



**Prof. Alexander Michaelis**

Director Fraunhofer Institute for Ceramic Technologies and Systems IKTS, Germany

Prof. Alexander Michaelis studied physics at the University of Düsseldorf in Germany and graduated with a diploma thesis in laser and plasma physics. Subsequently he switched to the field of physical chemistry and received his doctorate in electrochemistry. In 1995 he spent one year as faculty member at the University of North Carolina at Chapel Hill, USA. There, he worked on high temperature superconductors YBCO and Si-based microelectronic systems. In 1996 he accepted a position at Siemens AG working as senior process integration engineer in the field of microelectronics amongst others at the DRAM Development Alliance in East Fishkill, New York. In 2000, he began to work for the corporate research department of Bayer AG in Leverkusen. From there he was delegated to H.C. Starck GmbH, a Bayer subsidiary, where he was head of the Electroceramics and the New Business Development department. Furthermore, he was the managing director of InDEC B.V. working in the field of solid oxide fuel cells. During this time he also finished his state doctorate (habilitation treatise) at University of Düsseldorf.

Since 2004, he is president of the Fraunhofer Institute for Ceramic Technologies and Systems IKTS with more than 600 employees and a yearly budget of over 54 Mio €. Furthermore, he has been holding the chair of Inorganic Nonmetallic Materials at TU (technical university) of Dresden.

He has more than 40 patent families in materials science, microelectronics, and electronics and provided more than 250 publications.

In 2012 Prof. Alexander Michaelis was awarded the ACerS Bridge Building Award for his contribution in the field of energy and environmental technology. In 2014 he received the Fraunhofer Medal for outstanding achievements in the field of applied materials research.

## Awards

**Prof. Dr. A. Michaelis**

04/95	“Best Ph.D Thesis of the Year 1994 Award”: University of Düsseldorf, Germany
12/98	Cronus Award of Siemens AG: Development of worldwide first 256 MB SDRAM Chip, East Fishkill, NY, USA
08/99	„H.J.Engell-Award“ of ISE (International Society of Electrochemistry): <a href="http://www.access.ch/ise/awards/winners98.html">www.access.ch/ise/awards/winners98.html</a>
02/00	„Best IEDM paper Award, DRAM Development Alliance, East Fishkill, NY, USA
01/03	„Best paper – The Per Olof Award“ und “outstanding paper award“ CARTS 2003
2009	Election as member of “World Academy of Ceramics WAC”
2012	ACERS International Bridge Building Award
2014	Fraunhofer Medal for achievements in applied materials research

## Patents

42 patent families in materials science and microelectronics

## Boards and Memberships

- World Academy of Ceramics, WAC
- WAC Forum committee / Price committee
- American Ceramic Society, ACERS / Member of the Board of CGIF (Ceramic Glass Industry Foundation)
- German Ceramic Society (DKG), Member of the board / vice president
- President of Research Society e.V. of DKG (AIF member)
- DGM (German Society of materials science)
- DGM/DKG- joint committee „Advanced Ceramics“  
Head of working unit „functional ceramics“
- DECHEMA-committee „applied inorganic chemistry“
- Head of Fraunhofer alliance „applied ceramics -- advancer“
- AGEF-Society of Electrochemistry e. V.
- DPG-German Society of Physics

- Helmholtz Research Center, Dresden Rossendorf. Member of the board
- Roth & Rau AG, (TecDax company), deputy head of board of directors
- AiF (German Alliance for Research in Industry), board member
- Solarvalley Germany e. V., member of the board
- Silicon Saxony, member of the board
- Advisory board University Zwickau
- Advisory board „Energy Saxony“
- Member of the board MFD e.V. (Materials Research Alliance Dresden)