

Tutorial 2

Plasma- assisted atomic level processing- PEALD & ALE

Sunday, September 16th, 2018
9:00 – 17:30, Room Dreitorspitze

The focus will be on atomic level processing technologies, such as Plasma Enhanced Atomic Layer Deposition (PEALD) and Atomic Layer Etching (ALE). The tutorial will provide the basics of the processes, but also insights into the fundamentals of processes, as well as an overview of the processing equipment and applications of these leading edge technologies.

The tutorial is organized by Adriana Creatore, TU Eindhoven, Netherlands, in cooperation with Jonas Sundqvist, Fraunhofer IKTS, Dresden, Germany.

9:00 Introduction

Adriana Creatore, Eindhoven University of Technology, the Netherlands
Jonas Sundqvist, Fraunhofer Institute for Ceramic Technologies and Systems IKTS, Germany

9:30 “Overview of thin film deposition and nanofabrication by atomic layer deposition”

Adrie Mackus, Department of Applied Physics, Eindhoven University of Technology, the Netherlands

11:00 Break

11:30 “Plasma atomic layer deposition: basics, mechanisms and applications”

Harm Knoops, Oxford Instruments Plasma Technology, United Kingdom and Department of Applied Physics, Eindhoven University of Technology, the Netherlands

13:00 Lunch break

14:00 “Principles, basics and practical examples of Plasma Atomic Layer Etching”

Sabbir Khan, Department of Physics, Lund University, Sweden

15:30 Break

16:00 “Plasma-ALD and ALE processes in high volume manufacturing and emerging applications”

Jonas Sundqvist, Fraunhofer Institute for Ceramic Technologies and Systems IKTS, Germany

17:30 End of the tutorial