

NILindustrialday 2014

Workshop 2

Material requirements

Thursday March 13

15:45 – 17:15, Saal A

Presenter	Organisation	Title
Helmut Schiff	Paul Scherer Institut	Workshop Introduction
Olivier Lorret	Profactor	POSS - versatile Materials for NIL
Robert Fader	Fraunhofer - IISB	Soft lithography with organic resists
Christophe Peroz	aBeam Technology and LBNL	
Manuel Thesen	micro resist technology	NIL Resists – Challenges facing the diversity of technological approaches
Dieter Nees	Joanneum Research	



short abstracts

Helmut Schiff

Many Materials are available for working stamps and imprint. What is on the market and what are the industrial requirements? Materials of the future?

Olivier Lorret

POSS properties are easily tunable by molecular design making them materials of choice for NIL: They can be used like hydrophobic resists for BCP self-assembly, Ionic stamps for nano-contact printing, etch mask ...

Robert Fader

Epoxy based UV polymers as resist materials for the soft lithography method "UV-enhanced Substrate Conformal Imprint Lithography" (UV-SCIL) results will be presented. These polymers enable imprint processes for UV-SCIL with a high throughput for photonic or micro optical applications. The focus of this work will be the interaction between the stamp material and the resist and analysis of the working stamp life time will be shown.