Conference "Ethical Challenges in Organic Research", Athens, November 30, 2017
6. 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.
7. Invited to participate to the Scientific Evaluation Panel (SEP) for the “Graphene – Applied Research & Innovation (ARI)” topic
8. 29/11/ 2016: Trilateral EU-US-Japan Conference on Critical Raw Materials, BREYDEL Building - Auditorium, Brussels.
9. 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”.
10. 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
11. 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
12. Invitation to act as co-Editor in the research book "Smart Carbon based Materials" (De Gruyter)
13. Invitation to act as Editor and co-author in the research book "Nanomaterials in Joining" (De Gruyter)
14. 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
15. 18/09/2015: participation in International Colloquium on Composite Materials: how carbon composites are revolutionizing our world!, Brussels--University Foundation.
16. 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.
17. 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, Barchelona, Spain, Title of lecture: “Recent advancements in carbon-based materials”
18. 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.

19. 05/11/2014: Invitation by Karl Hoehener, Temas AG to participate in the Workshop: “Innovation meets Regulation”, Rotterdam, The Netherlands
20. 09/10/2014: Invitation to participate in the 1st Nanomechanics inc. user meeting, Rome, October 9th 2014, Roma TRE University
21. 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”
22. 24-30/8/2014: Invitation by Dr. Kun’ichi Miyazawa to visit the National Institute for Materials Science (NIMS), Ibaraki, Japan.
23. 24-28/8/2014: Invitation to give a lecture to the 15<sup>th</sup> 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”
24. 27-28/1/2014: Invited by The Interdisciplinary Research Center for Cooperative Functional Systems, Münster University. Title: “Risk assessment on ENPs exposure”
25. 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”
26. 23-25/4/2014: Invitation to participate in the Scientific Committee of the 1st International Middle East Plasma Science (IMEPS) Conference, Belek-Antalya, Turkey.
27. 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”
28. 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”
29. 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”
30. 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”
31. 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.
32. 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”
33. 'Roadmap for Metallurgy Made in and for Europe', Meetings 30/9, 7-8/10, 10-11/12/2013 in Brussels
34. 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"

35. 1<sup>st</sup> Conference on Defense Technology Applications, Nanotechnology and Advanced Materials-Innovation and Evolution, C.A. CHARITIDIS
36. 21 May 2013 CRF FIAT, Orbassano, Turin, ITALY New nano manufacturing routes for printed electronics, surface coatings, health & medical and hybrid polymers
37. 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
38. 3-4/4/2013: Invitation to give a lecture in Vienna, entitled "Atomic Force Microscopy as a tool for investigation of nanomechanical properties"
39. 4-5/4/2013: Invitation to give a lecture in Bergen, entitled "Nanomechanical properties of soft matter"
40. 13-14/3/2013: Invitation to give a lecture in TWI Ltd, Cambridge, United Kingdom, entitled "Nanoengineering & nanomechanical properties of joints"
41. 21-22/3/2013: Invitation to give a lecture in University of Parma, Faculty of Medicine entitled "Nanotechnology perspectives in health"
42. 25-29/08/2013: Invitation to give a lecture in Eurofillers International Conference, entitled "Nanoindentation analysis of engineering materials"
43. 27-28/11/ 2012: Workshop on Safe handling of nanomaterials at workplaces: Practical Guidance for the Safe Use of Nanomaterials BAuA (Bundesanstalt fur Arbeitsschutz und Arbeitsmedizin) Berlin, GERMANY.
44. 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".
45. 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).
46. 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)
47. 6-9/05/2012: Invitation to participate in the Scientific Committee during the 19<sup>th</sup> International Scientific and Technical Conference, Kontech, entitled: "Advanced forming technologies and nanostructured materials".
48. Invited presentation by Nanocarb Laboratory, Joint team, Ecole Polytechnique/Thales THALES RESEARCH AND TECHNOLOGY for a seminar which the title of will be defined.
49. 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).
50. 30/3/2012: Invitation to give a lecture by University of Picardie Jules Verne, France Lecture Title: Nanomechanical properties of complex materials.
51. 22/3/2012: Invitation to give a lecture by Technical University Darmstadt, Germany Lecture Title: Nano-crack initiation and propagation in multilayered structures.
52. 20/3/2012: Invitation to give a lecture by Microsharp Corporation Ltd, Great Britain Lecture Title: Nanoengineering of metal parts for micro- nano- electronics.

53. Invitation to submit an article to the second annual Special Issue “Nanocomposites 2012” which will be published in Journal of Nanotechnology.
54. 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.
55. 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”.
56. 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”.
57. Invitation to give a lecture in the 1<sup>st</sup> Annual Congress of Nano-S&T, a dedicate event for Nanoscience and Nanotechnology Professionals (October 23-26, 2011).
58. 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".
59. 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).
60. Invitation to participate in the 1<sup>st</sup> 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”.
61. 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), license number of project: Stage 1 CFPF 228916-1 in Bratislava, Slovakia from March 22 to 24, 2011.
62. 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.
63. 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 Azerbaijan.  
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)
64. Invited by the Ethics Review Sector DGRTD 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

65. 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”.

66. 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

67. Invited in the 6<sup>th</sup> 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”

68. 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”.

69. 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”

70. Invited presentation in ICEAF, 1<sup>st</sup> International Conference of Engineering Against Fracture, 28-30 May 2008, University of Patras, Greece, Lecture Title: “Fracture and failure in micro- and nano- scale”

71. Governance and Ethics of Nanotechnology

International conference, Brussels, 7-8 May 2008-05-09 Venue: Jean Monnet Room, Berlaymont Building

Participation by invitation

72. 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

73. 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
74. Invited in the 6<sup>th</sup> 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”
75. 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”
76. Invitation for participation in the 36M meeting of MUST program, Lecture on 'Self-healing nanomaterials', Helsinki, June 14-16, 2011.
77. 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
78. Invited in the 6<sup>th</sup> 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
79. Invited in the National Centre for Scientific Research ‘Demokritos’, Institute of Microelectronics, September 2004  
Lecture Title: “Advances in Nanomechanics & Nanoengineering”
80. 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”
81. 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. Virtue Based Ethics And Integrity Of Research : Train-The-Trainer Program For Upholding The Principles And Practices Of The European Code Of Conduct For Research Integrity  
 Title: Virt2ue  
 Source of funding: EC  
 Budget: 2,800,000.00 €  
 Name of the coordinating person: Dr. Guy Widdershoven
  
2. Promoting Integrity In The Use Of Research Results  
 Title: PRO-RES  
 Source of funding: EC  
 Budget: 2,800,000.00 €  
 Name of the coordinating person: Dr. Emmanouil Detsis
  
3. Best Practice For Identifying And Assessing The Dual-Use Issues In Enabling Technologies Research  
 Title: JANUS  
 Source of funding: EC  
 Budget: 53,000.00€  
**Name of the coordinating person: Prof. Costas Charitidis**
  
4. 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**
  
5. 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**
  
6. 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
  
7. 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
  
8. Biomaterial Risk Management  
 Title: BIORIMA  
 Source of funding: HORIZON 2020  
 Budget: 9 M €  
 Name of the coordinating person: Prof. Lang Tran
  
9. 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

10. 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
11. 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
12. 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**
13. 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**
14. 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**
15. 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
16. 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
17. 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
18. '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**

19. '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
20. '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**
21. '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
22. 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**
23. 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**
24. 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**
25. 'Enhancing Structural eEfficiency 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
26. 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)  
Name of the coordinating person: Dr. Georgios Kordas
27. 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

- 28.** 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”
- 29.** Synthesis of nanostructures and investigation of their properties for bioengineering applications (Code: 133), Call Hraklitos II (2010-2013),  
Budget: 45000 € (Hellenic Ministry of Education)
- 30.** Synthesis of nanocontainers and investigation of their properties for medical applications (Code: 134), Call Hraklitos II (2010-2013),  
Budget: 45000 € (Hellenic Ministry of Education)
- 31.** 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)
- 32.** ‘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 €
- 33.** 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, TUV-IMC, Technion, UNINA
- 34.** 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
- 35.** Scientific responsible in the project: ‘Scientific Research Infrastructures’, E.P.E.A.E.K. II  
Budget: 150000 Euro
- 36.** Scientific responsible for the proposal ‘Research Laboratory for Advanced Materials & Materials Systems’  
Budget: 50000 Euro
- 37.** Scientific responsible in the project: ‘Management of solid industrial waste products’, E.P.E.A.E.K. II,  
Budget: 50000 Euro
- 38.** Participation (Member of the research team) in the project: ‘Nanostructured metallic glasses for thermo mechanical applications in harsh environments, Pythagoras II

39. Participation (Member of the research team) in the project: ‘Engineering of simulated toxic wastes’, Pythagoras II
40. 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
41. 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
42. “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.
43. “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€.
44. “Nanomechanics, Nanoindentation and Nanofilms” PENED 2001 (2002-2005)  
Budget 145 K€
45. Spin-off: ‘NanoCoat’ for the Production of advanced nanocoatings in Surface Engineering, Microdevices, Optical & Electronic devices and Biocompatible systems’.
46. Joint RTD Programme (2003-2005) Greece-Germany, “Development of transparent barrier films on membranes. Study of the adhesion and interface properties” AUTH-FhG-IVV
47. “Surface engineering by plasma techniques, ionic sources, and laser beams” PAVET 00BE21, Industrial Project (2001 – 2003),  
Budget 146 K €.
48. “Development of a pilot vacuum chamber with plasma spray deposition technique for surface treatment and recapping” PAVE 99BE392, Industrial Project (1/2000- 6/2001)
49. “Multiwavelength sensor for sub-micron particle analysis (Multisens)” CRAFT (2/1999- 7/2001)  
Budget 832 K€ (AUTH: 100 K€).
50. “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€) .
51. “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.
52. “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.
53. “Nanostructured Materials, Characterization-Fundamentals)“ COST, Action 523 (1999-2002)
54. “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 (136)

- 1. Synthesis of hafnium nanoparticles and hafnium nanoparticle films by gas condensation and energetic deposition**  
Irimi Michelakaki, Nikos Boukos, Dimitrios A. Dragatogiannis, Spyros Stathopoulos, Costas A. Charitidis and Dimitris Tsoukalas, *J. Nanotechnol.* 2018, 9, 1868–1880
- 2. Additive manufacturing: scientific and technological challenges, market uptake and opportunities**  
Syed A.M. Tofail, Elias P.Koumoulos, Amit Bandyopadhyay, Susmita Bose, Lisa O'Donoghue, Costas Charitidis, *Materials Today*, Volume 21, Issue 1, January–February 2018, Pages 22-37
- 3. Dynamic Air-Brush Deposition Method for the New Generation of Graphene Based Supercapacitors**  
Paolo Bondavalli, Gregory Pognon, Elias Koumoulos, Costas Charitidis, *Materials Research Society* (2018)
- 4. Additive (nano)manufacturing perspectives: the use of nanofillers and tailored materials**  
Elias P. Koumoulos, Eleni Gkartzou and Costas A. Charitidis, *Manufacturing Rev.* 4, 12 (2017)
- 5. 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.Bemporad, M.Sebastiani, C.A.Charitidis, *Materials & Design* Volume 137 (2018)
- 6. 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)
- 7. Lubricity Assessment, Wear and Friction of CNT-Based Structures in Nanoscale**  
E.P. Koumoulos, Costas A. Charitidis, *Lubricants*, 5 (2017)
- 8. 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)
- 9. 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)
- 10. 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)
- 11. Nanomechanical properties and thermal decomposition of Cu-Al<sub>2</sub>O<sub>3</sub> composites for FGM applications.**  
Koumoulos, E. P., Kartsonakis, I. A., Bakolas, A., & Charitidis, C. A. *Manufacturing Review*, 3, 20 (2016)
- 12. 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)

- 13. 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).
- 14. 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).
- 15. Chloride ion entrapment by calcined layered double hydroxides**  
Karaxi, E., Kartsonakis, I. A., & Charitidis, C. A. International Journal of Structural Integrity, 7(6), (2016).
- 16. 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).
- 17. Nanomaterial ontologies for nanosafety: A rose by any other name...**  
Editorial by: Eugenia Valsami-Jones, Iseult Lynch and Costas A. Charitidis  
Journal of Nanomedicine Research, 3(6),1-3 (2016).
- 18. Nanomechanical performance of protective coatings reinforced with core/shell composite materials**  
Koumoulos, E. P., Dragatogiannis, D. A., Kartsonakis, I. A., Karaxi, E., Kehagias, Th., Charitidis, C. A., International Journal of Structural Integrity, 7(5), 671-689 (2016).
- 19. Investigation of MWCNT addition into poly- dimethylsiloxane-based coatings**  
E. P. Koumoulos, Th. Parousis, A.-F. A. Trompeta, I. A. Kartsonakis and C. A. Charitidis (2016)  
Plastics, Rubber and Composites, 45:3, 106-117, (2016)
- 20. Evaluation of polymer composites based on core/shell polystyrene/Mg–Al–NO<sub>3</sub> layered double hydroxides for chloride entrapment**  
A. Kartsonakis, K. Karaxi, C. A. Charitidis, Plastics, Rubber and Composites, 45(2),50-57(2016).
- 21. Risk management of engineered nanomaterials in EU-The case of carbon nanotubes and carbon nanofibers: A review.**  
Charitidis, C. A., Trompeta, A. F., Vlachou, N., & Markakis, V, Transactions of the Materials Research Society of Japan, 41(1), 1-11 (2016).
- 22. Effect of magnetite particle loading on mechanical and strain sensing properties of polyester composites**  
Dragatogiannis, D.A., Perivoliotis, D.K., Karagiovanaki, S., Zoumpoulakis, L., Charitidis, C.A.  
Meccanica, 51 (3), pp. 693-705 (2016).
- 23. Toxicity determinants of multi-walled carbon nanotubes: The relationship between functionalization and agglomeration**  
Allegri, M., Perivoliotis, D.K., Bianchi, M.G., Chiu, M., Pagliaro, A., Koklioti, M.A., Trompeta, A.F.A., Bergamaschi, E., Bussolati, O., Charitidis, C.A.  
Toxicology Reports, 3, 230-243 (2016).
- 24. Microstructural study and mechanical properties of dissimilar friction stir welded AA5083-H111 and AA6082-T6 reinforced with SiC nanoparticles**  
Pantelis, D.I., Karakizis, P.N., Daniolos, N.M., Charitidis, C.A., Koumoulos, E.P., Dragatogiannis, D.A.  
Materials and Manufacturing Processes, 31 (3), 264-274 (2016).

- 25. Nanotechnology and the Applications in Life Science**  
 Costas A. Charitidis Int J Nanomed Nanosurg, Volume1.1: <http://dx.doi.org/10.16966/2470-3206.e101> (2015).
- 26. Hydrogel-Based Nanostructured 3D Scaffolds for Bone Tissue Regeneration: Properties and Tools**  
 Brasinika D, Dragatogiannis D, Charitidis CA Int J Nanomed Nanosurg 2(1):doi <http://dx.doi.org/10.16966/ijnn.e103> (2015).
- 27. Strategies towards Novel Carbon Fiber Precursors: the Research Results on the Synthesis of PAN Copolymers via AGET ATRP and on Lignin as a Precursor**  
 Spyridon Soulis, Stavros Anagnou, Eleni Milioni, Costas Mpalias, Ioannis Kartsonakis, Irene Kanellopoulou, Vassilis Markakis, Elias P. Koumoulos, Evangelia Kontou and Costas A. Charitidis  
 doi: 10.17756/nwj.2015-011 (2015).
- 28. Nanoscale Mechanical and Tribological Properties of Plasma Nanotextured COP Surfaces with Hydrophobic Coatings**  
 Dragatogiannis, D.A., Koumoulos, E., Ellinas, K., Tserepi, A., Gogolides, E., Charitidis, C.A.  
 Plasma Processes and Polymers, 12 (11), 1271-1283 (2015).
- 29. Evaluation of surface properties of epoxy-nanodiamonds composites**  
 Koumoulos, E.P., Jagadale, P., Lorenzi, A., Tagliaferro, A., Charitidis, C.A.  
 Composites Part B: Engineering, 80, 27-36 (2015).
- 30. Evaluation of the protective ability of typical corrosion inhibitors for magnesium alloys towards the Mg ZK30 variant**  
 Kartsonakis, I.A., Stanciu, S.G., Matei, A.A., Karaxi, E.K., Hristu, R., Karantonis, A., Charitidis, C.A.  
 Corrosion Science, 100,194-208 (2015).
- 31. Study of corrosion of copper in industrial cooling systems**  
 Kartsonakis, I.A., Koumoulos, E.P., Karantonis, A., Charitidis, C.A., Dessypris, S., Monos, A.  
 International Journal of Structural Integrity, 6 (5), 617-635 (2015).
- 32. Nanomechanical properties of plasma treated polylactic acid**  
 E. P. Koumoulos, M. Valentin, D. A. Dragatogiannis, C. A. Charitidis, I. Krupa and I. Novak  
 Plastics, Rubber and Composites, 44(8), 322-329 (2015).
- 33. Influence of electrochemical copolymerization conditions of 3-methylthiophene and biphenyl on the morphology and nanomechanical properties of the films**  
 Triantou, D., Soulis, S., Perivoliotis, D., Charitidis, C.  
 Journal of Applied Polymer Science, 132 (38), art. no. 42575 (2015).
- 34. Synthesis, structural and nanomechanical properties of cobalt based thin films**  
 Elias P. Koumoulos, Vasiliki P. Tsikourkitoudi, Ioannis A. Kartsonakis, Vassileios E. Markakis, Nikolaos Papadopoulos, Evangelos Hristoforou, Costas A. Charitidis  
 International Journal of Structural Integrity 6(2) 225-242 (2015).
- 35. Influence of preparation methods on the electrical and nanomechanical properties of poly(methyl methacrylate)/multiwalled carbon nanotubes composites**  
 Katarína Mosnáčková, Zdenko Špitálský, Jaroslav Kuliček, Jan Prokeš, Amalia Skarmoutsou, Costas A. Charitidis, Mária Omastová Journal of Applied Polymer Science, 132(13) (2015).
- 36. Synthesis and Characterization of Electrochromic Films Based on 2,5-Bis (2-(3,4-ethylenedioxy)thienyl)pyridine**  
 D.Triantou, C.S. Asaftei, S. Soulis, A. Skarmoutsou, E. Milioni, C. Charitidis, S. Janietz

Int. J. Electrochem. Sci. 10 1274 – 1291 (2015).

- 37. Carbon nanotube/polymer nanocomposites: A study on mechanical integrity through nanoindentation**  
Koumoulos, E.P., Jagdale, P., Kartsonakis, I.A., Giorcelli, M., Tagliaferro, A., Charitidis, C.A.  
Polymer Composites, 36 (8), 1432-1446 (2015).
- 38. Tribological characterization of chemical vapor deposited Co and Co<sub>3</sub>O<sub>4</sub> thin films for sensing reliability in engineering applications**  
Koumoulos, E.P., Markakis, V., Tsikourkitoudi, V.P., Charitidis, C.A., Papadopoulos, N., Hristoforou, E., Tribology International, 82, 89-94(2015).
- 39. Plasma Micro-Nanotextured, Scratch, Water and Hexadecane Resistant, Superhydrophobic, and Superamphiphobic Polymeric Surfaces with Perfluorinated Monolayers**  
Kosmas Ellinas, Sidharam P. Pujari, Dimitrios A. Dragatogiannis, Constantinos A. Charitidis, Angeliki Tserepi, Han Zuilhof, Evangelos Gogolides, ACS applied materials & interfaces, 6.9: 6510-6524 (2014).
- 40. Tribological Performance of Hybrid Organo-silicate Coatings**  
A. Skarmoutsou, C.A. Charitidis, Progress in Organic Coatings 77(6) 1037–1044 (2014).
- 41. Investigation of nanomechanical properties of multilayered hybrid nanocomposites**  
G. C. Papanicolaou, C. A. Charitidis, D. V. Portan, D. K. Perivoliotis, M. A. Koklioti  
Meccanica, 49.11: 2645-2655 (2014).
- 42. Nanocomposite NiO:Au hydrogen sensors with high sensitivity and low operating temperature**  
M. Kandyla, C. Chatzimanolis-Moustakas, E.P. Koumoulos, C. Charitidis, M. Kompitsas, Materials Research Bulletin 49 552–559 (2014).
- 43. Nanocomposite NiO:Au hydrogen sensors with high sensitivity and low operating temperature**  
M. Kandyla C. Chatzimanolis-Moustakas E.P. Koumoulos C. Charitidis M. Kompitsas,  
Materials Research Bulletin, 49: 552-559 (2014).
- 44. Nanomechanical Properties of Amorphous FeCuNbSiB Thin Films Deposited by HiPIMS**  
Ioana-Laura Velicu, Maria Neagu, Lucian Costinescu, Daniel Munteanu, Elias P. Koumoulos, Costas A. Charitidis, Sensor Letters 11(6) 1925-1930 (2013).
- 45. Nanomechanical and tribological properties of carbon nanotube/ polyvinylbutyral composites**  
Constantinos A. Charitidis, Elias P. Koumoulos, Mauro Giorcelli, Simone Musso, Pravin Jagdale, Alberto Tagliaferro  
Polymer Composites 34(11) 1950–1960(2013).
- 46. Hybrid organic-inorganic coatings including nanocontainers for corrosion protection of magnesium alloy ZK30**  
I.A. Kartsonakis, E.P. Koumoulos, C.A. Charitidis, G. Kordas  
Journal of Nanoparticle Research 15(8) (2013).
- 47. Tensile and microindentation properties of maxillofacial elastomers after different disinfecting procedures, under final stage of preparation**  
P.N. Eleni, D. Perivoliotis, D.A. Dragatogiannis, M.K. Krokida, G.L. Polyzois, C.A. Charitidis, I. Ziomas, L. Gettleman, Journal of the Mechanical Behavior of Biomedical Materials 28, 147–155 (2013).
- 48. Nanomechanical properties of hybrid coatings for bone tissue engineering**  
A. Skarmoutsou, G. Lolas, C.A. Charitidis, M. Chatzinikolaidou, M. Vamvakaki, M. Farsari,

Journal of the Mechanical Behavior of Biomedical Materials, 25, 48-62 (2013).

- 49. Anticorrosion Protection and Nanomechanical Performance of Hybrid Organo-Silicate Coatings Based on Dendritic Polymers**  
E. Roussi, A. Tsetsekou, A. Skarmoutsou, C.A. Charitidis, A. Karantonis,  
Surface and Coatings Technology, 232, 131-141 (2013).
- 50. Nanostructuring the surface of dual responsive hollow polymer microspheres for versatile utilization in nanomedicine-related applications**  
A. Chatzipavlidis, P. Bilalis, L.A. Tziveleka, N. Boukos, C.A. Charitidis, and G. Kordas  
Langmuir, 29 (30), 9562-9572 (2013).
- 51. Nanotribological Behavior of Carbon Based Thin Films: Friction and Lubricity Mechanisms at the Nanoscale**  
C. A. Charitidis, E.P. Koumoulos, D.A. Dragatogiannis  
Lubricants, 1(2), 22-47 (2013).
- 52. Nanomechanical properties of hydroxyapatite (HAP) with DAB dendrimers (poly-propylene imine) coatings onto titanium surfaces**  
C.A. Charitidis, A. Skarmoutsou, A. Tsetsekou, D. Brasinika, D. Tsiourvas  
Materials Science and Engineering: B 178(7), 391–399, (2013).
- 53. ORMOSIL-epoxy coatings with ceramic containers for corrosion protection of magnesium alloys ZK10.**  
A. Kartsonakis, A.C. Balaskas, E.P. Koumoulos, C.A. Charitidis, G. Kordas,  
Progress in Organic Coatings, 76(2-3), 459–470, (2013).
- 54. Microspheres as therapeutic delivery agents: Synthesis and Biological evaluation of pH responsiveness**  
C. Tapeinos, E.K. Efthimiadou, N. Boukos, C.A. Charitidis, M. Koklioti, and G. Kordas  
Journal of Materials Chemistry B, 1 (2),194-203 (2013).
- 55. Evaluation of corrosion resistance of magnesium alloy ZK10 coated with hybrid organic-inorganic film including containers**  
I.A. Kartsonakis, A.C. Balaskas, E.P Koumoulos, C.A Charitidis, G. Kordas,  
Corrosion Science, 65, 481-493 (2012).
- 56. Residual stress and deformation mechanism of FSW Al alloy by nanoindentation**  
C.A. Charitidis, D.A. Dragatogiannis, E.P. Koumoulos, I.A. Kartsonakis  
Materials Science and Engineering A 540, 226–234 (2012).
- 57. Nanomechanical and nanotribological properties of plasma nanotextured superhydrophilic and superhydrophobic polymeric surfaces**  
A. Skarmoutsou, **C.A. Charitidis**, A.K. Gnanappa, A. Tserepi, E. Gogolides,  
Nanotechnology,23(50), 505711, (2012).
- 58. Pre-osteoblastic cell response on three-dimensional, organic-inorganic hybrid material scaffolds for bone tissue engineering**  
K. Terzaki, M. Kissamitaki, A. Skarmoutsou, C. Fotakis, **C.A. Charitidis**, M. Farsari, M. Vamvakaki,  
M. Chatzinikolaidou, Journal of Biomedical Materials Research: Part A (2012).
- 59. Growth, structural and mechanical characterization and reliability of chemical vapor deposited Co and Co<sub>3</sub>O<sub>4</sub> thin films as candidate materials for sensing applications**  
Tsikourkitoudi, V. P., Koumoulos, E. P., Papadopoulos, N., & Charitidis, C. A. In Key Engineering Materials Trans Tech Publications, Vol. 495, 108-111 (2012).

- 60. Structural and nanomechanical properties of a zeolite membrane measured using nanoindentation.**  
C. A. Charitidis, E.P. Koumoulos, V. Nikolakis, D.A. Dragatogiannis,  
Thin Solid Films, 526, 168–175, (2012).
- 61. Nanomechanical and nanotribological properties of hydrophobic fluorocarbon dielectric coating on tetraethoxysilane for electrowetting applications**  
E.P. Koumoulos, C.A. Charitidis, D.P. Papageorgiou, A.G. Papathanasiou, A.G. Boudouvis  
Journal of Surface and Coatings Technology, 206(19-20), 3823-3831 (2012).
- 62. Growth, Structural and Mechanical Characterization and Reliability of Chemical Vapor Deposited Co and Co<sub>3</sub>O<sub>4</sub> Thin Films as Candidate Materials for Sensing Applications**  
V.P. Tsikourkitoudi, E.P. Koumoulos, N. Papadopoulos, E. Hristoforou, C.A. Charitidis  
Journal of Optoelectronics and Advanced Materials 14, 169-175 (2012).
- 63. Hybrid organic-inorganic multilayer coatings including nanocontainers for corrosion protection of metal alloys**  
I.A. Kartsonakis, E.P. Koumoulos, G.S. Pappas, A.C. Balaskas, C.A. Charitidis, G.C. Kordas  
Corrosion Science 57, 56–66 (2012).
- 64. Finite element analysis, stress-strain distribution and size effects rise during nanoindentation of welded aluminum alloy**  
C.A. Charitidis, D. Dragatogiannis, International Journal of Structural Integrity, 4 (1), 78-90 (2013).
- 65. Incorporation of ceramic nanocontainers into epoxy coatings for the corrosion protection of hot dip galvanized steel**  
I.A. Kartsonakis, A.C. Balaskas, E.P. Koumoulos, C.A. Charitidis, G.C. Kordas  
Corrosion Science, Volume 57, 30–41 (2012).
- 66. Multiscale Approach of Hardness in Aluminum Alloy- Consideration of Rate Dependent Behavior**  
C.A. Charitidis, Materials Science and Technology, Volume 28, Numbers 9-10, 1127-1134(8) (2012).
- 67. Analysis of nanoindentation creep of polydimethylsiloxane**  
D.A. Dragatogiannis, V.P. Tsikourkitoudi, C.A. Charitidis, Plastics, Rubber and Composites: Macromolecular Engineering, Volume 41, Number 8, 358-363(6) (2012).
- 68. Determination of onset of plasticity (yielding) and comparison of local mechanical properties of friction stir welded aluminum alloys using the micro- and nano- indentation techniques**  
E.P. Koumoulos, C.A. Charitidis, N.M. Daniolos, D.I. Pantelis, International Journal of Structural Integrity, 4 (1), 143-158 (2013).
- 69. A study on time dependent properties of aluminum alloy by nanoindentation technique**  
C.A. Charitidis, D.A. Dragatogiannis, E.P. Koumoulos  
International Journal of Structural Integrity, 4(1), 33-54 (2012).
- 70. Evaluating the robustness of top coatings comprising plasma-deposited fluorocarbons in electrowetting systems**  
D.P. Papageorgiou, E.P. Koumoulos, C.A. Charitidis, A.G. Boudouvis, A.G. Papathanasiou  
Journal of Adhesion Science and Technology, Volume 26, Issue 12-17, 2001-2015 (2012).
- 71. Nanomechanical properties of thick porous silicon layers grown on p- and p+-type bulk crystalline Si**  
C.A. Charitidis, A. Skarmoutsou, A.G. Nassiopoulou, A. Dragoneas  
Materials Science and Engineering: A 528 (29-30), 8715-8722 (2011).

72. **Nanoscale deformation and nanomechanical properties of soft matter Study cases: Polydimethylsiloxane (PDMS), Cells and Tissues.**  
C.A. Charitidis, *ISRN Nanotechnology*, Volume 2011 Article ID 719512, 13 pages, (2011).
73. **Local mechanical properties and nanoscale deformation of aluminum and magnesium lightweight alloys**  
C.A. Charitidis, *International Journal of Surface Science and Engineering* 5 (1), 20–37 (2011).
74. **Mechanical behaviour of PDMS silicone elastomer after outdoor weathering in two different weathering locations**  
P.N. Eleni, M.K. Krokida, G.L. Polyzois, C.A. Charitidis, E.P. Koumoulos, V.P. Tsikourkitoudi, I. Ziomas, *Polymer Degradation and Stability* 96 (4), 470-476 (2011).
75. **Adhesive forces and time dependent behaviour (creep and loading rate effects) on nanomechanical properties of polydimethylsiloxane (PDMS)**  
C.A. Charitidis, E.P. Koumoulos, V.P. Tsikourkitoudi, S.P. Vasilakos, P.A. Tarantili  
*Journal of Nanostructured Polymers and Nanocomposites* 7 (1), 32-42 (2011).
76. **Influence of accelerated ageing on nanomechanical properties, creep behavior and adhesive forces of PDMS**  
C.A. Charitidis, E.P. Koumoulos, V.P. Tsikourkitoudi, D.A. Dragatogiannis, G. Lolos,  
*Plastics, Rubber and Composites: Macromolecular Engineering*, Volume 41, Number 2, 94-99(6) (2012).
77. **Nanoscale deformation and nanomechanical properties of Polydimethylsiloxane (PDMS)**  
C.A. Charitidis, *Ind. Eng. Chem. Res.* 50 (2), 565–570 (2011).
78. **Influence of Nano-Inclusions' Grain Boundaries on Crack Propagation Modes in Materials**  
T.E. Karakasidis, C.A. Charitidis, *Materials Science and Engineering B* 176 (6), 490-493 (2011).
79. **Nanomechanical Properties of Friction Stir Welded AA6082-T6 Aluminum Alloy**  
E.P. Koumoulos, N. Daniolos, D. Pantelis, C.A. Charitidis  
*Materials Science and Engineering B: Solid-State Materials for Advanced Technology* 176 (19), 1585-1589 (2011).
80. **Probing mechanical properties of thin film and ceramic materials in micro and nano scale using indentation techniques**  
C.A. Charitidis, *Applied Surface Science* 256 (24), 7583–7590 (2010).
81. **Structural, electrical and mechanical properties of NiO thin films grown by Pulsed Laser Deposition**  
I. Fasaki, A. Koutoulaki, M. Kompitsas, C.A Charitidis, *Applied Surface Science* 257 (2), 429–433 (2010).
82. **Electronic properties of binary and ternary, hard and refractory transition metal nitrides**  
L.E. Koutsokeras, N. Hastas, S. Kassavetis, O. Valassiades, C.A Charitidis, S. Logothetidis, P. Patsalas,  
*Surface and Coatings Technology*, 204 (12-13), 2038-2041 (2010).
83. **Nanomechanical and Nanotribological properties of carbon-based thin films: A review**  
C.A. Charitidis, *International Journal of Refractory Metals and Hard Materials (Special Issue: Tribology of Hard Coating)* 28 (1), 51–70 (2010).
84. **An investigation on the high stress sensitivity of fatigue life of rolled AZ31 magnesium alloy under constant amplitude fatigue loading**  
A.N. Chamos, C.A. Charitidis, A. Skarmoutsou, Sp.G. Pantelakis, *Fatigue & Fracture of Engineering Materials & Structures-FFEMS* 33, 252–265 (2010).

- 85. Rapid thermal annealing temperature dependence of noise properties in Au/n-GaAs Schottky diodes with embedded InAs quantum dots in asymmetric In<sub>0.2</sub>Ga<sub>0.8</sub>As wells**  
N. Arpatzanis, N.A. Hastas, C.A. Dimitriadis, G. Konstantinidis, C.A. Charitidis, J.D. Song, W.J. Choi, J.I. Lee, Phys. Status Solidi B 246 (4), 880–884 (2009).
- 86. Vacancy Effect on The Elastic Constants Of Layer- Structured Nanomaterial**  
T.E. Karakasidis, C.A. Charitidis, Theoretical & Applied Fracture Mechanics Journal 51 (3), 195-201 (2009).
- 87. Ideality factor dependence of capacitance and reverse current noise in Au/n-GaAs Schottky diodes with embedded self-assembled InAs quantum dots**  
N. Arpatzanis, N.A. Hastas, C.A. Dimitriadis, C.A. Charitidis, J.D. Song, W.J. Choi, J.I. Lee Phys. Stat Solidi (c) 5 (12), 3617-3621 (2008).
- 88. Effect of deposition pressure and post deposition annealing on SmCo thin film properties**  
Th. Speliotis, E. Makarona, F. Chouliaras, C.A. Charitidis, C. Tsamis, D. Niarchos Phys. Stat Solidi (c) 5 (12), 3759-3762 (2008).
- 89. QD technology and market prospects in the sectors of Defense, Environment, and Security.**  
C.A. Charitidis, A. Golnas, F. Chouliaras, N. Arpatzanis, C. A. Dimitriadis, J. I. Lee, C. Bakolias Phys. Stat Solidi (c) 5 (12), 3872-3876 (2008).
- 90. Interface Controlled Active Fracture Modes in Glass-Ceramics**  
P. Kavouras, Th. Kehagias, Ph. Komninou, K. Chrissafis, C.A. Charitidis, Th. Karakostas Journal of Materials Science, Springer Netherlands ISSN 0022-2461 (Print) 1573-4803 (2008).
- 91. Elastic properties of nanostructured materials with layered grain boundary structure**  
T.E. Karakasidis, C.A. Charitidis, D. Skarakis, F. Chouliaras, Surface Science 601 (16), 3521–3527 (2007).
- 92. Effect of Rapid Thermal Annealing On the Noise Properties of Inas/Gaas Quantum Dot Structures**  
N. Arpatzanis, A. Tsormpatzoglou, C.A. Dimitriadis, J.D. Song, W.J. Choi, J.I. Lee, C. Charitidis, Journal of Applied Physics 102 (5), 054302 (2007).
- 93. Current–Voltage and Noise Characteristics Of Reverse-Biased Au/N-Gaas Schottky Diodes With Embedded Inas Quantum Dots**  
N. Arpatzanis, D. H. Tassis, C. A. Dimitriadis, C. Charitidis, J. D. Song, W. J. Choi, J.I. Lee Semicond. Sci. Technol. 22, 1086-1091 (2007).
- 94. Multiscale modeling in nanomaterials science**  
T.E. Karakasidis, C.A. Charitidis, Materials Science and Engineering C 27 (5-8), 1082–1089 (2007).
- 95. Size effect of crystalline inclusions on the fracture modes in glass-ceramic materials**  
C. Charitidis, T.E. Karakasidis, P. Kavouras, Th. Karakostas, Journal of Physics: Condensed Matter 19, 266-209 (2007).
- 96. Nanomechanical and Nanotribological Properties of Silicon Oxide Thin Films on Polymeric Membranes**  
C.A. Charitidis, S. Kassavetis, S. Logothetidis, Journal of Mechanical Behavior of Materials 18 (3), 157-165 (2007).
- 97. Correlation of elastic modulus, hardness and density for sputtered TiAlBN thin films**  
C.G. Rebholz, A. Leyland, A. Matthews, C.A. Charitidis, S. Logothetidis, D. Schneider Thin Solid Films 514 (1-2), 81-86 (2006).

- 98. On The Parameters Affecting the Fracture Modes In Glass-Ceramic Materials**  
P. Kavouras, C.A. Charitidis, Th. Karakostas, Journal of Non-Crystalline Solids 352 (52-54), 5515-5521 (2006).
- 99. Effects of normal load on nanomechanical and nanotribological properties of sputtered carbon nitride films**  
C.A Charitidis, S. Logothetidis, Diamond and Related Materials 14 (1), 98-108 (2005).
- 100. Nanomechanical and nanotribological properties of carbon based films**  
C.A Charitidis, S. Logothetidis, Thin Solid Films 482 (1-2), 120-125 (2005).
- 101. Nanoscale effects on the nanomechanical properties of multifunctional materials**  
C.A Charitidis, S. Logothetidis, Computational Materials Science 33(1-3), 296-302 (2005).
- 102. Effects of energetic species during the growth of nitrogenated amorphous carbon thin films on their nanomechanical properties**  
C.A Charitidis, P. Patsalas, S. Logothetidis, Thin Solid Films 482 (1-2), 177-182 (2005).
- 103. Optical and nanomechanical study of anti-scratch layers on polycarbonate lenses**  
C.A Charitidis, A. Laskarakis, S. Kassavetis, C. Gravalidis, S. Logothetidis, Journal Superlattices and Microstructures 36 (1-3), 171-179 (2004).
- 104. Nanoindentation studies of multilayer amorphous carbon films**  
S. Logothetidis, S. Kassavetis, C.A Charitidis, Y. Panayiotatos, A. Laskarakis Carbon 42, 1133-1136 (2004).
- 105. The effect of crystal structure and morphology on the optical properties of chromium nitride thin films**  
S. Logothetidis, P. Patsalas, K. Sarakinos, C.A Charitidis, C. Metaxa Surface and Coatings Technology 180-181, 637-641 (2004).
- 106. Nanomechanical and Optical Studies on Polymeric Membranes**  
C.A Charitidis, M. Gioti, S. Logothetidis  
'Macromolecular Symposia by Wiley-VCH', 205, 239-249 (2004).
- 107. Comparison of the Nanomechanical and Nanoscratch Performance of Antiscratch Layers On Organic Lenses**  
C.A Charitidis, M. Gioti, S. Logothetidis, S. Kassavetis, A. Laskarakis, I. Varsano Surface and Coatings Technology 180-181, 357-361 (2004).
- 108. Enhanced catalytic activity of nanostructured cerium oxides films**  
S. Logothetidis, P. Patsalas, C. Charitidis, Materials Science and Engineering C 23, 803-806 (2003).
- 109. A quantitative study of the nano-scratch behavior of boron and carbon nitrides films**  
C.A Charitidis, Y. Panayiotatos, S. Logothetidis, Diamond and Related Materials 12 (3-7), 1088-1092 (2003).
- 110. Microstructure and nanomechanical and optical properties of single-layer and multi-layer carbon films synthesized by radio frequency sputtering**  
W. Lu, K. Komvopoulos, P. Patsalas, C.A Charitidis, M. Gioti, S. Logothetidis Surface and Coatings Technology 168, 12-22 (2003).
- 111. Nanomechanical properties of multi-layered amorphous carbon structures**  
C. Mathioudakis, P.C. Kelires, Y. Panagiotatos, P. Patsalas, C.A Charitidis, S. Logothetidis

Physical Review B 65, 205203 (2002).

- 112. On the properties and functionality of ultra-thin diamond related protective coatings used in optical systems**  
M. Gioti, S. Logothetidis, C.A Charitidis, Y. Panayiotatos, Sensors and Actuators A 99, 35-40 (2002).
- 113. Engineering properties of fully  $sp^3$ - to  $sp^2$ -bonded Carbon films and their modifications after post-growth ion irradiation**  
S. Logothetidis, C.A Charitidis, P. Patsalas, Diamond and Related Materials 11, 1095-1099 (2002).
- 114. Mechanical performance and growth characteristics of boron nitride films in relation to optical and compositional properties**  
Y. Panayiotatos, P. Patsalas, C.A Charitidis, S. Logothetidis, Surface and Coatings Technology 151-152, 155-159 (2002).
- 115. A study on the bonding structure and mechanical properties of magnetron sputtered a-CN<sub>x</sub> thin films**  
A. Laskarakis, S. Logothetidis, C.A Charitidis, M. Gioti, Y. Panayiotatos, M. Handrea, W. Kautek Diamond and Related Materials 10, 1179-1184 (2001).
- 116. Development of diamond and diamond related materials with desired properties**  
S. Logothetidis, M. Gioti, C.A Charitidis, P. Patsalas, Advanced Engineering Materials 3, 166-170 (2001).
- 117. Superlinearity of synthetic quartz: Dependence on the firing temperature**  
C.A Charitidis, G. Kitis, C. Fureta, S. Charalambous, Nuclear Instruments and Methods in Physics Research B 168 (3), 404-410 (2000).
- 118. Comprehensive study on the properties of multilayered amorphous carbon films**  
S. Logothetidis, C.A Charitidis, M. Gioti, Y. Panagiotatos, M. Handrea, W. Kautek Diamond and Related Materials 9 (3-6), 756-760 (2000).
- 119. The effect of substrate temperature and biasing on the mechanical properties and structure of sputtered titanium nitride thin films**  
P. Patsalas, C.A Charitidis, S. Logothetidis, Surface and Coatings Technology 125 (1-3), 335-340 (2000).
- 120. In-situ and real-time ellipsometry monitoring of submicron titanium nitride /titanium silicide electronic devices**  
P. Patsalas, C.A Charitidis, S. Logothetidis, Applied Surface Science 154-155, 256-262 (2000).
- 121. A comparative study of the nanoscratching behavior of amorphous carbon films grown under different deposition conditions**  
C.A Charitidis, S. Logothetidis, M. Gioti, Surface and Coatings Technology 125 (1-3), 201-206 (2000).
- 122. Combined electrical and mechanical properties of titanium nitride thin films as metallization materials**  
P. Patsalas, C.A Charitidis, S. Logothetidis, C.A. Dimitriadis, O. Valassiades, Journal of Applied Physics 86 (9), (1999).
- 123. Elastic properties of hydrogen-free amorphous carbon thin films and their relation with carbon-carbon bonding**  
S. Logothetidis, C.A Charitidis, Thin Solid Films 353 (1-2), 208-213 (1999).

- 124. The effect of boron additions on the tribological behavior of TiN coatings produced by electron-beam evaporative PVD**  
C. Rebholz, A. Leyland, P. Larourp, C.A Charitidis, S. Logothetidis, A. Matthews, Surface and Coatings Technology 116-119, 648-653 (1999).
- 125. Structure, mechanical and tribological properties of sputtered TiAlBN thin films**  
C. Rebholz, J.M. Schneider, A.A. Voevodin, J. Steinebrunner, C.A Charitidis, A. Leyland, S. Logothetidis, A. Matthews, Surface and Coatings Technology 113, 126-133 (1999).
- 126. 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).
- 127. A comparative study of composition, structure and elastic properties of boron nitride films deposited by magnetron and ion beam sputtering**  
S. Logothetidis, C.A Charitidis, P. Patsalas, Th. Kechagias, Diamond and Related Materials 8, 410-414 (1999).
- 128. Nanoindentation and nanoscratching studies of amorphous carbon films**  
C.A Charitidis, S. Logothetidis, P. Douka, Diamond and Related Materials 8 (2-5), 558-562 (1999).
- 129. Composition, chemical bonding and mechanical properties of magnetron CN<sub>x</sub> thin films at different substrate bias**  
M. Gioti, S. Logothetidis, C.A Charitidis, H. Lefakis, Vacuum 53, 53-56 (1999).
- 130. A new process for the development of hard and stable sputtered amorphous carbon films**  
S. Logothetidis, M. Gioti, C.A Charitidis, P. Patsalas, Vacuum 53, 61-64 (1999).
- 131. Stability, enhancement of elastic properties and structure of multilayered amorphous carbon films**  
S. Logothetidis, M. Gioti, C.A Charitidis, P. Patsalas, J. Arvanitidis, J. Stoimenos, Applied Surface Science 138-139, 244-249 (1999).
- 132. Insights on the deposition mechanism of sputtered amorphous carbon films**  
S. Logothetidis, M. Gioti, P. Patsalas, C.A Charitidis, Carbon 37, 765-769 (1999).
- 133. Stress relaxation and stability in thick amorphous carbon films deposited in layer structure**  
M. Gioti, S. Logothetidis, C.A Charitidis, Applied Physics Letters 73, 184-186 (1998).
- 134. Superlinearity of synthetic quartz at different irradiation temperatures**  
C.A Charitidis, G. Kitis, S. Charalambous, Radiation Protection Dosimetry 65 (1-4), 347-350 (1996).
- 135. Thermoluminescent kinetics parameters of monocrystalline LiF:Mg,Ti (DTG-4)**  
G. Kitis, C.A Charitidis, C. Furetta, Nuclear Science Journal 31, 465-471 (1994).
- 136. Thermoluminescence sensitization of LiF:Mg,Ti under heat treatment between 150 and 400 °C**  
G. Kitis, C.A Charitidis, S. Charalambous, Nuclear Instruments and Methods in Physics Research B 51, 263-268 (1990).

## **B. Other Publications (16)**

- 1. Co-author in EMCC Roadmap for Materials Characterisation,**  
B. Boskovic, C. Charitidis, S. Diplas, C. Eberl, G. Goldbeck, N. S. Kiran, E. Koumoulos, H. Marvin, C. Minelli, M. Sebastiani, F. C. Simeone, S. A. M. Tofail, E. Zschech (2017)

2. **Research Integrity in Europe and Greece**,  
C. Charitidis, H. Koumoulos, P. Kavouras, M. Kritikos, T. Garani-Papadatos, *Journal Bioethica*, Vol 2, Issue 1 (2016).
3. Co-author in “**Closer to the market (CTTM)**”-roadmap”, Research roadmap for nanosafety.  
Andreas Falk, Andrea Haase, Benoît Hazebrouck, Carlos Fito López, Adriele Prina-Mello, Kai Savolainen, Adriëne Sips, Jesús M. Lopez de Ipiña, Iseult Lynch, Costas Charitidis
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](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:
- The EU Commission and its subsidiary institutions;
  - EU Ethics Screeners, Reviewers and Auditors;
  - 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 Michelini, 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 Forsse, Caroline Gans-Combe, Johannes Rath, Myra Tilney.  
**European Commission, Research Directorate General, Unit L3-Governance and Ethics. Ethics Review Sector**  
<http://Europa.eu/sinapse/sinapse/index.cfm?&fuseaction=cmydoc.home>

### C. Publications in peer Reviewed Proceedings of International Conferences (108)

- Self-sensing capability assessment and corrosion evaluation of multi-walled carbon nanotubes reinforced mortars**  
Evangelia Karaxi, Ioannis Kartsonakis, Irene Kanellopoulou, Costas Charitidis  
EUROCORR 2018, 9-13 September 2018, Krakow, Poland
- Assessment of corrosion inhibitive behavior of 2-mecraptobenzothiazole and sodium phosphate dibasic on industrial steel pipelines**  
Ioannis Kartsonakis, Evaggelia Karaxi, Panagiota Stamatogianni, Panagiotis Kavouras, Costas Charitidis  
EUROCORR 2018, 9-13 September 2018, Krakow, Poland

3. **The strategic role of Life Cycle Assessment in the problem of material criticality and in development of Chromium-free substitute for stainless steel**  
Vasiliki I. Stergiou, Athanasios K. Morozinis and Constantinos A. Charitidis  
ICEAF-V 2018, 20-22 June 2018, Chios, Greece
4. **Effect of Lignin and CNTs on the properties of melt-spun polymeric fibers**  
Panagiotis Goulis, Ioannis A. Kartsonakis, Konstantinos Mpalias and Costas A. Charitidis  
ICEAF-V 2018, 20-22 June 2018, Chios, Greece
5. **Hybrid superabsorbent polymer networks (SAPs) encapsulated with SiO<sub>2</sub> for structural applications**  
Irene Kanellopoulou, Evangelia K. Karaxi, Anna Karatza, Ioannis A. Kartsonakis, Costas Charitidis  
ICEAF-V 2018, 20-22 June 2018, Chios, Greece
6. **Fabrication of carbon nanotube-reinforced mortar specimens: evaluation of mechanical and pressure-sensitive properties**  
Evangelia K. Karaxi, Irene A. Kanellopoulou, Anna Karatza, Ioannis A. Kartsonakis, Costas A. Charitidis  
ICEAF-V 2018, 20-22 June 2018, Chios, Greece
7. **Enhancement of Mechanical Integrity of Advanced Composites using PMAA-Electropolymerised CF Fabrics**  
Dionysios A. Semitekolos, Panagiotis Goulis, Despoina I. Batsouli, Elias P. Koumoulos, Loukas Zoumpoulakis, Costas A. Charitidis  
ICEAF-V 2018, 20-22 June 2018, Chios, Greece
8. **Assessing the integrity of CFRPs through nanomechanical mapping: the effect of CF surface modification**  
Elias P. Koumoulos, Panagiotis Kainourios, Costas A. Charitidis  
ICEAF-V 2018, 20-22 June 2018, Chios, Greece
9. **Numerical and Experimental Study of Single Fiber Push-out Test: Influence of Fiber/Matrix Interface Mechanical Properties**  
D. I. Batsouli, D. A. Dragatogiannis, S. Corujeira Gallo, Z. Zhang, H. Dong, G. Kotsikos, C. A. Charitidis  
ECCM18, 24-28 June 2018, Athens, Greece
10. **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
11. **Integrity and performance of graphene based sprayed electrodes for high performance supercapacitors**  
Elias P. Koumoulos, A. F. A. Trompeta<sup>1</sup>, Paolo Bondavalli, Costas A. Charitidis  
Graphene Week 2017, 25-29 September, Athens, Greece
12. **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
13. **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)

- 14. 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
- 15. 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
- 16. 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.
- 17. 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.
- 18. 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
- 19. 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
- 20. 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
- 21. 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 Jagdale, Irene Cannavaro, Miroslav Slouf, Maria Omastová, Alberto Tagliaferro, Elias Koumoulos, Constantinos Charitidis
- 22. 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
- 23. 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.
- 24. Evaluation of core-shell Mg-Al-NO<sub>3</sub> 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.

- 25. 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.
- 26. Lignin as new precursors for the development of carbon fibers: co-blends and extrusion,**  
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.
- 27. 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.
- 28. 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.
- 29. 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.
- 30. 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
- 31. 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
- 32. 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).
- 33. A Degradable Chitosan-graft-poly( $\epsilon$ -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
- 34. 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.
- 35. 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.

- 36. 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
- 37. Nanoindentation testing of a chitosan-graft-poly(e-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
- 38. Nanoindentation Analysis of Composite Engineering Materials**  
E.P. Koumoulos, C. A. Charitidis  
EUROFILLERS 2013: 10th anniversary meeting, 25-29 August 2013, Bratislava, Slovakia
- 39. 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
- 40. 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
- 41. 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
- 42. 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
- 43. 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
- 44. Encapsulation of CaCO<sub>3</sub>-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.
- 45. 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.
- 46. 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.

- 47. 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.
- 48. 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.
- 49. 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.
- 50. 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.
- 51. 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.
- 52. 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.
- 53. 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.
- 54. 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 2012 - The European Corrosion Congress”, September 1 - 5, 2013, Estoril, Portugal.
- 55. 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.
- 56. 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**

- 57. 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
- 58. 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
- 59. 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
- 60. 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
- 61. Structural and mechanical properties of 7075-T651 aluminum alloy with incorporation of Al<sub>2</sub>O<sub>3</sub> 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
- 62. 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
- 63. Nanomechanical integrity, structural analysis and thermal stability of Cu Al<sub>2</sub>O<sub>3</sub> 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
- 64. Structural investigation and mechanical integrity of metal and metal oxide thin films for sensing applications: A comparative study through nanoindentation**  
9th International Conference on Nanosciences & Nanotechnologies (NN12) 3-6 July 2012, Thessaloniki, Greece  
V. P. Tsikourkitoudi, E.P. Koumoulos, I.A. Kartsonakis, C.A. Charitidis
- 65. Synthesis and characterization of functionalized iron oxide nanoparticles**  
9th International Conference on Nanosciences & Nanotechnologies (NN12) 3-6 July 2012, Thessaloniki, Greece  
Skarmoutsou, A. Chatzipavlidis, V. Malamas, I. Kartsonakis, G. Kordas, C.A. Charitidis
- 66. Ternary delta-Ti<sub>x</sub>Ta<sub>1-x</sub>N: An addition to superhard materials?**  
The International Conference on Metallurgical Coatings and Thin Films/ICMCTF April 23-27, 2012, San Diego, CA, USA.

L.E. Koutsokeras, A. Skarmoutsou, G. Abadias, P. Psyllaki, C.A. Charitidis, Ch.E. Lekka, P. Patsalas

- 67. Nanocomposite NiO:Au hydrogen sensors with a few ppm sensitivity and low operating temperatures**  
Symposium Q: Novel materials and fabrication methods for new emerging devices, E-MRS Spring 2012, Strasbourg  
M. Kandyła, C. Chatzimanolis, V. Tsikourkitoudi, I.A. Kartsonakis, I. Hotovy, C.A. Charitidis, M. Kompitsas
- 68. Mechanical Properties of hybrid materials**  
Nanomaterials: Application & Properties 2012, 17-22 September 2012, Alushta, Ukraine.  
A. Skarmoutsou, C.A. Charitidis, M. Chatzinikolaïdou, M. Vamvakaki
- 69. Ternary delta-Ti<sub>x</sub>Ta<sub>1-x</sub>N: An addition to superhard materials?**  
L.E. Koutsokeras, A. Skarmoutsou, G. Abadias, P. Psyllaki, **C.A. Charitidis**, Ch.E. Lekka, P. Patsalas  
The International Conference on Metallurgical Coatings and Thin Films/ICMCTF April 23-27, 2012, San Diego, CA, USA.
- 70. Encapsulation of CaCO<sub>3</sub>-producing bacterial strains into nanocontainers for marble self-restoration**  
I.A. Kartsonakis, E.K. Efthimiadou, E.P. Koumoulos, **C.A. Charitidis**, G.C. Kordas  
4<sup>th</sup> International Symposium on Nanotechnology in Construction (NICOM 4), Special session on "Nanomaterials in Cultural Heritage", Agios Nikolaos, Crete, 20-22 May 2012.
- 71. Growth, Structural and Mechanical Characterization and Reliability of Chemical Vapor Deposited Co and Co<sub>3</sub>O<sub>4</sub> Thin Films as Candidate Materials for Sensing Applications**  
Proceedings of the International Conference for Materials and Applications for Sensors and Transducers, May, 13-17, 2011, Kos, Greece  
V.P. Tsikourkitoudi, E.P. Koumoulos, N. Papadopoulos, **C.A. Charitidis**
- 72. Tribological Characterization of Chemical Vapor Deposited Co and Co<sub>3</sub>O<sub>4</sub> Thin Films for Sensing Reliability in Engineering Applications**  
Proceedings of the 20<sup>th</sup> International Conference on Soft Magnetic Materials, September, 18-22, 2011, Kos, Greece  
V.P. Tsikourkitoudi, E.P. Koumoulos, **C.A. Charitidis**, N. Papadopoulos, E. Hristoforou
- 73. A review on multiscale modeling in complex biological systems: the tumor growth paradigm**  
Proceedings of the 7<sup>th</sup> GRACM International Congress on Computational Mechanics Athens, June 30 – July 2, 2011, Athens, Greece  
H. Hatzikirou, G. Lolas, D. Dragatogiannis, **C.A. Charitidis**, I. Kartsonakis, G. Kordas
- 74. Multiscale consideration of plasticity and stress-strain in engineering materials (Study case: Aluminum alloy)**  
Proceedings of the 7<sup>th</sup> GRACM International Congress on Computational Mechanics Athens, June 30 – July 2, 2011, Athens, Greece  
**C.A. Charitidis**, D. A. Dragatogiannis, G. Lolas
- 75. Evaluation of mechanical properties of friction stir welded 6082 aluminum alloy using the micro- and nano- indentation techniques**  
Proceedings of the 2<sup>nd</sup> International Conference of Engineering against Fracture, June, 22-24, 2011, Mykonos, Greece  
N.M. Daniolos, E.P. Koumoulos, **C.A. Charitidis**, D.I. Pantelis
- 76. Determination of onset on plasticity (yielding) and comparison of local mechanical properties of friction stir welded aluminum alloys AA5083 and AA6082**

Proceedings of the 2<sup>nd</sup> International Conference of Engineering against Fracture, June, 22-24, 2011, Mykonos, Greece  
E.P. Koumoulos, **C.A. Charitidis**, N.M. Daniolos, D.I. Pantelis

- 77. Finite element analysis and nanoindentation stress-strain curves of welded aluminum alloy**  
Proceedings of the 2<sup>nd</sup> International Conference of Engineering against Fracture, June, 22-24, 2011, Mykonos, Greece  
**C.A. Charitidis**, D.A. Dragatogiannis
- 78. Nanomechanical properties and nanoscale deformation of PDMS nanocomposites**  
Proceedings of the 9<sup>th</sup> International Conference on Durability of Composite Systems, 12-15 September 2010, Patra, Greece  
**C.A. Charitidis**, E. Koumoulos
- 79. Nanomechanical and nanotribological properties of SiO<sub>x</sub> thin films on PET membranes**  
Proceedings of the 6<sup>th</sup> International Conference on Modification Degradation and Stabilization of Polymers 5-9 September 2010, Athens, Greece  
A.Skarmoutsou, N. Chronopoulou, **C.A. Charitidis**
- 80. Nanomechanical properties of physically-aged Polydimethylsiloxane**  
Proceedings of the 6<sup>th</sup> International Conference on Modification Degradation and Stabilization of Polymers 5-9 September 2010, Athens, Greece  
E.P. Koumoulos, V.P. Tsikourkitoudi, **C.A. Charitidis**, P.N. Eleni, M.K. Krokida, I.C. Ziomas
- 81. Impact of crystal phase content on the mechanical properties of glass-ceramic materials**  
Proceedings of the 7<sup>th</sup> International Conference on Nanosciences & Nanotechnologies (NN10) 11-14 July 2010, Halkidiki, Greece  
P. Kavouras, **C.A. Charitidis**, E.P. Koumoulos, Th. Kehagias
- 82. The lymphatic vascular system in lymphangiogenesis, invasion and metastasis. A theoretical approach**  
Proceedings of the 7<sup>th</sup> International Conference on Nanosciences & Nanotechnologies (NN10) 11-14 July 2010, Halkidiki, Greece  
G. Lolas, **C.A. Charitidis**
- 83. Theoretical Modelling of proteolysis and cancer cell invasion of tissue**  
Proceedings of the 7<sup>th</sup> International Conference on Nanosciences & Nanotechnologies (NN10) 11-14 July 2010, Halkidiki, Greece  
G. Lolas, **C.A. Charitidis**
- 84. Nanomechanical Properties of Friction Stir Welded AA6082-T6 Aluminum Alloy**  
Proceedings of the 7<sup>th</sup> International Conference on Nanosciences & Nanotechnologies (NN10) 11-14 July 2010, Halkidiki, Greece  
E.P. Koumoulos, N. Daniolos, D. Pantelis, **C.A. Charitidis**
- 85. Structural and magnetic studies of silica-coated magnetic nanoparticles: potential candidates for magnetic hyperthermia treatment**  
Proceedings of the 7<sup>th</sup> International Conference on Nanosciences & Nanotechnologies (NN10) 11-14 July 2010, Halkidiki, Greece  
A.Chatzipavlidis, P. Bilalis, N. Boukos, G. Mitrikas, G. Kordas, **C.A. Charitidis**
- 86. Nanoscale deformation and nanomechanical properties of soft matter. Study cases: Polydimethylsiloxane (PDMS), Cells and Tissues**  
Proceedings of the 6<sup>th</sup> Chemical Engineering Conference for Collaborative Research in Eastern Mediterranean Countries, 7-12 March 2010, Antalya, Turkey  
**Costas Charitidis**

- 87. Softening of Nanostructured Transition Metal Nitrides**  
E-MRS 2010 Proceedings of Spring Meeting  
L.E. Koutsokeras, A. Skarmoutsou, Th. Goutziotis, Ch.E. Lekka, **C.A. Charitidis**, P. Patsalas
- 88. Nanotechnology for Reverse Engineering of Natural Pathways**  
Proceedings of the 6<sup>th</sup> International Conference "Instrumental Methods of Analysis-IMA", 4-8/10/2009,  
Athens, Greece  
L.G. Bleris, A. Skarmoutsou, **C.A. Charitidis**
- 89. Nanofatigue studies and high stress sensitivity of fatigue life of rolled AZ31 magnesium alloy using nanoindentation technique**  
Proceedings of the 6<sup>th</sup> International Conference on Nanosciences & Nanotechnologies, 13-15/7/2009,  
Thessaloniki, Greece  
**C.A. Charitidis**, A. Skarmoutsou, Sp. G. Pantelakis
- 90. Nanoindentation of Nanocomposites Polydimethylsiloxane Elastomers**  
Proceedings of the 6<sup>th</sup> International Conference on Nanosciences & Nanotechnologies, 13-15/7/2009,  
Thessaloniki, Greece  
**C.A. Charitidis**, E. Koumoulos
- 91. Synthesis and Characterization of Amphiphilic  $\gamma$ -Fe<sub>2</sub>O<sub>3</sub> Nanoparticles for Bioapplications**  
Proceedings of the 6<sup>th</sup> International Conference on Nanosciences & Nanotechnologies, 13-15/7/2009,  
Thessaloniki, Greece  
A. Skarmoutsou, **C.A. Charitidis**, V.K. Tzitzios, D. Niarchos
- 92. Influence of Nano-Inclusions' Grain Boundaries on Crack Propagation Modes in Materials**  
Proceedings of the 6<sup>th</sup> International Conference on Nanosciences & Nanotechnologies, 13-15/7/2009,  
Thessaloniki, Greece  
T. E. Karakasidis, **C.A. Charitidis**
- 93. Novel hybrid organo-silicate corrosion resistant coatings based on dendritic polymers**  
Proceedings of the 11<sup>th</sup> International Conference and Exhibition of the European Ceramic Society,  
Cracow, Poland 21-25/6/2009  
E. Roussi, A. Tsetsekou, C. Tzitzeklis, G. Mamandras, **C.A. Charitidis**, D. Tsiourvas
- 94. Fracture and failure in micro- and nano- scale**  
Engineering against Fracture, Proceedings, Springer, pp. 347-355 (2009)  
Invited presentation in ICEAF, 1<sup>ST</sup> International Conference of Engineering against Fracture, 28-  
30/5/2008, University of Patras, Greece  
**C.A. Charitidis**
- 95. Mechanical properties of thin pulsed laser deposited amorphous carbons and amorphous carbon/silver nanocomposites**  
Proceedings MESO 2007: Particle & continuum aspects of mesomechanics: integrity thresholds for  
materials and structures, 13-17/5/2007, Presqu'île de Giens southern France  
**C.A. Charitidis**, P. Patsalas, F. Chouliaras, C. Kosmidis, G.A. Evangelakis
- 96. The effect of point defects on the elastic properties of layered structured nanomaterials**  
Proceedings: Particle & continuum aspects of mesomechanics: integrity thresholds for materials and  
structures, 13-17/5/2007, Presqu'île de Giens southern France  
T.E. Karakasidis, **C.A. Charitidis**, D. Skarakis
- 97. Investigation of the use of advanced materials and processes at the nano/micro scale in covering materials of greenhouses for energy savings**

Proceedings: Particle & continuum aspects of mesomechanics: integrity thresholds for materials and structures, 13-17/5/2007, Presqu'île de Giens southern France  
C.A. Charitidis, Sp. Pantelakis, B. Bontozoglou, L. Kontonassios, A. Kavga, P. Charitidis

- 98. Investigation of metals and metallic composites for defect detection and fatigue monitoring in the micro scale using thermography**  
N. P. Avdelidis, C. A. Charitidis, Z. P. Marioli-Riga, C. Ibarra-Castanedo, X. P. V.  
Maldague, Spie Defence & Security Symposium, 9–13 April 2007 in Orlando World Center Marriott Resort and Convention Center, Orlando, Florida USA
- 99. Mechanical properties of thin pulsed laser deposited amorphous carbons and amorphous carbon/silver nanocomposites**  
EMRS-07 Proceedings of Symposium J  
C.A Charitidis, P. Patsalas, C. Kosmidis, G.A. Evangelakis
- 100. Relationship between morphological and mechanical properties of glass-ceramic materials**  
Proceedings of the XI Conference on the Physics of Non-Crystalline Solids, 29/10-1/11/2006, Rhodes, Greece  
P. Kavouras, C.A Charitidis, Th. Kehagias, F. Pinakidou, Th. Karakostas
- 101. Tailoring the mechanical properties of glass-ceramic materials from solid wastes**  
3<sup>rd</sup> Balkan Conference of Environment, 13 – 16/3/2006, Katerini, Greece  
Journal of Environmental Protection and Ecology 4, Vol. 7 845-850 (2006)  
P. Kavouras, C.A Charitidis, Th. Kehagias, Th. Karakostas
- 102. Vitrification as a tool for solid waste treatment: A case study for electric arc furnace dust**  
3<sup>rd</sup> Balkan Conference of Environment, 13 – 16/3/2006  
Journal of Environmental Protection and Ecology 4, Vol. 7, 838-844 (2006)  
P. Kavouras, G. Kaimakamis, I. Tsilika, T. A. Ioannidis, Th. Kehagias, K. Hrisafis, E. Pavlidou, S. Kokkou, G. P. Dimitrakopoulos, C.A Charitidis, E. Fournou-Karga, I. Haritonidis, K. Paraskeuopoulos, A. I. Zouboulis, Ph. Komninou, Th. Karakostas
- 103. Controlling the modes of fracture in glass-ceramic materials containing hazardous solid wastes**  
XI International Conference on the Physics of non Crystalline Solids, Rhodes 29/10- 2/11/2006  
Journal of Non-Crystalline Solids (submitted 2007)  
P. Kavouras, C.A Charitidis, Th. Karakostas
- 104. Optical and mechanical performance of nanostructured Cerium oxides for applications in optical devices**  
Institute of Physics Publishing: Journal of Physics: Conference Series 10, 226-229 (2005)  
C.A Charitidis, P. Patsalas, S. Logothetidis
- 105. Scale Dependence of Mechanical & Tribological Properties of Engineering Materials and Systems**  
Proceedings of the 6<sup>th</sup> International Conference for Mesomechanics held in Patras, Greece, May 31- June 4, 2004, pages 99-105  
Multiscaling in Applied Science and Emerging Technology  
Fundamentals and Applications in Mesomechanics  
Edited by G.C. Sih  
C.A Charitidis, S. Logothetidis
- 106. Nanoscratch deformation response of Carbon Nitride thin films**  
MRS Proceedings 649, Q7.19 (2001)  
C.A Charitidis, P. Patsalas, S. Logothetidis
- 107. Nanoindentation / nanoscratching and stress studies in monolithic and nanolayered amorphous carbon films**

Nanostructured Films and Coatings, Eds G.M. Clow et al. 297-308 (2000)  
S. Logothetidis, **C.A Charitidis**, M. Gioti

**108. Investigation of boron nitride films deposited by RF magnetron sputtering with in-situ spectroscopic ellipsometry and stress measurements**

Journal of the Electrochemical Society Proceedings of the II Symposium on III-V Nitride and Processes  
97-34, 142 (1998)

S. Logothetidis, **C.A Charitidis**, P. Patsalas, I.M. Kyprianidis, M. Gioti

<b>D. Publications in books (13)</b>
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**1. Mechanical, Tribological Properties and Surface Characteristics of Nanotextured Surfaces**

C.A. Charitidis, D.A. Dragatogiannis, E.P. Koumoulos and D. Perivoliotis,

Book 'Nanomaterial Characterization: An introduction', John Wiley and Sons, edited by Ratna Tantra

**2. Dissimilar friction stir welding of aluminum alloys reinforced with carbon nanotubes**

DI Pantelis, PN Karakizis, DA Dragatogiannis, CA Charitidis

Editor: C. Charitidis Book "Nanomaterials in Joining"

December 2015.

**3. Nanomechanical Properties and Deformation Mechanism in Metals, Oxides and Alloys**

Book "Nanomechanical Analysis of High Performance Materials"

Part 3: Contributions from Users,

Springer Book, Series: Solid Mechanics and Its Applications, Vol. 203

Tiwari, Atul (Ed.)

**4. Synthesis and characterization of ceramic hollow nanocomposites and nanotraps**

I.A. Kartsonakis, C.A. Charitidis, G.C. Kordas, Book "Nanocomposites: materials, manufacturing and engineering", by J . Paulo Davim (General editor) , Costas A. Charitidis (General editor)Walter de Gruyter (publisher) DE Gruyter

**5. Influence of Nanocontainers into Sol-Gel Coatings for the Corrosion Protection of Aluminium Alloys, I.A. Kartsonakis, C.A.Charitidis, E.P. Koumoulos, A.C. Balaskas, D. Perivoliotis, G.C. Kordas,**

Submitted (2011): Book Chapter (INTECH for the book under the working title "Infrared Spectroscopy / Book 2", ISBN 979-953-307-382-7)

**6. Local mechanical properties and nanoscale deformation of engineering metals and alloys**

**Costas A. Charitidis**

Editor: Paulo Davim

Book Chapter: Materials and Surface Engineering Engineering Against Fracture

Publisher: Woodhead/Chandos

Chapter: 2

June 2013.

**7. Nanotechnology Research Direction for Societal Needs in 2020 Retrospective and Outlook**

**Costas A. Charitidis**

Editors: Mihail C. Roco, Chad A. Mirkin, Mark C. Hersam Springer

Pages 351, 398

October 2010.

**8. Nanotribological behavior of carbon-based thin films**

Costas A. Charitidis

Editors-in-Chief Q. Jane Wang and Yip-Wah Chung

Encyclopedia of Tribology  
Publisher: Springer Netherlands  
(2010).

- 9. Nanomechanical and nanotribological properties of SiO<sub>x</sub> thin films on PET membranes**  
Proceedings of the 6<sup>th</sup> International Conference on Modification Degradation and Stabilization of Polymers 5-9 September 2010, Athens, Greece  
A.Skarmoutsou, N. Chronopoulou, C.A. Charitidis  
Publisher: MoDeSt Hellenic Organizing Committee  
Editors: Constantine D. Papaspyrides, Stamatina N. Vouyiouka  
ISBN: 978-960-99362-0-0
- 10. Nanomechanical properties of physically-aged Polydimethylsiloxane**  
Proceedings of the 6<sup>th</sup> International Conference on Modification Degradation and Stabilization of Polymers 5-9 September 2010, Athens, Greece E.P. Koumoulos, V.P. Tsikourkitoudi, C.A. Charitidis, P.N. Eleni, M.K. Krokida, I.C. Ziomas  
Publisher: MoDeSt Hellenic Organizing Committee  
Editors: Constantine D. Papaspyrides, Stamatina N. Vouyiouka  
ISBN: 978-960-99362-0-0
- 11. Nanotribological Properties of tetrahedral amorphous carbon films (ta-C)**  
C.A. Charitidis  
Special issue invitation, N.Spyrellis NTUA, pages 131-138, Athens 2009.
- 12. Fracture and Failure in Micro- and Nano-Scale**  
Costas A. Charitidis  
Book Chapter: Engineering Against Fracture,  
Publisher: Springer Netherlands,  
DOI: 10.1007/978-1-4020-9402-6,  
Copyright 2009,  
ISBN: 978-1-4020-9401-99, (Print) 978-1-4020-9402-6 (Online),  
Part: VIII,  
DOI: 10.1007/978-1-4020-9402-6\_28,  
Pages: 347-355,  
Subject Collection: Chemistry and Materials Science,  
Springer Link Date: Saturday, February 14, 2009.
- 13. Nanoindentation/Nanoscratching and Stress Studies in Monolithic and Nanolayered Amorphous Carbon Films**  
S. Logothetidis, C.A. Charitidis, M Gioti  
Book Chapter in: Nanostructured Films and Coatings (NATO Science Partnership Sub-Series: 3)  
Gan-Moog Chow (Editor), Ilya A. Ovid'ko (Editor), Thomas Tsakalagos (Editor)  
Published by: Kluwer Academic Publishers  
Proceedings of the NATO Advanced Research Workshop on Nanostructured Films and Coatings  
Santorini, Greece  
June 28-30, 1999.