

CURRICILUM VITAE

Dr. Emmanuel P. Georgiou
Metallurgy and Materials Science Engineer

Personal Information:

Name: Emmanuel Georgiou
Date of birth: 08/10/1979
Place of birth: Athens, Greece
Address: Hellenic Air Force Academy
Department of Aeronautical Sciences
Dekelia Air Base,
13671, Attika
Greece
E-mail Address: georgiou.man@gmail.com
e.georgiou@falex.eu

Education:

1994-1997 5th Public High School, Marousi, Athens
Graduation Grade: 18.7 out of 20

1997-2002 School of Mining and Metallurgical Engineering
National Technical University of Athens
Grade: 7.26 out of 10
Diploma Thesis: “Heat Treatment and Properties of Cast 319
Aluminium Alloy”.
Grade: 10 out of 10

2003-2009 Doctoral Degree in Materials Science and Engineering at the
Laboratory of Physical Metallurgy, NTUA Athens
Ph.D. Thesis: “Cold Rolling and Properties of 5083
Aluminium Alloy”.

2010-2019 Post-Doctoral Research at Department of Metallurgy &
Materials Engineering (MTM), Catholic University of
Leuven

Awards and Scholarships 2003, State Scholarship for Postgraduate Studies from the
Greek Research Foundation (IKY)
2008, “Thomaidio Award for Art and Science” for Scientific
Publications from National Technical University of Athens

(NTUA)

2009, “Thomaidio Award for Art and Science” for Scientific Publications from National Technical University of Athens (NTUA)

2019, ‘The Westinghouse Prize’ for the best paper published in Transactions of the IMF that has shown the most valuable development in the science and practice of electrochemistry in general and electrodeposition in particular.

Foreign Languages

English, Excellent (Certificate of Proficiency in English, Cambridge)

Professional Experience:

01/08/2000- 31/08/2000	Department of Research, Greek Public Power Corporation S.A. (DEI), Greece
01/08/2001- 31/08/2001	Department of Research, Greek Public Power Corporation S.A. (DEI), Greece
01/06/2010-01/12/2019	Post-Doctoral Researcher, Department of Metallurgy and Materials Engineering (MTM), Katholieke Universiteit Leuven (KU Leuven), Belgium
01/12/2014- 31/08/2022	Project Manager, Falex Tribology N.V., Belgium
01/09/2022-now	Assistant Professor, Hellenic Air Force Academy

Teaching Experience:

2003-2008	Teaching Activities in the Following Lessons: Postgraduate Courses in School of Mining and Metallurgical Engineering: <ul style="list-style-type: none">• Casting and Solidification of Metals• Surface Science• Industrial Alloys• Powder Metallurgy
2003-2008	Laboratory Exercises in the Postgraduate Course of NTUA “Materials Science and Technology”
2003-2008	Laboratory Exercises Conducted During the Undergraduate and Postgraduate Studies in the School of Mining and Metallurgical Engineering, NTUA:

1. Casting of Aluminium Alloys.
2. Casting of Copper Alloys.
3. Casting of Zinc Alloys.
4. Casting of Lead-Tin Alloys.
5. Correlation Between Structure and Micro-Hardness of Metallic Materials.
6. Non-Destructive Testing of Steels and Aluminium Alloys by Ultrasonic Testing Technique.
7. Non-Destructive Testing of Metallic Materials by Dye Penetrant Inspection Technique.
8. Tensile Properties of Metallic and Coated Materials.
9. Electropolishing of Aluminium and Copper.
10. Cold Rolling of Aluminium Alloys.
11. Thermal Oxidation of Metallic Materials.
12. Cyclic Oxidation of Metallic Materials.
13. Anodizing of Aluminium Alloys.
14. Fracture Toughness of Metallic Materials.
15. Effect of Grain Size on the Mechanical Properties of Metallic Materials.
16. Effect of Grain Size on the Electrochemical Properties of Metallic Materials.
17. Cathodic Hydrogen Charging of Metallic Materials.
18. Potentiodynamic Corrosion of Metallic Materials.
19. Potentiostatic Corrosion of Metallic Materials.
20. Wear Behaviour of Metallic and Ceramic Materials.
21. Corrosive Wear of Metallic Materials.
22. Deposition of Alloy Coatings on Metallic Substrates by Electrodeposition Technique.
23. Deposition of Composite Metallic Coatings on Metallic Substrates by Electrodeposition and Electroless Deposition Techniques.
24. Bending Properties of Coated Metallic Materials.
25. Structure and Properties of Multilayered Coated Metallic Materials.
26. Thermal Conductivity of Glass.

2010-2013

Daily Supervisor:

Bachelor Thesis:

1. S. Van Cauwenberge: "Cobalt as self-smearing coating on bearings at a temperature of 450° C"

Master Thesis:

1. I. Kwee: "Tribological Behavior of Nanostructured Co-Sn Alloy Coatings Investigated at the Meso – and Macro – Load Scale"
2. S. Loftian: "Nano-structured Multilayered Co-Sn/Ni-Sn Coatings"
3. H. Wu: "High Temperature Wear Resistant Nano-

structured Sprayed Coatings”

4. V. Palacios Cevallos: “Effect of environmental embrittlement on the tribological properties of aluminium alloys”
5. H. Wang: “Nano-structured gradient Co-Sn alloy coatings”

2022-now

Supervisor:

Diploma Thesis:

1. P. Chondros: “Failure analysis of dorsal wings”
2. N. Alexopoulou: “Effect of heat treatment on the corrosion behaviour of 2024 Al alloy”
3. S. T: “Effect of hydrogen charging on the electrical properties of brass”

Member of Scientific Communities and Federations:

- Technical Chamber of Greece
- Greek Ceramic Society
- Greek Metallurgical Society
- Greek Association of Mining and Metallurgical Engineers
- Greek Society of Biomaterials
- Society for Tribology and Lubrication Engineers

Participation in Scientific Programs:

2003-2005	“Microwave and Corrosion Behaviour of Ceramer – Conductive Polymer Composite Coating”, NATO Science Collaborative Programme
2004-2006	“Technological Properties of Multilayered Coated Materials”, Research Promotion Foundation of Cyprus
2005-2009	“Development of Thin Film Photovoltaics”, Reinforcement Programme of Human Research Manpower - “PENED 2003”
2010-2013	“Supersonic Deposition of Nano-structured Surfaces” - “Seventh Framework Programme FP7”
2012-2015	“Oil & Sugar” - “Seventh Framework Programme FP7 – Marie Curie Actions”
2014-2016	“Nanoscale Enhanced Characterisation of Solar Selective Coatings” - “Seventh Framework Programme FP7
2014-2017	“Multiscale COmponents-MATerials-COnTact interactions in braking systems and aircraft compressors” - “Seventh Framework Programme FP7
2014-2016	“HardAlt” - “Seventh Framework Programme FP7
2015-2016	“Development of a bearing concept for high temperature operation with low external leakage and no squeak noise”

FAURECIA– Industrial project

2016-2019	“PROtective composite Coatings via Electrodeposition & Thermal Spraying–PROCETS” Horizon 2020 EU project
2016-2021	“ASPECT – Advanced Simulation and control of Tribology in Metal Forming Processes for the North-West European Consumer Goods and Transport Sectors” – EU INTERREG

Development of Standards:

ASTM (under evaluation)	Standard Test Method for Measuring the Adhesion and Tackiness Properties of Grease Using the Falex TAA Method
ASTM (under evaluation)	Proposed standard test method for predicting coefficient of friction and wear properties of hydraulic fluids using a FALEX MCTT VANE PUMP (FMVP) apparatus

Reviewer for Scientific Journals:

- Actuators
- AIMS Materials
- Applied Science
- Applied Surface Science
- Batteries
- Coatings
- Corrosion and Material Degradation
- Crystals
- Energies
- Entropy
- Hydrogen
- Industrial Lubrication and Tribology
- Innovations in Corrosion and Materials Science
- JOM
- Journal of Alloys and Compounds
- Journal of Industrial Lubrication and Tribology
- Journal of Manufacturing and Materials Processing
- Journal of Zhejiang University-SCIENCE A
- JoVe
- Lubricants
- Machines
- Materials
- Materials Chemistry and Physics
- Metals
- Metallurgical Research & Technology
- Micromachines
- Molecules

- Nanomaterials
- Polymers
- Surface and Coatings Technology
- Surface Engineering
- Thin Solid Films
- Tribology in Industry
- Wear

Editorial board:

- Tribology - Materials, Surfaces & Interfaces (Taylor & Francis)

Publications in Scientific Journals:

1. C.N. Panagopoulos, **E.P. Georgiou**
“Wear Behaviour of 5083 Wrought Aluminium Alloy Under Free Corrosion Conditions”
Tribology: Materials, Surfaces and Interfaces, 1 (2007) 161-164
2. C.N. Panagopoulos, **E.P. Georgiou**
“The Effect of Hydrogen Charging on the Mechanical Behaviour of 5083 Wrought Aluminium Alloy”
Corrosion Science, 49 (2007) 4443-4451
3. C.N. Panagopoulos, **E.P. Georgiou**, K. Giannakopoulos
“The Effect of Heat Treatment on the Corrosion Behaviour of 319 Cast Aluminium Alloy”
Materials and Corrosion, 60 (2009) 415-418
4. C.N. Panagopoulos, **E.P. Georgiou**, A. Gavras
“Corrosion and Wear of 6082 Aluminium Alloy”
Tribology International, 42 (2009) 886-889
5. C.N. Panagopoulos, **E.P. Georgiou**
“Surface Mechanical Behaviour of Ni-P / Zincate Coated Aluminium Alloy”
Applied Surface Science, 255 (2009) 6499-6503
6. C.N. Panagopoulos, **E.P. Georgiou**, P.E. Agathocleous
“Mechanical Behaviour of Zn-Fe Alloy Coated Mild Steel”
Materials & Design, 30 (2009) 4267-4272
7. C.N. Panagopoulos, **E.P. Georgiou**, A. Gavras
“Composite Zinc-Fly Ash Coating on Mild Steel”
Surface and Coatings Technology, 204 (2009) 37-41
8. C.N. Panagopoulos, **E.P. Georgiou**
“Cold Rolling and Lubricated Wear of 5083 Aluminium Alloy”
Materials & Design, 31 (2010) 1050-1055
9. C.N. Panagopoulos, **E.P. Georgiou**, M.G. Tsoutsouva, M. Krompa
“Composite Multilayered Coatings on Mild Steel”
Journal of Coatings Technology & Research, 8 (2011) 125-133
10. C.N. Panagopoulos, **E.P. Georgiou**, A. Tsopani, L. Piperi
“Composite Ni-Co-Fly Ash Coatings on 5083 Aluminium Alloy”
Applied Surface Science, 257 (2011) 4769-4773

11. C.N. Panagopoulos, **E.P. Georgiou**, K. Simeonidis
 “Lubricated wear of β leaded brass”
 Tribology International, 50 (2012) 1-5
12. J. Kusinski, S. Kac, P. Matteazzi, A. Collella, S. Dosta, J. Fernandez, J.-P. Celis, **E.P. Georgiou**
 “The FeCuAl-Al₂O₃ coatings deposited by means of supersonic technique - microstructure and properties”
 INŻYNIERIA MATERIAŁOWA 6 (2012) 1-4
13. C.N. Panagopoulos, **E.P. Georgiou**, C. Markopoulos
 “Corrosion and wear of zinc in various aqueous based environments”
 Corrosion Science, 70 (2013) 62-67
14. **E.P. Georgiou**, S. Achanta, S. Dosta, J. Fernandez, P. Matteazzi, J. Kusinski, J.-P. Celis
 “Structural properties and wear behaviour of supersonic sprayed nanostructured cermets”
 Applied Surface Science, 275 (2013) 142–147
15. C.N. Panagopoulos, **E.P. Georgiou**, D. Chaliampalias
 “Cathodic Hydrogen Charging of Zinc”
 Corrosion Science, 79 (2014) 16-20
16. **E.P. Georgiou**, J.G. Buijnsters, H. Wang, A.K. Basak, J.-P. Celis
 “Nanostructured gradient Co-Sn electrodeposits as alternative to Sn lubricating coatings”
 Surface and Coatings Technology, 271 (2015) 148-155
17. J. Kusinski, S. Kac, K. Kowalski, B. Dubiel, S. Dymek, A. Czyska-Filemonowicz, S. Dosta, J.-P. Celis, **E.P. Georgiou**, P. Matteazzi
 “Microstructural characterization of nanostructured supersonic sprayed Ni-Sn coatings after wear tests at elevated temperature”
 International Journal of Materials Research, 106 (2015) 750-757
18. C.N. Panagopoulos, **E.P. Georgiou**, D.A. Lagaris, V. Antonakaki
 “The effect of nanocrystalline Ni-W coating on the tensile properties of copper”
 AIMS Materials Science, 3 (2016) 324-338
19. **E.P. Georgiou**, S. Dosta, J. Fernández, P. Matteazzi, K. Kowalski, J. Kusinski, R.R. Piticescu, J.-P. Celis
 “Structural and tribological properties of nanostructured supersonic cold sprayed Ni - 20 wt.% Sn coatings”
 Journal of Thermal Spray Technology, 25 (2016) 1029–1039
20. **E.P. Georgiou**, D. Drees, M. De Bilde
 “The quantitative method for measuring grease tackiness”
 Lube Magazine, 132 (2016) 18-19
21. C.N. Panagopoulos, **E.P. Georgiou**, G.S. Trandas, K.I. Giannakopoulos
 “Wear behaviour of nanostructured polymer based safety films on soda-lime glass”
 Coatings, 6 (2016) 26
22. **E.P. Georgiou**, T. Van der Donck, M. Peeters, D. Drees, J.-P. Celis
 “Proposed method to examine the effect of cycling temperatures on friction illustrated with intermetallic Ni-Sn coatings sliding against corundum”
 Wear, 368-369 (2016) 453-460
23. **E.P. Georgiou**, D. Drees
 “Tribocorrosion: risks and potentials”

- Lube Magazine, 107 (2016)
24. **E.P. Georgiou**, D. Drees, S. Dosta, P. Matteazzi, J. Kusinski, J.-P. Celis
“Wear evaluation of nanostructured Ti cermets for joint reconstruction”
Biotribology, 11 (2017) 44-50
 25. **E.P. Georgiou**, V.P. Cevallos, T. Van der Donck, D. Drees, J. Meersschaut, C.N. Panagopoulos, J.-P. Celis
“Effect of cathodic hydrogen charging on the wear behavior of 5754 Al alloy”
Wear, 390-391 (2017) 295-301
 26. **E.P. Georgiou**, T. Van der Donck, J.-P. Celis
“Electrodeposition and structural characteristics of Intermetallic Ni-Sn based coatings”
Transactions of the IMF, 95 (2017) 301-307
 27. **E.P. Georgiou**, J.-P. Celis, C.N. Panagopoulos
“The effect of cold rolling on the hydrogen susceptibility of 5083 aluminum alloy”
Metals MDPI, 7 (2017) 451
 28. **E.P. Georgiou**, D. Drees, M. De Bilde, M. Anderson
“Pre-screening hydraulic fluids for vane pumps: a ranking method”
Lube Magazine, 143 (2018) 38-43
 29. **E.P. Georgiou**, D. Drees, M. De Bilde, M. Anderson
“Can we put a value on the adhesion and tackiness of greases?”
Tribology letters, 66 (2018) 60
 30. **E.P. Georgiou**, D. Drees, M. De Bilde, M. Anderson
“Pre-screening of hydraulic fluids for vane pumps: An alternative to Vickers vane pump tests”
Wear, 404-405 (2018) 31-37
 31. C.N. Panagopoulos, **E.P. Georgiou**, K.I. Giannakopoulos, P.G. Orfanos
“Effect of pH on stress corrosion cracking of 6082 Al Alloy in different solutions”
Metals MDPI, 8 (2018) 0578
 32. **E.P. Georgiou**, I.S.K. Kwee, T. Van der Donck, D. Drees, J.-P. Celis
“Synthesis, characterization and tribological behaviour of electrodeposited nanostructured Co-23 wt.% Sn coatings”
Wear 430-431 (2019) 290-298
 33. **E.P. Georgiou**, D. Drees, M. De Bilde, M. Anderson
Quantitative approach to measuring the adhesion and tackiness of industrial greases
Tribologie und Schmierungstechnik, 66 (2019) 37-43
 34. **E.P. Georgiou**, L.M. Lopes, M. De Bilde, D. Drees
How can we measure sliding wear in an efficient way?
Wear, 458-459 (2020) 203414
 35. **E.P. Georgiou**, D. Drees, M. De Bilde, M. Feltman, M. Anderson
Grease adhesion and tackiness: Do they influence friction?
NLGI Spokesman, 84 (2020) 20-25
 36. **E.P. Georgiou**, D. Drees, M. De Bilde, M. Anderson, M. Carlstedt, O. Mollenhauer
Quantification of a tackiness of a grease: The road to a method
Lubricants 9 (2021) 32

37. **E.P. Georgiou**, D. Drees, G. Timmermans, A. Zoikis-Karathanasis, M. Pérez-Fernández, L. Magagnin, J.-P. Celis
High Performance Accelerated Tests to Evaluate Hard Cr Replacements for Hydraulic Cylinders
Coatings MDPI, 11 (2021) 1551
38. **E.P. Georgiou**, D. Drees, T. Van der Donck, J. Hazrati, M. Veldhuis, B. Aha, M. Anderson, J.-P. Celis
“A New Test Method to Simulate Deep Drawing Phenomena on the Lab Scale”
Tribology Transactions, 65 (2022) 892-900
39. **E.P. Georgiou**, D. Drees, L.M. Lopes, C. Gerlach
“Measuring the frictional behavior and adhesion of PET bottles”
Lubricants MDPI, 10 (2022) 204
40. **E.P. Georgiou**, D. Drees, K. Helmetag, T. Van der Donck, L.M. Lopes, F. Semal, M. De Bilde, M. Anderson
“Expanding the applicability of ASTM D3233A Pin & Vee Block method to evaluate lubricant emulsions for cutting applications”
Tribology - Materials, Surfaces & Interfaces, 17 (2023) 22-33
41. **E.P. Georgiou**, E.P. Georgiou, A. Koutsomichalis, A. D. Drees, C.N. Panagopoulos
“Tribological performance of thermal sprayed coatings under abrasive conditions”
Tribology and Materials, 2 (2023) 1-7
42. C.N. Panagopoulos, **E.P. Georgiou**, G.D. Plainakis
“Thermal oxidation of nanocrystalline Ni-W coated copper”
Transactions of IMF, 101 (2023) 269-274
43. **E.P. Georgiou**, D. Drees, L. M. Lopes, M. De Bilde & A. Koutsomichalis
“Investigating the effect of temperature and time on the starvation of lubricants for the wind turbine industry”
Tribology - Materials, Surfaces & Interfaces, 17 (2023) 179-186
44. C.N. Panagopoulos, **E.P. Georgiou**
“The Effect of Cold Rolling on the Corrosion Behaviour of 5083 Aluminium Alloys”
Metals MDPI, 14 (2024) 159

Publications in Scientific Books:

45. C.N. Panagopoulos, **E.P. Georgiou**
“Cathodic Hydrogen Charging of aluminium Alloys”
Aluminum Alloys: Preparation, Properties and Applications, Nova Science Publishers, Inc. New York (2010)
46. **E.P. Georgiou**, D. Drees, T. Van der Donck, S. Economou, J.-P. Celis
Parallel wear tests: the need for statistical analysis in tribology
Testing Tribocorrosion of Passivating Materials Supporting Research and Industrial Innovation: A Handbook, 2nd Ed., Taylor & Francis (2021)

Publications in International Scientific Conferences:

47. M. Zaharescu, M. Crisan, M. Raileanu, L. Predoana, S. Preda, C.N. Panagopoulos, **E.P. Georgiou**
“Nanostructured Oxide Layers with Anticorrosive and/or Catalytic Properties”
10th Conference on surface Nanolayers, Slovenia (2005)

48. C.N. Panagopoulos, **E.P. Georgiou**, E. Zacharis
 “Lubricated Sliding Wear Behavior of 5083 Wrought Aluminum Alloy”
 International Conference on Aluminium, ALUMINIUM 2006, Essen, Germany (2006)
49. C.N. Panagopoulos, **E.P. Georgiou**, O. Tseris
 “The Effect of Heat Treatment on Some Properties of 7075 Wrought Aluminum Alloy”
 International Conference on Aluminium, ALUMINIUM 2006, Essen, Germany (2006)
50. C.N. Panagopoulos, **E.P. Georgiou**, Chr. Tsiagkli
 “The Effect of Grain Size on the Wear of Copper”
 International Scientific Conference, Material Science & Manufacturing Technology – MITECH 2009, Prague, Czech Republic (2009)
51. J.-P. Celis, **E.P. Georgiou**, A. Basak
 “Plasma Sprayed Wear Resistant Nanostructured Coatings”
 International Scientific Conference, 1st Surface Treatment Symposium, Istanbul, Turkey (2011)
52. **E.P. Georgiou**, S. Achanta, S. Dosta, P. Matteazzi, J. Kusinski, J.-P. Celis
 “Structural properties and wear behaviour of supersonic sprayed nanostructured cermets”
 NANOSMAT 2012, Prague, Czech Republic (2012)
53. **E.P. Georgiou**, J. Kusinski, J.-P. Celis,
 “Electrodeposition and structural characteristics of as-plated and heat treated intermetallic nickel-tin based coatings”
 Intermetallics 2013, Germany (2013)
54. **E.P. Georgiou**, S. Dosta, P. Matteazzi, J. Kusinski, J.-P. Celis
 “High temperature wear behavior of nanostructured Fe-Cu-Al-Al₂O₃ cermets”
 NANOSMAT 2013, Granada, Spain (2013)
55. P. Matteazzi, A. Colella, J. De Stefani, **E.P. Georgiou**, J. Kusinski
 “Supersonic deposition of nanostructured surfaces”
 NANOTECHITALY 2013, Venice, Italy (2013)
56. J.-P. Celis, P. Matteazzi, I. Buijnsters, **E.P. Georgiou**, D. Drees
 “Nanomaterials of interest to tribology made accessible through surface treatments”
 Balttrib 2013, Kaunas, Lithuania (2013)
57. **E.P. Georgiou**, S. Achanta, D. Drees, S. Dosta, J. Fernández, P. Matteazzi, J. Kusinski, J.-P. Celis
 “Wear behaviour of nanostructured supersonic sprayed Ti-TiC cermets”
 Balttrib 2013, Kaunas, Lithuania (2013)
58. Kusinski, S. Kac, G. Szwachta, S. Dosta, J. Garcia-Forgas, **E.P. Georgiou**
 “Wear Resistance of the Ti/TiC Coatings Deposited by Means of Supersonic Cold Gas Spray Technique”
 TMS 2014, San Diego, California, US (2014)
59. D. Drees, **E.P. Georgiou**
 “Improvements to tribological testing for industry, practical solutions”
 NORDTRIB 2014, Aarhus, Denmark (2014)
60. **E.P. Georgiou**, D. Drees, J.-P. Celis, N. Schwarzer
 “About optimized tribological testing conditions using analytical contact mechanical modeling”

- ICTMP 2014, Darmstadt, Germany (2014)
61. D. Drees, **E.P. Georgiou**, S. Achanta, H. Van Hest, T. Delvigne, O. Courtois, L. Guerouane
“Thin layer activation technology as on-line wear measurement in the tribology lab”
LUBMAT 2014, Manchester, UK (2014)
62. J. Kusinski, S. Kac, K. Kowalski, S. Dosta, **E.P. Georgiou**, P. Matteazzi, B. Dubiel, S. Dymek, A.Czyrska-Filemonowicz
“Microstructural characterization of nanostructured supersonic sprayed Ni-Sn coatings after wear test at elevated temperature”
XV International Conference on Electron Microscopy, Cracow, Poland (2014)
63. **E.P. Georgiou**, J.G. Buijnsters, H. Wang, A.K. Basak, J.-P. Celis
“Nanostructured gradient Co-Sn electrodeposits as alternative to Sn lubricating coatings”
NANOSMAT 2014, Dublin, Ireland (2014)
64. **E.P. Georgiou**, D. Drees, J.-P. Celis
“Establishing a tribological methodology to investigate thin nanostructured intermetallic coatings”
NANOSMAT 2014, Dublin, Ireland (2014)
65. D. Drees, **E.P. Georgiou**, J.-P. Celis
“Establishing a methodology for studying the tribological properties of cold sprayed nanostructured coatings”
Tribology Frontiers, Chicago, Illinois, US (2014)
66. **E.P. Georgiou**, D. Drees, S. Dosta, P. Matteazzi, J. Kusinski, J.-P. Celis
“A bio-tribological methodology to investigate nanostructured Ti based composites for hip-joints”
STLE 2015, Dallas, Texas, US (2015)
67. **E.P. Georgiou**, D. Drees, J.-P. Celis
“Existing challenges in investigating the wear behavior of nanostructured intermetallic coatings”
STLE 2015, Dallas, Texas, US (2015)
68. D. Drees, **E.P. Georgiou**, H. Van Hest, T. Delvigne, O. Courtois, L. Guerouane
“Thin layer activation technology: an efficient and accurate tool for on-line wear measurement”
STLE 2015, Dallas, US (2015)
69. D. Drees, **E.P. Georgiou**
“Friction modifiers put to the test. Can we influence friction?”
20th International Colloquium Tribology, TAE 2016, Stuttgart, Germany (2016)
70. **E.P. Georgiou**, D. Drees
“Parallel wear tests: the power of statistics”
20th International Colloquium Tribology, TAE 2016, Stuttgart, Germany (2016)
71. **E.P. Georgiou**, D. Drees, M. Peeters, J.-P. Celis
“High temperature wear evaluation of materials- challenges and industrial case studies”
STLE 2016, Las Vegas, Nevada, US (2016)

72. D. Drees, **E.P. Georgiou**, A. Zoikis-Karathanasis, T. Kosanovic Milickovic, I. Deligkiozi, J.-P. Celis
 “Nanostructured composite Ni-P electrodeposits as alternative to hard chrome coatings”
 STLE 2016, Las Vegas, Nevada, US (2016)
73. **E.P. Georgiou**, D. Drees
 “Frictional behaviour of surgical sutures”
 ICoBT 2016, London, UK (2016)
74. **E.P. Georgiou**, D. Drees, S. Dosta, P. Matteazzi, J. Kusinski, J.-P. Celis
 “Wear evaluation of nanostructured Ti cermets for joint reconstruction”
 ICoBT 2016, London, UK (2016)
75. J.-P. Celis, **E.P. Georgiou**, D. Drees
 “Experimental approach of tribocorrosion”
 EUROCORR 2016, Montpellier, France (2016)
76. **E.P. Georgiou**, D. Drees, M. De Bilde
 “A methodology to investigate the adhesion properties and tackiness of industrial greases”
 Tribology Frontiers 2016, Chicago, Illinois, US (2016)
77. **E.P. Georgiou**, D. Drees, V.P. Cevallos, T. Van der Donck, J.-P. Celis
 “Risk of performing tribo-corrosion tests in a cathodic environment”
 Tribology Frontiers 2016, Chicago, Illinois, US (2016)
78. **E.P. Georgiou**, D. Drees, M. De Bilde
 “A new test method to evaluate hydraulic fluids for vane pumps”
 Oildoc 2017, Rosenheim, Germany (2017)
79. **E.P. Georgiou**, D. Drees, M. De Bilde
 “Can we predict vane pump wear with a short lab test?”
 STLE 2017, Atlanta, Georgia, US (2017)
80. K. Helmetag, H. Warren, D. Drees, **E.P. Georgiou**, M. De Bilde
 “The role of the torque curve for low-yield-strength alloys”
 STLE 2017, Atlanta, Georgia, US (2017)
81. D. Drees, **E.P. Georgiou**, M. G. Plint
 “Statistically relevant adhesive wear testing made cost efficient”
 DGM Werkstoffprüfung 2017, Berlin, Germany (2017)
82. **E.P. Georgiou**, D. Drees, H. Van Hest, G. Timmermans, J. Sabbe
 “Replacement of Hard Chromium (Cr6) in industrial and automotive applications: the importance of a sound tribological approach”
 TAE, Esslingen, Germany (2018)
83. **E.P. Georgiou**, D. Drees, M. De Bilde, M. Anderson
 “Effect of testing parameters on the tackiness of greases”
 STLE 2018, Minneapolis, Minnesota, US (2018)
84. **E.P. Georgiou**, D. Drees, H. Van Hest, G. Timmermans, J. Sabbe, V. Crespo
 “Establishing a tribological approach to evaluate Hard Chromium replacements for industrial applications”
 STLE 2018, Minneapolis, Minnesota, US (2018)
85. **E.P. Georgiou**, D. Drees, M. De Bilde, M. Anderson
 “A new test method to evaluate hydraulic fluids for vane pumps”
 STLE 2018, Minneapolis, Minnesota, US (2018)
86. K. Helmetag, D. Drees, **E.P. Georgiou**, M. De Bilde
 “Further exploration of the effects of aluminium testing specimens in bench testing of machining fluids”

- STLE 2018, Minneapolis, Minnesota, US (2018)
87. D. Drees, **E.P. Georgiou**
 “Cost and time efficient wear generators for statistically valid materials durability databases”
 NORDTRIB 2018, Uppsala, Sweden (2018)
88. C. Wang, J. Hazrati, M.B. de Rooij, M. Veldhuis, B. Aha, **E.P. Georgiou**, D. Drees, A.H. van der Boogaard
 “Temperature dependent micromechanics-based friction model for cold stamping processes”
 NUMISHEET 2018, Tokyo, Japan (2018)
89. **E.P. Georgiou**, D. Drees, M. De Bilde, M. Anderson
 Adhesion and tackiness of industrial greases: a new experimental approach?
 OILDOC Conference 2019, Rosenheim, Germany
90. **E.P. Georgiou**, D. Drees, M. De Bilde, M. Anderson
 Measuring grease tackiness objectively
 ELGI 2019, Athens, Greece
91. **E.P. Georgiou**, D. Drees, M. De Bilde, M. Anderson
 Sensitivity analysis of the FMVP test method to evaluate hydraulic fluids for vane pumps
 STLE 2019, Nashville, USA
92. **E.P. Georgiou**, D. Drees, M. De Bilde, M. Anderson
 How reliable and sensitive is the new Indentation/Retraction method in measuring tackiness of industrial greases?
 STLE 2019, Nashville, USA
93. **E.P. Georgiou**, D. Drees, M. De Bilde, M. Anderson
 Adhesion and tackiness: How do they influence the frictional performance of greases?
 NLGI 2019, Las Vegas, USA
94. F. König, **E.P. Georgiou**, D. Drees, G. Jacobs, C. Sous
 On the applicability of wear coefficients from block-on-ring testing for wear prediction in sliding bearing systems
 TAE 2020, Esslingen, Germany
95. D. Drees, **E.P. Georgiou**, L.M. Lopes
 Prediction of durability in tribological systems: the need for data production
 Lubmat 2020 Online Conference
96. **E.P. Georgiou**, M. Carlstedt, O. Mollenhauer, D. Drees
 A new method to evaluate compression, adhesion and thread formation (tackiness) in biomedical and healthcare viscoelastic fluids
 ICoBT 2021, Online Conference
97. D. Drees, M. De Bilde, **E.P. Georgiou**
 Improving and Expanding the Applicability of the ASTM D3233 Pin & Vee Block Method for Cutting Fluid Evaluation: Correlation with a Real Cutting Operation
 STLE 2021, Online Conference
98. D. Drees, **E.P. Georgiou**, M. Veldhuis, Javad Hazrati
 A New Method to Simulate Strip Drawing Tests on the Lab-Scale
 STLE 2021, Online Conference
99. **E.P. Georgiou**, D. Drees, O. Mollenhauer
 A New Method to Evaluate Compression, Adhesion and Thread Formation (Tackiness) in Biomedical and Healthcare Products

- STLE 2021, Online Conference
100. **E.P. Georgiou**, D. Drees, M. De Bilde, M. Anderson, S. Achanta, M. Jungk
Adhesion and tackiness of greases: from concept to an ASTM standard method
STLE 2021, Online Conference
101. D. Drees, **E.P. Georgiou**
Materials durability testing by an application related approach to lab-scale tribology testing
BALKANTRIB 2021, Online Conference
101. **E.P. Georgiou**, D. Drees, T. Van Der Donck, A. Koutsomichalis, J.-P. Celis
“How can we successfully study tribological failures on the lab-scale?”
ICEAF VI 2021, Online Conference
102. **E.P. Georgiou**, D. Drees, M. De Bilde, M. Anderson
“Expanding the applicability of ASTM D3233A method to evaluate cutting fluids”
OilDoc 2021, Rosenheim, Germany
103. **E.P. Georgiou**, D. Drees, L.M. Lopes, M. De Bilde, M. Anderson
“How to Reduce Time and Cost in Tribology Testing?”
TAE 2022, Esslingen, Germany
104. **E.P. Georgiou**, D. Drees, L.M. Lopes, M. De Bilde, M. Anderson
“How can we evaluate the frictional and wear performance of shock absorbers on the lab-scale: a new tribological approach”
STLE 2022, Orlando, Florida, US
105. **E.P. Georgiou**, L.M. Lopes, M. De Bilde, E. Willett, M. Anderson, D. Drees
“How does temperature affect grease adhesion and tackiness?”
STLE 2022, Orlando, Florida, US
106. D. Drees, **E.P. Georgiou**, L.M. Lopes, M. De Bilde, M. Anderson
“Is the Miller ASTM G75 abrasivity test obsolete?”
STLE 2022, Orlando, Florida, US
107. **E.P. Georgiou**, D. Drees, K. Helmetag, M. De Bilde
“Evaluating aqueous lubrication for light weight metal forming and cutting by an extended standard method”
7th World Tribology Congress, Lyon, France (2022)
108. D. Drees, L.M. Lopes, M.D. Bilde, **E.P. Georgiou**
“How can we simulate bio-medical tribological contacts on the lab scale?”
IBERTRIB 2022, Setubal, Portugal (2022)
109. D. Drees, L.M. Lopes, M.D. Bilde, **E.P. Georgiou**
“The challenge of measuring friction and wear of industrial components on the lab scale”
IBERTRIB 2022, Setubal, Portugal (2022)
110. **E.P. Georgiou**, A. Koutsomichalis, A. D. Drees, C.N. Panagopoulos
“Tribological performance of thermal sprayed coatings under abrasive conditions”
8th HMS International Conference, Patra, Greece (2022)
111. D. Drees, **E.P. Georgiou**, L.M. Lopes, M. De Bilde
“Investigating the effect of temperature and time on the starvation of lubricants for the wind turbine industry”
STLE 2023, Long Beach, California, US
112. D. Drees, **E.P. Georgiou**, L.M. Lopes, Christian Gerlach

- “How can we avoid PET bottle pile-ups during conveying by better understanding friction and adhesion phenomena”
STLE 2023, Long Beach, California, US
113. D. Drees, **E.P. Georgiou**, L.M. Lopes, T. Van Der Donck, A. Koutsomichalis, J.-P. Celis
“Towards an accelerated protocol for the evaluation of solar cells ”
STLE 2023, Long Beach, California, US
114. **E.P. Georgiou**, A. Koutsomichalis, D. Drees, J.-P. Celis
“Utilization of nanostructured coatings for tribocorrosive applications”
7th International Conference of Engineering Against Failure (ICEAF VII)
2023, Spetses, Greece
115. L.M. Lopes, D. Drees, **E.P. Georgiou**
“How to select the right tribological lab test for practical applications”
4th International Brazilian Conference on Tribology – TriboBR 2023, Vitória-ES, Brazil, 2023
116. **E.P. Georgiou**, A. Koutsomichalis, N.M. Vaxevanidis, D. Drees, J.-P. Celis
“The challenge of studying tribological applications on the lab-scale”
ROTRIB 2024 – The 15th International Conference on Tribology, Bucharest, Romania, 2024
117. **E.P. Georgiou**, A. Koutsomichalis, N.M. Vaxevanidis, D. Drees, J.-P. Celis
“Tribological performance of nanostructured intermetallic electrodeposits at different load-scales”
ROTRIB 2024 – The 15th International Conference on Tribology, Bucharest, Romania, 2024

Publications in Greek Scientific Conferences:

118. C.N. Panagopoulos, **E.P. Georgiou**, I.D. Grammenos
“Dry and Lubricated Wear of Leaded b-Brass”
2nd Hellenic Conference on Metallic Materials, Athens, Greece (2005)
119. C.N. Panagopoulos, **E.P. Georgiou**, M. Lapidaki
“Study of Intermetallic Nickel-Aluminium Coatings on Mild Steel, for Anticorrosive Uses”
4nd Hellenic Ceramic Soc. Conference, Athens, Greece (2005)
120. G. Roupakas, G. Kastrinaki, S. Theodoropoulou, M. Kokkoris, D. Papadimitriou, **E.P. Georgiou**, C.N. Panagopoulos
“Characterization of ZnSe Thin Film Growth by EBE on Glass and Chalcopyrite-Semiconductor Substrates”
XXII Hellenic Conference on Solid State Physics & Materials Science, Patra, Greece (2006)
121. C.N. Panagopoulos, **E.P. Georgiou**, Z. Dionysiadis
“The Effect of Grain Size on the Corrosion Behaviour of Zinc”
3rd Hellenic Conference on Metallic Materials, Patra, Greece (2007)
122. C.N. Panagopoulos, **E.P. Georgiou**
“Advanced Research in Technological Materials”
Symposium in: 170 Years of Education and Research in NTUA, Athens, Greece (2008)

Invited Speeches & Training Courses:

123. **E.P. Georgiou, J.-P. Celis**
“Co-Sn coatings and multilayers”
Workshop on “Surface Modification by Electrochemical Methods: Synthesis & Applications of Nanomaterials”, KU Leuven, Belgium (2012)
124. **E.P. Georgiou**
“Corrosion-Wear Resistant Metallic Materials”
Training School on “Protection against Bio-Tribocorrosion in Industry”, Ecole Centrale Paris, France (2013)
125. **E.P. Georgiou, J.-P. Celis**
“Electroplating of Ni-Sn and Co-Sn cermets as coatings and multilayers, high temperature friction and wear behavior of these coatings”
TEMADEP Workshop, Aleksandras Stulginskis University, Lithuania (2013)
126. M. Anderson, D. Drees, **E.P. Georgiou**
“Tackiness of grease measurement”
28th ELGI Annual General Meeting, Training course, Venice, Italy (2016)
127. **E.P. Georgiou, J.-P. Celis**
“Co-Sn and Ni-Sn alloy electrocoatings”
COSE E-MINDS Training Network, National Technical University of Athens, Greece (2016)
128. **E.P. Georgiou, D. Drees, M. Anderson**
“Grease tackiness: effect of testing conditions”
3rd Industrial Lubricants Conference, Training course, Amsterdam, The Netherlands (2016)
129. **E.P. Georgiou, D. Drees**
“Introduction to wear and friction from a materials point of view”
Methods for improving wear resistance, Danish Technological Institute (DTI), Aarhus, Denmark (2019)
130. **E.P. Georgiou, D. Drees**
“The need for efficient wear testing and tribological data generation”
Methods for improving wear resistance, Danish Technological Institute (DTI), Aarhus, Denmark (2019)