

CURRICULUM VITAE

PERSONAL DETAILS

Name/surname: Dimitris I. Sioulas
Date of Birth: 28 June 1980
Place of Birth: Athens
Marital Status : single
Home Address : Agiou Nikolaou 3, Karidia Baribobis, Attiki, Greece
Tel: +306937080907 (Mobile)
E-Mail: dsioulas@cc.uoi.gr, sioulasd@gmail.com

EDUCATION & ACADEMIC TITLES

- **Philosophy Doctorate (Ph.D.)** Materials Science (2009 – 2011)
Department of Materials Science and Engineering, University of Ioannina, Greece, in collaboration with the Hellenic Aerospace Industry, (H.A.I), Dept. of Special Processes, Hellenic Aerospace Industry, S.A., 32009 Schimatari, Greece.
Thesis Title: “Corrosion of nanostructured HVOF cermet coatings”.
Supervisor: Associate Professor Angeliki Lekatou.
- **Master of Science (M.Sc.)** (2006-2009)
“Materials Chemistry and Technology”, interdisciplinary Master's program, Departments of Chemistry and Materials Science and Engineering, University of Ioannina.
Master Thesis Title: “Corrosion of Ni-Cr-Nb-Fe alloys”.
Supervisor: Associate Professor Angeliki Lekatou.
- **Diploma in Materials Science & Engineering** (1999-2005)
Department of Materials Science and Engineering, University of Ioannina, Greece.
Diploma Thesis: “Heat treatment and corrosion properties of an Al-Mg-Si alloy”.
Supervisor: Associate Professor Angeliki Lekatou.

FOREIGN LANGUAGES

- *Greek (Native speaker)*
- *English (Fluent)*
- *German (Fluent)*

PROFESSIONAL EXPERIENCE & ACTIVITY

- **9/2012 - to date:** Post Doctoral researcher at National Technical University of Athens, Dept. of Mining and Metallurgy Engineering, Athens, Greece.
The project is dealing with the development of ceramic-matrix composite nano-materials with metallic inclusions - investigation of mechanical and physiochemical properties with experimental, theoretical and calculation methods.
- **8/2011 - 5/2012:** Military service, (prvt) Expert Scientist, Technical Directorate, Hellenic Army General Staff, Athens, Greece.
- **2009 - 2010:** Working as Ph.D. candidate at the Hellenic Aerospace Industry, (H.A.I), conducting HVOF Thermal Spray coatings. Micro and nano WC-Co, Micro and nano WC-Co-Cr coatings on Al 7075 and 4130 steel substrate. European Program “Eco Design” CLEAN SKY: Development of technologies for a Fully Recyclable Aircraft with environmental protection principles.
Dept. of Special Processes, Hellenic Aerospace Industry, S.A., 32009 Schimatari, Greece.
- **2005 - 2011:** Teaching assistant at Materials Lab IV (Applied Metallurgy Laboratory), compulsory, 8th semester, during academic years: 2005-2011, Dept. Materials Science and Engineering, University of Ioannina.
- **7/2001 - 8/2001:** Internship at the Hellenic Aerospace Industry (H.A.I), S.A., 32009 Schimatari, Greece.
- **7/2000 - 8/2000:** Internship at the Hellenic Aerospace Industry (H.A.I), S.A., 32009 Schimatari, Greece.

RESEARCH INTERESTS AND SKILLS

- Electrochemical corrosion of coatings, alloys and composite materials (Galvanostats-Potentiostats).
- Marine real-time corrosion of coatings and alloys (Salt-Fog chambers).
- Thermal sprayed coatings, **H**igh **V**elocity **O**xygen **F**uel (HVOF) deposition.
- Wear resistance of coatings, alloys and composite materials.
- Mechanical properties of coatings, alloys and composites materials (tensile tests, toughness, hardness).
- Development and characterization of Al based composite materials.
- Heat treatment and oxidation of alloys (stainless steels, Al alloys, Ni alloys).
- Development and characterization of nanopowders.
- Development and characterization of nano Alumina Matrix Composites (AMCs).
- High Energy Ball Milling.
- Materials Characterizations Techniques (SEM-EDX, X-ray Diffraction, RAMAN spectroscopy, Differential Scanning Calorimetry-DSC).
- Metallurgical preparation and optical microscopy.
- Hardness, Microhardness, porosity, surface roughness measurements.
- Transmission Electron Microscopy (TEM), (trainee operator).

PARTICIPATION IN RESEARCH FUNDING PROGRAMS

- “Development and Characterization of composite materials with crystalline and amorphous Al matrix and reinforcing phase of ceramic nanoparticles through the use of low cost techniques”, JOINT RESEARCH AND TECHNOLOGY PROGRAMMES 2009 – 2011, HUNGARY – GREECE, MINISTRY FOR DEVELOPMENT **GENERAL SECRETARIAT FOR RESEARCH & TECHNOLOGY, Project Number HUN90**
- Operational Program "Education and Lifelong Learning" of the National Strategic Reference Framework (NSRF) - Research Funding Program: **THALES (Code 668 or NTUA202)**: Development of ceramic-matrix composite nano-materials with metallic inclusions - investigation of mechanical and physiochemical properties with experimental, theoretical and calculation methods (NAMCO). Coordination by the National Technical University of Athens.

MEMBER OF SCIENTIFIC ORGANIZATIONS

- Member of the Hellenic Ceramic Society.
- Member of the Hellenic Metallurgical Society.

PUBLICATIONS IN PEER-REVIEWED JOURNALS

1. G. Gkikas, A. Lekatou, **D. Sioulas**, A.S. Paipetis, “Effect of carbon nanotube enhanced adhesives on the degradation of bonded joints in corrosive environments“, accepted on *Plastics, Rubber and Composites* on 20 Mar 2014.
2. Gkikas G., Paipetis A., Lekatou A., Barkoula N.M., **Sioulas, D.**, Canflanca B., Florez, S., “Corrosion and environmental degradation of bonded composite repair”, *International Journal of Structural Integrity*, vol. 4, iss. 1, 2013, p. 67-77A.
3. Lekatou, A.K. Sfikas, A.E. Karantzalis, **D.Sioulas**, “Microstructure and corrosion performance of Al-32%Co alloys”, *Corrosion Science*, vol. 63, 2012, p. 193-209.
4. G. Gkikas, **D. Sioulas**, A. Lekatou, N.M. Barkoula, A.S. Paipetis, “Enhanced Bonded Aircraft Repair Using Nano-Modified Adhesives”, *Materials and Design*, vol. 41, 2012, p. 394-402.

PUBLICATIONS IN INTERNATIONAL CONFERENCE PROCEEDINGS

Oral presentations

1. F. Petrakli, **D. Sioulas**, A. Tsetsekou “Stabilization of aqueous nanoalumina suspensions”, E-MRS Spring Meeting, Lille , 26 – 30 May 2014, France.
2. F. Petrakli, **D. Sioulas**, A. Tsetsekou “Development of highly dispersed hybrid nanoalumina with the sol-gel method.”, 13th International Ceramics Congress CIMTEC, Montecatini Terme, 8 – 13 June 2014, Italy.
3. A. K. Sfikas, A. Lekatou, A. E. Karantzalis, **D. Sioulas**, “Microstructure and Corrosion Resistance of Aluminum Alloys Containing Complex Metallic Alloy Phases”, ICEAF III, 3rd Intern. Conf. Engineering against Fracture, Kos, 26-28 June 2013, Greece.
4. A.E. Karantzalis, A. Lekatou, A. Evangelou, V. Gousia, C. Miskaki, A. Sfikas, **D. Sioulas**, Z. Gacsi, P. Baumli, G. Kaptay, A. Makszimus, “Microstructure, Corrosion and Wear Resistance Evaluation of Aluminium Matrix Composites Reinforced by TiC and WC Nanoparticles”, ICEAF III, 3rd Intern. Conf. Engineering against Fracture, Kos, 26-28 June 2013, Greece.
5. G. Gkikas, **D. Sioulas**, A. Lekatou, A.S. Paipetis, “Use of nano-modified adhesives to improve the environmental degradation, the mechanical and corrosive properties of bonded joints”, ICEAF III, 3rd Intern. Conf. Engineering against Fracture, Kos, 26-28 June 2013, Greece.
6. **D. Sioulas**, A. Lekatou, D. Grimanelis, A.E. Karantzalis, “Corrosion and Wear Resistance of HVOF Micro- and Nano- Cermet Coatings on Al 7075”, ICEAF II, 2nd Intern. Conf. of Engineering Against Fracture, Mykonos, 22-24 June 2011, Greece.
7. G. Gkikas, A. Paipetis, A. Lekatou, N.M. Barkoula, **D. Sioulas**, B. Canflanca, S. Florez, “Corrosion and environmental degradation of bonded composite repair”, ICEAF II, 2nd Intern. Conf. Engineering against Fracture, Mykonos, 22-24 June 2011, Greece.
8. A. Siatou, A. Lekatou, A.E. Karantzalis, **D. Sioulas**, “Corrosion of archaeological bronze in non-hostile burial environment”, Int. Symp: History, Technology and Conservation of Ancient Metal, Glasses and Enamels”, 16-19 November 2011, Cotsen Hall, The American Scholl of Classical Studies at Athens, Athens, Greece.
9. G. Gkikas, A. Paipetis, N. M. Barkoula A. Lekatou, **D. Sioulas**, “Enhanced Bonded Aircraft Repair Using NanoModified Adhesives”, 14th Eur. Conf. on Composite Materials, Budapest 7-10 June 2010, Hungary, Paper ID: 660.

PUBLICATIONS IN NATIONAL CONFERENCES PROCEEDINGS

Oral presentations

1. F. Petrakli, **D. Sioulas**, A. Tsetsekou, “Development of highly dispersed nanoalumina through a hybrid sol-gel method”, 6th Pan Hellenic Conference in Ceramic Materials, Athens, 3-4 April, 2014.
2. **D. Sioulas**, A. Lekatou, D. Grimanelis, A.E. Karantzalis, “Characterization, corrosion and wear properties of micro and nano HVOF WC-Co-Cr coatings”, 5th Pan Hellenic Conference in Metallic Materials, Volos, 20-22 November, 2013.
3. A. Sfikas, A. Lekatou, A.E. Karantzalis, **D. Sioulas**, “The role of complex metallic alloys on the corrosion behavior of the Al-Co system”, 5th Pan Hellenic Conference in Metallic Materials, Volos, 20-22 November, 2013.
4. **D. Sioulas**, A. Lekatou, D. Grimanelis, A.E. Karantzalis, “Behaviour of nanocrystalline ceramometallic coatings in wear and exposure to acid rain simulated environment”, 4th Pan Hellenic Conference in Metallic Materials, Thessaloniki, 4-5 November, 2010.
5. Lekatou A., **Sioulas D.** Grimanelis D., Karanika A., Karantzalis A.E., “Nanocrystalline ceramometallic coating corrosion resistance in sea environment”, 5th Pan Hellenic Conference in Ceramic Materials, Athens 22-23 October, 2009.

Poster presentations

6. I. Kaimatzoglou, **D. Sioulas**, A. Tsetsekou, T. Pawlik, “High Energy Ball Milling of α -alumina at nanoscale level”, 6th Pan Hellenic Conference in Ceramic Materials, Athens, 3-4 April, 2014.
7. P. Pardalakis, F. Petrakli, **D. Sioulas**, A. Tsetsekou, “Synthesis of composite Al_2O_3 with ZrO_2 inclusions and study of sintering parameters”, 6th Pan Hellenic Conference in Ceramic Materials, Athens, 3-4 April, 2014.
8. A. Lekatou, A. Koletti, V. Moulia, A.E. Karantzalis, **D. Sioulas**, D. Grimanelis, “Toughness characterization of nanostructured cermet coatings”, 5th Pan Hellenic Conference in Metallic Materials, Volos, 20-22 November, 2013.
9. A.E. Karantzalis, A. Lekatou, C. Mishaki, A. Euaggelou, V. Gousia, A.K. Sfikas, **D. Sioulas**, P. Baumli, Z. Gacsi, G. Kaptay, A. Simon, “Microstructure and corrosion resistance of powder metallurgy process Al-matrix composites, reinforced by TiC and WC nanoparticles”, 5th Pan Hellenic Conference in Metallic Materials, Volos, 20-22 November, 2013.
10. F. Petrakli, **D. Sioulas**, A. Tsetsekou, “Synthesis of high dispersed nano-alumina employing hybrid sol-gel method”, 9th Pan Hellenic Conference of Chemical Engineering, Athens, 23-25 May, 2013.
11. A. Sfikas, A. Lekatou, A.E. Karantzalis, **D. Sioulas**, “Manufacture and characterization of binary Al-Co alloy”, 4th Pan Hellenic Conference in Metallic Materials, Thessaloniki, 4-5 November, 2010.

12. A. Serafis, A. Lekatou, **D. Sioulas**, A.E. Karantzalis, “Behaviour of cast hypereustenitic steel at high temperature oxidation” 4th Pan Hellenic Conference in Metallic Materials, Thessaloniki, 4-5 November, 2010.
13. A. Marinou, A. Lekatou, A. Poulaki, M. Vardavoulas, A.E. Karantzalis, **D. Sioulas**, H. Mavros, “Comparative study of austenitic stainless coatings with thermal spraying technique”, 4th Pan Hellenic Conference in Metallic Materials, Thessaloniki, 4-5 November, 2010.
14. **D. Sioulas**, A. Lekatou, “Corrosion of an NiCrNbFe superalloy in aqueous solutions”, 2th Hellenic Conference in Metallic Materials, Patra, 6-7 December, 2007.

COMPUTER KNOWLEDGE

Proficient user of Word processing, Spreadsheets and Information and Communication.

Proficient user of Microsoft Excel with application in Materials Science.

Proficient user of Statistical Software (OriginPro).

Independent user of AutoCAD.