CURRICULUM VITAE November 2024

# I. NAME AND CONTACT INFORMATION:

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#### II. ACADEMIC DEGREES:

1. Degree of Master of Science in Engineering (1995); Tampere University of Technology, Institute of Materials Science; 3Thesis: "Sealing of Chromium Oxide and Zirconia Coatings" (in Finnish)

- 2. Degree of Licentiate of Technology (1998); Tampere University of Technology, Institute of Materials Science; Thesis: "Determination of Surface Energy of Solid Metallic and Ceramic Surfaces at Ambient Conditions" (in English)
- 3. Degree of Doctor of Technology (2002); Tampere University of Technology, Institute of Materials Science; Thesis: "Microstructural Study of Aluminium Phosphate Sealed Plasma Sprayed Alumina and Chromia Coatings" (in English)

# III. OTHER EDUCATION

- Supplemental education for management and leadership: 1. Five-day course KASVU esimiesvalmennus providing further education in the supervisory skills organised by TUT, 2014-15; 2. Three-day course Value Based Selling –Training for TUT Researchers by EDUTECH, TUT, 2014; 3. Tahto 9 lähiesimiesvalmennus within seven days providing education in supervisory duties organised by TUT, 2011 and 4. Three-day course on Project management organised by TUT, 2008/2009.
- Supplemental education organised by Stockholm University, Structural Chemistry in 3 months' course (10p) "Structure analysis with diffraction and electron microscopy" with the grade 'very good' (higher of the two grades), 1999.

# IV. PRESENT EMPLOYMENT POSITION

Professor at Tampere University (2019 onwards): Professorship (Tenured) in Materials Characterization, career stage IV. Research areas include microstructural characterization and NDE (non-destructive evaluation) of various materials (additive manufactured materials, steels, nanomaterials, catalysts, ceramic materials, coatings, tribology/fretting samples) together with activities in material processing, performance and failure analysis. Special expertise on electron microscopy including the administrative and scientific leadership in university-level Tampere Microscopy Center. Responsibilities in Professorship include scientific leadership in materials characterization, teaching and supervision of researchers, funding activity, project management and various administrative duties. Main TAU administrative duty is Vice Dean for Research in the Faculty of Engineering and Natural Sciences (2019-2028) including the membership in TAU Science Council and TAU Infrastructure Steering group.

#### V. PREVIOUS WORK EXPERIENCE AND CAREER BREAKS

- 1. Tampere University of Technology (TUT), Department of Materials Science, Materials Characterization
  - Professor (tenured) (03/2016 12/2018) and Associate professor (tenure track) (06/2013 02/2016); Senior Research Fellow (04/2011 04/2013), Researcher and Senior Researcher (09/1996 03/2011) and Research Assistant and Researcher (May 1994 Dec. 1995)
- 2. Finnish Institute of Occupational Health (Helsinki, Finland), Work Environment Development, Material and Particle Research Group, Senior Researcher (First 18 months as full-time, after that part-time) (01/2007 12/2013)
- 3. Absence from work due to Maternity leave (05/2004 08/2005)
- 4. Stockholm University, Structural Chemistry, Arrhenius Laboratory, Visiting Researcher (01/1999 03/1999)
- 5. Univ. of Illinois at Urbana-Champaign, Frederick Seitz Materials Research Laboratory, Visiting Scholar (03/1996 07/1996)

# VI. RESEARCH FUNDING, LEADERSHIP AND SUPERVISION/CO-SUPERVISION OF THESIS WORKERS

<u>Principal investigator</u> in around fifteen Material characterization projects (funding altogether around 4,5 M€). Main funders Research Council of Finland, Business Finland, EU and Industry partners.

# Supervision/co-supervision of thesis workers:

• Bachelor of Science: 5 graduated; • Master of Science: 20 graduated; • Doctor of Technology, 4 Graduated:, 8 in Supervision/Co-supervision.

# VII. RESEARCH OUTPUT

Publication activity: around 400 publications in total, ~150 scientific peer-reviewed journal articles, more than 40 other scientific articles and around 200 other publications intended for scientific and professional communities. At the moment H-index is 37/42 and around 5000/6700 citations in total, annual citations being around 500/600 (Scopus/Google Scholar November 2024).

#### VIII. TEACHING MERITS

- Responsibility of courses (curriculum work, teaching, evaluation) covering the materials characterization topics at
  Engineering Materials Science/Tampere University: 1. Research Methods in Materials Science (Basic course about the
  research methods used in materials science, Bachelor level, Teaching language Finnish), 2. Electron Microscopy (Course
  for master level, Teaching language English), 3. Non-destructive testing and failure analysis (Course about failure analysis
  and NDT research methods used in materials science, Master level, Teaching language English) and 4. Advances Materials
  Characterization (Course suitable both to Master and Doctoral level, Teaching language English).
- Supplemental education for teaching: Teaching in English' (2,5 day course equalling to 1,5 credit points) organised by University of Tampere (Language Centre), 2010 and Pedagogical qualification of teachers (25 credit points) organised by TUT in collaboration with The School of Vocational Teacher Education (TAOKK) in 2009/2010.
- Head of the Doctoral Program in Engineering Sciences 2017-18 at TUT and 2019-2023 at Tampere University.
- Steering group member at University of Eastern Finland for building new engineering study programs 2022-2025.

#### IX. AWARDS AND HONOURS

- First Class Knight, Order of the White Rose of Finland, SVR R I 2023.
- Member of the Finnish Academy of Technology (2024).

# X. OTHER SELECTED SCIENTIFIC AND ACADEMIC MERITS

- Present University level duties: Member in Tampere Health Consortium Steering group, in TAU PROFI6 Imaging Platform Steering group, in TAU Sähkötalo Research Hub Steering group, in Finnish Atmospheric Science Network Steering group, in Prein Flagship Steering committee and in National Scientific Computing and Data Management Cooperation Forum.
- Member in the Research Committee for Natural Sciences and Engineering in the Research Council of Finland, 2019-2021 and The Finnish Research Infrastructure Committee (FIRI Committee) at the Research Council of Finland (2019-2022)
- Member in Finnish Publication Forum Panel (10-Chemical, materials and environmental engineering) 2025-28.
- Previous University duties: Head of the Doctoral Program in Engineering Sciences 2017-18 at TUT and 2019-2023 at Tampere University including the chairmanship in the doctoral program steering. Head of TAU infrastructure working group 2020-2023 (for developing general principles for infrastructures and infrastructure policy at TAU), Steering group member in TAU PROFI4 Tampere ImmunoExcellence (TIE) – Vaccine and Immunomodulation Platform (2018-2022), Vice Dean for Faculty of Engineering Sciences at Tampere University of Technology (2017-2018).
- Pre-examiner/opponent of PhD thesis and assessing research positions (Chalmers University of Technology, Oulu University, University of Eastern Finland, Danish Technical University, Luleå University of Technology)
- Reviewer of Polish National Research Center applications (2014-2016), Evaluator for EU in Graphene Flagship actions and related Funding calls (2020, 2021, 2022, 2023), Reviewer of German Research Foundation, Latvian Council of Science and Cyprus Research and Innovation Foundation applications (2024).
- Elected and re-elected Board member of SCANDEM Nordic Microscopy Society since 2012
- Main Organiser of ICBM15 15th International Conference on Barkhausen Noise and Micromagnetic Testing held at Tampere on September 2024 (~50 participants from 10 countries), Main Organiser of Scandem 2022 online conference, Annual Meeting of the Nordic Microscopy Society held on June 2022 (~250 participants); Member of Scientific Committee of SCANDEM 2007, HUT/Espoo/Finland; Conference secretary of The 8th Euro Summer School on Electron Crystallography, 2002 Tampere/Finland and Member of Scientific Committee of Surface Modification Technology conference SMT28 Tampere/Finland 2014 and ICBM2022 Conference in Stockholm/Sweden 2022.