V2019
VAKUUM & PLASMA

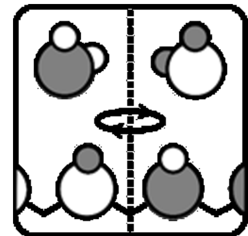
Die V im Zentrum!

8./10. OKTOBER 2019
INTERNAT. CONGRESS CENTER DRESDEN

Workshop

Atomic Layer Deposition ALD

Wednesday, 09.10.2019, 13:30 – 17:30
Thursday, 10.10.2019, 09:00 – 12:30



Scheme Atomic Layer Deposition

Atomic Layer Deposition (ALD) is used to deposit ultraconformal thin films with sub-nm film thickness control. The method is unique in the sense that it employs sequential self-limiting surface reactions for growth in the monolayer thickness regime.
During this workshop specially ALD for optical and medical applications will be addressed beside others.

Organizer:

- *Fraunhofer-Institut für Keramische Technologien und Systeme IKTS, Dresden*
- *Europäische Forschungsgesellschaft Dünne Schichten e.V. (EFDS), Dresden*

Program Committee:

- *Dr. Jonas Sundqvist, Fraunhofer-Institut für Keramische Technologien und Systeme IKTS, Dresden, Germany*

Workshop-Sponsors:

Picosun Oy
www.picosun.com

plasway Technologies GmbH
www.plasway-technologies.de

Program, Wednesday, 09.10.2019

Lecture

Wednesday, October 9, 2019, 13:30 – 15:00

"45 years of ALD"
Dr. Tuomo Suntola, Picosun Oy, Espoo Finland
Millenium Technology Prize 2018

"Current and Emerging ALD Processes, Precursors and Applications in High Volume Production"
Dr. Jonas Sundqvist
Fraunhofer IKTS, Dresden, Germany

Changes can occur!

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16:00 – 16:30 | WS5 – V01
"Development of Optical Thin Film Coatings by Plasma Enhanced Atomic Layer Deposition"
Adriana Szeghalmi, Fraunhofer-Institut für Angewandte Optik und Feinmechanik IOF, Jena, Germany

16:30 – 17:00 | WS5 – V02
"Multi-layer Stacked ALD Coating for Hermetic Encapsulation of Implantable Biomedical Micro-devices"
Christoph Hossbach, Picosun group, Espoo, Finnland

17:00 – 17:30 | WS5 – V03
"Fast plasma ALD employing de Laval Nozzles for high velocity precursor injection"
Abhishekkumar Thakur, Plasway-Technologies GmbH, Dresden, Germany

Program, Thursday, 10.10.2019

9:00 – 9:30 | WS5 – V04
„Advances in quantitative characterization of thin films with help of AFM-based methods“
Malgorzata Kopycinska-Müller, Fraunhofer-Institut für Keramische Technologien und Systeme IKTS, Dresden, Germany

9:30 – 10:00 | WS5 – V05
„In situ metrology for Atomic Layer Deposition processes“
Martin Knaut, Technische Universität Dresden, IHM, Dresden, Germany

10:00 – 10:30 | WS5 – V06
„Conformality in Atomic Layer Deposition“
Véronique Cremers, Plasma Electronic GmbH, Neuenburg, Germany

10:30 – 11:00 Coffee Break in the Exhibition

11:00 – 11:30 | WS5 – V07
„Oxides for Electronics“
Mari Napari, Department of Materials Science and Metallurgy, University of Cambridge, Cambridge, UK

11:30 – 12:00 | WS5 – V08
"Atomic Layer Deposition of Indium Nitride using Hexacoordinated In–N Bonded Precursors and NH3 Plasma"
Nathan O´Brian, Linköping University, Linköping, Sweden

12:00 – 12:30 | WS5 – V09
"Doping hafnium oxide by in-situ precursor mixing"
Wenke Weinreich, Fraunhofer-Institut für Photonische Mikrosysteme IPMS CNT, Dresden, Germany

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