



[IST-1-506653-CA]

EUROSIO "Who is Who" Guide

Name of the organisation

<i>Organization Legal name:</i>	AMO GmbH (Gesellschaft für angewandte Mikro- und Optoelektronik mbH)
<i>Organization short name:</i>	AMO
<i>Internet homepage:</i>	www.amo.de

Contact person

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Other Senior Researchers: (up to 10 names, please include e-mail address)

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Dr. Thorsten Wahlbrink, wahlbrink@amo.de

Dipl.-Ing. Thomas Mollenhauer, mollenhauer@amo.de

Experience and expertise fields: (50 words)

The largest research group of AMO is dedicated to CMOS research activities. A number of funded research projects have been carried out from new transistor concepts for end of roadmap scaling to new materials like high k gate dielectrics, metal gates and silicides. Highlights include Tri-Gate MOSFETs with 12nm gate length, novel high-k and metal gate transistors, nano-dot memory devices and integrated circuits for system on chip bio-electronics.

Facilities and Equipment:

The Semiconductor Technology research is hosted in modern clean room facilities of over 350 m² with 6" CMOS compatible equipment. A flexible SOI CMOS process platform can be fine tuned for a variety of research and development applications. Photonic devices like wave-guides and ring-resonators in SOI technology complement the technology portfolio of AMO. Electron-Beam lithography down to sub 10 nm features is the chosen method for direct writing and master fabrication for Nanoimprint, which itself is a promising low-cost replication technology for arbitrary structures at the e-beam resolution limit.



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Three last international research projects:

SINANO (Network of Excellence on Silicon –based Nanodevices)

ePIXnet (Network of Excellence on Photonic Integrated Components and Circuits)

PHOENIX (Integrated Project on Photonic engineering of nonlinear-optical properties of hybrid materials for efficient ultrafast optical switching)