
CURRICULUM VITAE of

Apl. Prof. Dr. rer. nat. habil. Emanuel Ionescu

Born 15/09/1975 in Bucharest, Romania

Nationality: German

married, one child

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University Education

1994 – 1998	Studies of Chemistry and Physics in Bucharest, Romania
1998	<i>Diploma Thesis</i> “Synthesis of new complexes with tetra- and hexadentate Schiff’s bases” (Prof. A. Kriza)
1998 – 2000	Post-Graduate Studies in Chemistry in Braunschweig and Bucharest
2000	<i>Magister Thesis</i> “Synthesis of 3-ortho-phenyl substituted 2H-azaphosphirene complexes” (Prof. R. Streubel)
2000 – 2005	Doctoral Studies in Inorganic Chemistry, University Bonn, Germany
2005	<i>PhD Thesis</i> “Studies on synthesis and reactivity of a P-silyl substituted η^1 -E-phosphaalkene complex and of a 2,3-dihydro-1,2,3-azadiphosphete complex” (Prof. R. Streubel)
2015	<i>Habilitation</i> “Ceramic Nanocomposites with Advanced Structural and Functional Properties” (TU Darmstadt, Mentor: Prof. R. Riedel)

Professional Experience

01.2023 – onwards	<i>Deputy Director</i> at Fraunhofer IWKS
11.2021 – onwards	<i>Head of Department</i> “Digitalization of Resources” at Fraunhofer IWKS

03.2024 – onwards	<i>Associate Professor</i> at TU Darmstadt, Institute for Materials Science
01.2023 – onwards	<i>SPARC Visiting Professor</i> at IIT Madras, Department of Metallurgical and Materials Engineering
04.2019 – 10.2021	Heisenberg Fellow at TU Darmstadt, Institute for Materials Science
05.2015 – 02.2024	Privatdozent at TU Darmstadt, Institute for Materials Science
04.2014-09.2015	Deputy Professor for Inorganic Chemistry at University Cologne, Institute for Inorganic Chemistry
01.2007 – 04.2015	Senior Researcher at TU Darmstadt, head of the group "Synthesis and Processing of Ceramics"
2006 – 2007	Post-Doctoral Researcher at TU Darmstadt
2003 – 2005	Research Assistant at University Bonn
2000 – 2003	Research Assistant at TU Braunschweig

Professional Activities

Main Research Fields and Interests

- Materials synthesis: precursor-based syntheses (silicon-containing inorganic polymers, organometallics & element-organic precursors), sol-gel processing, hydro-/solvothermal syntheses, solid-state syntheses, mechano-chemical syntheses etc. – ceramic materials, (nano)composites, hybrid materials.
- Materials for energy-related applications – piezoresistive materials, materials for catalysis, thermally insulating materials, thermoelectric materials
- Nanocomposites (ceramic matrix composites – CMCs; ceramic nano/nano-composites; polymer/ceramic nanocomposites)
- Materials for biomedical and environmental applications; Bioactive materials: glasses, glass ceramics and (nano)composites, bioactive hybrid materials
- Materials for high temperatures and extreme environments (mechanical loading, oxidative/corrosive conditions, thermal insulation); functional materials for applications in harsh conditions
- Circular economy, process modelling, materials recycling concepts, digitalization of processes

Scientific Activities

2002 – onwards	Member of the Gesellschaft Deutscher Chemiker (GDCh)
2010 – onwards	Member of the Deutsche Gesellschaft für Materialkunde eV (DGM)
2010 – onwards	Member of the American Ceramic Society (ACerS)
2019 – onwards	Member of the German Ceramic Society (DKG) and of the European Ceramic Society (ECerS)
2023 – onwards	Chairman of the Focus Group "Ceramics for Environmental Engineering" of the German Ceramic Society (DKG)
2018 – onwards	Secretary of the <i>Rhine Ceramic Chapter Germany</i> of the American Ceramic Society
2019 – onwards	Editor of the <i>Journal of the European Ceramic Society</i>

2020 – onwards	Associate Editor of <i>International Journal of Applied Ceramic Technology</i>
2020 – onwards	Associate Editor for <i>Materials Letters</i>
2020 – onwards	Associate Editor for <i>MDPI Polymers</i>

Awards, Honors and Fellowships

1998 – 1999	Socrates Fellowship (TU Braunschweig)
2009	Young Investigator Award – XIIIth Conference on High Temperature Materials Chemistry, September 2009, Davis (USA)
2011, 2016	Best Poster Prize (ECERS XII, PDC Session, Stockholm, Sweden, June 2011; IWAC07, Limoges, France 2016)
2013	DFG Research Fellowship (University of Washington, Seattle, USA, Prof. R. K. Bordia) (<i>cancelled due to familiar reasons</i>)
2016	Award of the Outstanding Papers and Reviews Published in the <i>Journal of the Ceramic Society of Japan</i> 2015 (<i>J. Cer. Soc. Jpn.</i> 2015 , 123, 106-113)
2019 - 2021	<i>Heisenberg Fellow</i> (German Science Foundation, DFG)
2022	<i>Global Star Award</i> of the American Ceramic Society
2024	<i>Fellow</i> of the American Ceramic Society

Publications and Patents

Peer-Reviewed Journals:	167	<i>h</i> -index (<i>Google Scholar/Scopus</i>)	41/39
Other Journals / Proceedings:	10	Total number of citations (<i>Google Scholar/Scopus</i>)	> 5800 / > 5000
Books / Book Chapters:	1 / 10	Invited Presentations	>100
Patents / Patent Applications	4 (2 pending)	Contributed Conference Presentations (Oral and Poster)	>100