

ALD 2016 Ireland

Fred Roozeboom

Professor at Eindhoven University of Technology, The Netherlands

Senior Technical Advisor at TNO Eindhoven, The Netherlands

Eindhoven University of Technology, The Netherlands

TNO Eindhoven, The Netherlands



Fred Roozeboom gained his MSc (1976, chemistry, cum laude) from Utrecht University and his PhD (chemical engineering, 1980) at Twente University in The Netherlands, both in catalysis. He continued his career in catalysis with ExxonMobil in Baton Rouge, USA (1980-1982) and Rotterdam (1983).

Next, he joined Philips-Research (since 2006: NXP) in Eindhoven, The Netherlands, to work on MOCVD of III-V semiconductor lasers (1983-1988), IC metallization (1988-1990), soft-magnetic materials for magnetic recording, and “switchable mirror” hydride multilayers (1990-1996). From 1997-2009 he led a team on 3D passives and heterogeneous Si-integration for wireless communication applications, power management and digital signal processing. For this work he received the Bronze Award for ‘NXP Invention of the Year 2007’ and became NXP Research Fellow. In 2007 he became part-time professor at TU Eindhoven. In 2009 he left NXP and joined a team at TNO Eindhoven specializing in spatial ALD. In 2014 he became Fellow of the Electrochemical Society.

Fred is co-/author of 200+ publications (h-index: 31), 5 book chapters, 30 granted US patents, and co-/editor of 35 conference proceedings on semiconductor processing. He has been or is active in organizing committees of several conferences (Materials Research Society, Electrochemical Society) and is a member of the SEMI Europe Semiconductor Technology Programs Committee.

Topics of interest: ultrathin-film technology, plasma processing, spatial ALD, reactive ion etching, 3D passive and heterogeneous integration, RTP, microsystem technology, Li-ion micro-batteries, sensors, displays.