



Prof. Dr. Ir. Eric Jan Mittemeijer

on the occasion of his 65th birthday

Eric Jan Mittemeijer was born in Haarlem (The Netherlands) on February 23rd, 1950. After secondary school he began studying chemical engineering at Delft University of Technology (DUT) in 1967, with an ambition to become a petroleum engineer. Soon he realized that science and in particular physical chemistry were even more fascinating than engineering. He graduated in 1972 at the Department of Metallurgy at DUT. In 1978 he defended his doctoral thesis “Diffraction Studies of Concentration Variations” in the first ever double promotion at DUT. The scientific work in his thesis focuses on X-ray and electron diffraction investigations of interdiffusion in metallic systems. After his promotion Mittemeijer became scientific leader and deputy head of the section Heat Treatment of Metals, and initiated research in thermochemical surface engineering, martensitic and diffusive phase transformations and oxidation of light alloys. Although curiosity driven, his research from this time was greatly inspired by understanding industrially applied materials processing. At the young age of 35, Mittemeijer was appointed full professor in Physical Chemistry of the Solid State. As a professor at DUT, Mittemeijer built up an effective research group where his previous research topics were brought together and directed toward thermodynamics and kinetics of phase transformations in bulk materials and thin films. Apart from X-ray diffraction as a versatile characterization technique, modern facilities for quantitative surface analysis and a National Center for High Resolution Electron Microscopy were also established under his leadership. Methodological research for interpretation and quantification of diffraction, microscopical, spectroscopical and transformation kinetics data were fully integrated with curiosity driven materials research with a potential for application.

In 1998 Mittemeijer was appointed Director at the Max Planck Institute for Metals Research (now Intelligent Systems) in Stuttgart and full professor at the Department of Metals Science at the University of Stuttgart. The research field of the department Mittemeijer is Phase Transforma-

tions in Solid Materials, with an emphasis on cutting-edge experiments and the development of models for phase transformations in bulk and nanomaterials, including thin films. The department excels in the application of X-ray diffraction (XRD) methods and the surface analytical methods Auger and X-ray photoelectron spectroscopy and ellipsometry, as well as calorimetric and dilatometric methods. Computer simulations are an indispensable tool. Throughout his Stuttgart years Mittemeijer has worked on nanomaterials, thermochemical treatment of iron-based alloys, oxidation of metals and the role of stress in phase transformations, to mention just a few.

Mittemeijer has (co-)authored over 700 scientific publications. Among these publications are books on “Diffraction Analysis of the Microstructure of Materials (2004)”, “Fundamentals of Materials Science (2010)”, “Modern Diffraction Techniques (2013)”, “Thermochemical Surface Engineering of Steel (2014)” and “Metal-Induced Crystallization; Fundamentals and Applications (2014)”, exemplifying the diversity of his scientific interests. He has been a frequent organizer and (co-)chairman of conferences. He was editor of many conference proceedings, including most European Powder Diffraction Conferences and ASM Heat Treatment and Surface Engineering Conferences. He is on the editorial boards of several journals, including “International Materials Reviews”, “Journal of Alloys and Compounds” and “Zeitschrift für Kristallographie”; he is Editor-in-Chief of the journal “International Journal of Materials Research” and editor/publisher of the journal “HTM Journal of Heat Treatment and Materials”.

Mittemeijer has received many distinctions and recognitions worldwide for his scientific work; the most important among these are Fellow of ASM (1992), honorary professor at Tianjin University (2006), the IFHTSE medal (2010) and the Werner Köster Prize (2012).

In addition to his passion for scientific research Mittemeijer is a most inspiring and enthusiastic educator. For more than 10 years he has been the Dean and chairman of

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the Board of Examinations for the Study Course Materials Science at the University of Stuttgart. He founded and has for more than 12 years been Speaker of the International Max Planck Research School on Advanced Materials (IMPRS-AM). Perhaps most impressive is the intensive and unremitting supervision of more than 75 PhD students. Only those who have worked closely with him know how much time “Doktorvater Eric” devotes to his students.

Eric Mittemeijer dedicated an important part of his life to materials science; this is facilitated by the strong support from his spouse Marion, who understands, respects and appreciates his drive and vocation. In his spare spare time Mittemeijer plays the grand piano, visits the opera, relaxes by the sea-side and reads historical and biographical works.

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