

Curriculum Vitae – Prof. Dr. Emiel Hensen

Personal data

Name: Prof. Dr. Emiel J.M. Hensen
Place of birth: Geleen, The Netherlands
Date of birth: February 5, 1971
Address: Eindhoven University of Technology
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Professional Career

2016 – Dean of the Department of Chemical Engineering and Chemistry; TU/e
2016 – present Visiting Professor; Xiamen University; Xiamen, Japan
2016 Visiting Professor; Institute of Catalysis; Hokkaido University, Japan
2009 – present Full Professor of Inorganic Materials Chemistry & Head of laboratory; TU/e
2008 – 2009 Associate Professor; Department of Chemical Engineering and Chemistry; TU/e
2006 – 2008 Part-time researcher; Shell Research and Technology Center Amsterdam
2002 – 2016 Part-time lecturer; Katholieke Universiteit Leuven
2002 – 2007 Assistant Professor; Department of Chemical Engineering and Chemistry; TU/e
2000 – 2001 Assistant Professor; Department of Technical Chemistry; University of Amsterdam

Education

1995 – 2000 PhD; Inorganic Chemistry and Catalysis, Eindhoven University of Technology
1989 – 1994 Bachelor and Master; Chemical Engineering, Eindhoven University of Technology

Scientific Track Record

- Number of publications in peer-reviewed scientific journals: 438
- Total number of citations: ~12,500
- h-index: 60
- Patents: 5
- Books and book chapters: 17

Awards and Personal Grants

- Fellow of the Royal Society of Chemistry (2018)
- Vici Laureate (Personal research grant of the Netherlands Organization for Scientific Research, 2014)
- Top Grant (Excellence research grant of the Netherlands Organization for Scientific Research, 2013)
- Vidi Laureate (Personal research grant of the Netherlands Organization for Scientific Research, 2008)
- Casimir Laureate (Personal grant for the exchange of researchers between academia and industry, 2006)
- Veni Laureate (Personal research grant of the Netherlands Organization for Scientific Research, 2003)

Research Profile

The research of Hensen focuses on the fundamental and applied aspects of catalyzed reactions relevant to clean and sustainable processes for the production of fuels and chemicals with the aim to identify active sites and understand reaction mechanism. The working approach is to apply advanced (in-situ) characterization methods on as realistic as possible model systems combined with theoretical modeling (DFT, microkinetics) and performance testing (kinetics, high-throughput methods, transient techniques) to guide the design and synthesis of nanoscopically organized and chemically functionalized catalytic solid materials. The materials explored include primarily highly structured microporous and mesoporous materials containing reactive centers such as protons, metal ions and metal, metal oxide and metal sulfides clusters. Applications are directed towards the improvement of current industrial chemical processes and novel processes based on renewable feedstock such as biomass. Catalytic target reactions are methane activation, Fischer-Tropsch catalysis, environmental catalysis, zeolite catalysis, conversion of biogenic molecules such as sugars and lignin, metal-support cooperativity in selective oxidation, CO₂ reduction and photocatalysis.