

Curriculum Vitae for Prof. Dr. techn Jan Torgersen

Education

- 05/2010-03/2013: Institute of Materials Science and Technology, Vienna University of Technology, graduated with PhD in Industrial Engineering.
- 2004-2010: Vienna University of Technology, graduated with Dipl.-Ing. in Industrial Engineering

Employment

- 08/2022-present Chair Holder, Chair of Materials Science, Department of Materials Engineering, TUM School of Engineering and Design, Technical University of Munich, Germany
- 08/2022-present Head of the State Materials Testing Facility for Mechanical Engineering, TUM School of Engineering and Design, Technical University of Munich, Germany
- 01/2020-07/2022 Professor, Department of Mechanical and Industrial Engineering, NTNU Trondheim, Norwegian University of Science and Technology, Norway
- 09/2016-12/2019 Associate Professor, Department of Mechanical and Industrial Engineering, NTNU Trondheim, Norwegian University of Science and Technology, Norway
- 07/2016-present Visiting Associate Professor, Department of Mechanical Engineering, Stanford University, USA
- 02/2014-07/2016: Post-doctoral research fellow at Nanoscale Prototyping Laboratory, Stanford University, USA
- 05/2010-12/2013: Project Assistant at the Institute of Material Science and Technology, Vienna University of Technology, Austria

Publications and Citations

J. Torgersen is author of 94 publications in International Journals. H-index: 28, citations: 2700 (Google Scholar) and H-index 24, citations 2087 (scopus) Author ID 55210289500.

Competitive Grant Funding

- From 01/2025 PRECISE: PRedicting wear of thErminally sprayed abradable sprayable CoatIngs for compressor SEals, (400k€, 4 years), Principal Applicant
- From 01/2024 HIGH-CAT High Performance Cathode-Electrolyte Interfaces for Solid Battery, Industry Project, Sponsor Oerlikon, (400k€, 4 years), Principal Applicant
- From 05/2021 ELECTRODE- Exploring the Limits of Mass transport in Electro Chemical Energy Converters ThRough unCOnstrained Design and Interface Engineering, ERC Starting Grant (1.5M€, 5 years), European Research Council, Principal Applicant
- From 05/2021 INCITE- Immune Niches for Cancer ImmunoTherapy Enhancement, Future Emerging Technology (FET) Open Project (4M€, 4 years), European Innovation Council, Participant
- 08/2020- 07/2022 IN-SANE- IN-situ Studies of highly conductive bonded interfaces between Aluminium and copper at the Nano-scaleE (1M€, 3 years), Research Council of Norway, Participant
- 04/2019-03/2021 SERAM- Horizon 2020 Project for Fracture and Fatigue Behavior of Additive Manufactured Components (2M€, 3 years), European Union, Participant
- 09/2018- 11/2022 PhD fellowship in Emerging Nanotechnologies, (400 k€, 4 years), NTNU, Project Leader
- 09/2018-05/2022 FRINATEK for Thin Film Synthesis (900 k€, 3 years), Norwegian Research Council, Project Leader
- 08/2018-05/2021 Topology Optimization of Subsea Manifolds, Aker Solutions AS, 10k€/ year

06/2018-05/2021	PROKAM- Progress Through Knowledge in Additive Manufacturing, DNV-GL AS, 20k€/year, Project Leader
02/2018-01/2020	CARETEAM- Cross Atlantic Excellence in Research and Teaching for next generation Additive Manufacturing, (30k€, 2 years), Center for International Education, Project Leader
03/2016-12/2020	NTNU Grant for the employment of an international chair, (20k€ per year for 5 years), Principal Applicant
11/2016-10/2017	Forsprung 2018, surface engineering for reducing ski friction, financed by Olympiatoppen Norway (1mill€), Participant
03/2016	NTNU Grant for Infrastructure (100k€), Principal Applicant
08/2016-05/2022	Mobile Additive Manufacturing, Fieldmade AS, 10k€/year
07/2016-06/2018:	Additive bio manufacturing: 3D Printing for Medical Recovery and Human Enhancement, (300k€), Participant
02/2014-07/2016:	Novel precursors for Atomic Layer Deposition of high-k thin films, BASF, CO Germany, Samsung CO, South Korea, (1Ml€/year), Participant
02/2014-11/2015:	Nucleation and growth during Atomic Layer Deposition on micro- and nanostructured polymers, FWF Austria, 60k€, Principal Applicant

Selected Journal Editorial Positions

Founder, Scientific Board Member and Organizer of the European Conference on Structural Integrity of Additive Manufactured Materials (ESIAM).

Lectures and Invited Addresses

Invited/Plenary speaker at more than 260 national and international symposia, conferences, and universities.

PhD Supervision and Examination

J. Torgersen supervised 5 PhD students and more than 40 master students.

Industry Consultancy/Collaborations

Panel member for the evaluation of research and professional activity of research-oriented institutes of the Czech Academy of Sciences for the period 2015–2019. Board Member, Fieldmade AS, Lillestrøm, Norway. Editorial board member and founder, Materials Design and Processing Communications, Wiley.

Public Outreach and Engagement

The race to the bottom -- accelerating nano 3D printing (<https://www.youtube.com/watch?v=2V4DwZmQenY>) – TEDxVienna

Selected Publications

[1] “Hydrogels for two-photon polymerization: a toolbox for mimicking the extracellular matrix” **J Torgersen**, XH Qin, Z Li, A Ovsianikov, R Liska, J Stampfl, Advanced Functional Materials 23 (36), 4542-4554. [2] “Photo-sensitive hydrogels for three-dimensional laser microfabrication in the presence of whole organisms” **J Torgersen**, A Ovsianikov, V Mironov, N Pucher, X Qin, Z Li, K Cicha, T Machacek, R Liska, V Jantsch, J Stampfl, Journal of biomedical optics 17 (10), 105008-105008. [3] “Fatigue strength of blunt V-notched specimens produced by selective laser melting of Ti-6Al-4V” N Razavi, P Ferro, F Berto, **J Torgersen**, Theoretical and Applied Fracture Mechanics 97, 376-384 . [4] “. Xu, Y. Kim, J. Park, D. Higgins, S.-J. Shen, P. Schindler, D. Thian, J. Provine, J. Torgersen, T. Graf, T.D. Schladt, M. Orazov, B.H. Liu, T.F. Jaramillo, F.B. Prinz, Extending the limits of Pt/C catalysts with passivation-gas-incorporated atomic layer deposition, Nat Catal 1 624–630. [5] “Comparing physiologically relevant corrosion performances of Mg AZ31 alloy protected by ALD and sputter coated TiO₂” M Peron, AB Afif, A Dadlani, F Berto, **J Torgersen**, Surface and Coatings Technology 395, 125922 . [6] “Relating Electronic and Geometric Structure of Atomic Layer

Deposited BaTiO₃ to its Electrical Properties” **J Torgersen**, S Acharya, A Dadlani, I Petousis, Y Kim, O Trejo, D Nordlund, F Prinz, The Journal of Physical Chemistry Letters 7 (8), 1428-1433