

Exhibition: 4–6 April 2006 • Conference: 3–7 April 2006 Palais de la Musique et des Congrès, Strasbourg, France



Driving the future of European optics and photonics commercialisation.

SPIE Europe



Exhibition: 4–6 April 2006 Conferences: 3–7 April 2006 Palais de la Musique et des Congrès, Strasbourg, France

Driving the future of European optics and photonics commercialisation.

Sponsored and managed by



Cosponsored by



L Conseil General du-bas-Rhin



Communauté Urbaine de Strasbourg



ac chaobeang

Région Alsace



Alsace Development

Agency

Alsace Development Agency Promotional Partners **III-Vs Review** ECOC-European Conference and **Exhibition on Optical Communication Electro Optics** Image Analysis & Stereology Laser + Photonik Laser Focus World Laser Technik Journal Military & Aerospace Electronics Nanotechnology in Northern Europe **Opto and Laser Europe** OptoIndex Photonics Cluster IPOT **Photonics Online Photonics Spectra** Photonik Photonique Photonex The European Physical Journal-**Applied Physics** Vision

Cooperating Organisations



COST is supported by the EU Framework Programme

ESF provides and manages the scientific and technical secretariat for COST





European Optical Society



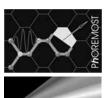






`@LLA





Photonics Cluster (UK





Società Italiana di Ottica e Fotonica

Contents

Exhibitor Listing 2
Arp and Contades Halls Floorplans 3
Palais de la Musique et des Congrès Floorplan 4
Special Events 5
Industry Programme6-7
Student Events/Innovation Village8-9
General Information10-11
Exhibitor Directory 12-30
SPIE Corporate Membership32-33
Product Category List34-36

Exhibition Hours

B1

18

	is de la Musique et des Co ace d'Arp and Contades	ongrés
Tue	sday	10.00 to 17.00
Wed	dnesday	10.00 to 17.00
Thu	rsday	10.00 to 16.00

SPIE Europe

Building a Better World with Light SPIE—The International Society for Optical Engineering is dedicated to advancing scientific research and engineering applications of optical, photonic, imaging, and optoelectronic technologies through its meetings, education programmes, and publications.

Exhibitor Stand Listing

III Vs Review - Elsevier	#1604
A.R.T. Photonics GmbH	#1004
AFOP - French Optics and	l
Photonics Manufacturers	S
Association AHF analysentechnik AG	#1300 #608
Alsace International	#008
ATI Optique	#316
Avantes BV	#302
Ayase Europe GmbH	#704
Becker & Hickl GmbH	#206
BFI Optilas International	#400
Boehringer Ingelheim MicroParts GmbH	#700
Breault Research	
Organization	#1007
Calcarb Ltd.	#107
Carl Hanser Verlag CEDRAT Technologies	#803 #416
CeramOptec GmbH	#410
Chroma Technology Corp	#308
Communauté Urbaine de	
Strasbourg	1410
Conseil General du Bas-Rhin	#1406
Cristal Laser SA	#1211
CVI Technical Optics Ltd.	#706
Davin Optronics Ltd.	#504
Dow Corning Corp	#109
ECOC 2006	#113
Edinburgh Instruments Ltc	
EDP Sciences	#1001
EKSPLA Ltd.	#211
Electro Optics Magazine	#412
Electron Tuboo	
Electron Tubes	#410 #FPIV3
EPIXNET	#EPIV3
EPIXNET Epner Technology, Inc.	#EPIV3 #1006
EPIXNET Epner Technology, Inc. European Network of Exce in Micro-Optics	#EPIV3 #1006
EPIXNET Epner Technology, Inc. European Network of Exce in Micro-Optics European Optical Society	#EPIV3 #1006 ellence #EPIV1
EPIXNET Epner Technology, Inc. European Network of Exce in Micro-Optics	#EPIV3 #1006 ellence
EPIXNET Epner Technology, Inc. European Network of Exce in Micro-Optics European Optical Society (EOS)	#EPIV3 #1006 ellence #EPIV1 #409
EPIXNET Epner Technology, Inc. European Network of Exce in Micro-Optics European Optical Society (EOS) Fischer Connectors Sarl	#EPIV3 #1006 ellence #EPIV1 #409 #1111
EPIXNET Epner Technology, Inc. European Network of Exce in Micro-Optics European Optical Society (EOS) Fischer Connectors Sarl Flexible Optical BV FLIR Systems Ltd. Fogale Nanotech	#EPIV3 #1006 ellence #EPIV1 #409 #1111 #210 #515 #1205
EPIXNET Epner Technology, Inc. European Network of Exce in Micro-Optics European Optical Society (EOS) Fischer Connectors Sarl Flexible Optical BV FLIR Systems Ltd. Fogale Nanotech FRAMOS Electronic Vertrie	#EPIV3 #1006 ellence #EPIV1 #409 #1111 #210 #515 #1205 ebs
EPIXNET Epner Technology, Inc. European Network of Exce in Micro-Optics European Optical Society (EOS) Fischer Connectors Sarl Flexible Optical BV FLIR Systems Ltd. Fogale Nanotech	#EPIV3 #1006 ellence #EPIV1 #409 #1111 #210 #515 #1205 ebs #1200
EPIXNET Epner Technology, Inc. European Network of Exce in Micro-Optics European Optical Society (EOS) Fischer Connectors Sarl Flexible Optical BV FLIR Systems Ltd. Fogale Nanotech FRAMOS Electronic Vertrie GmbH	#EPIV3 #1006 ellence #EPIV1 #409 #1111 #210 #515 #1205 ebs #1200 #122
EPIXNET Epner Technology, Inc. European Network of Exce in Micro-Optics European Optical Society (EOS) Fischer Connectors Sarl Flexible Optical BV FLIR Systems Ltd. Fogale Nanotech FRAMOS Electronic Vertrie GmbH Fujian CASTECH Crystals, Inc. Gilden Photonics Ltd	#EPIV3 #1006 ellence #EPIV1 #409 #1111 #210 #515 #1205 ebs #1200 #122 #901
EPIXNET Epner Technology, Inc. European Network of Exce in Micro-Optics European Optical Society (EOS) Fischer Connectors Sarl Flexible Optical BV FLIR Systems Ltd. Fogale Nanotech FRAMOS Electronic Vertrie GmbH Fujian CASTECH Crystals, Inc. Gilden Photonics Ltd GWU-Lasertechnik GmbH	#EPIV3 #1006 ellence #EPIV1 #409 #1111 #210 #515 #1205 ebs #1200 #122 #901
EPIXNET Epner Technology, Inc. European Network of Exce in Micro-Optics European Optical Society (EOS) Fischer Connectors Sarl Flexible Optical BV FLIR Systems Ltd. Fogale Nanotech FRAMOS Electronic Vertrie GmbH Fujian CASTECH Crystals, Inc. Gilden Photonics Ltd	#EPIV3 #1006 ellence #EPIV1 #409 #1111 #210 #515 #1205 ebs #1200 #122 #901
EPIXNET Epner Technology, Inc. European Network of Exce in Micro-Optics European Optical Society (EOS) Fischer Connectors Sarl Flexible Optical BV FLIR Systems Ltd. Fogale Nanotech FRAMOS Electronic Vertrie GmbH Fujian CASTECH Crystals, Inc. Gilden Photonics Ltd GWU-Lasertechnik GmbH Hamamatsu Photonics	#EPIV3 #1006 ellence #EPIV1 #409 #1111 #210 #515 #1205 ebs #1200 #122 #901 #122
EPIXNET Epner Technology, Inc. European Network of Exce in Micro-Optics European Optical Society (EOS) Fischer Connectors Sarl Flexible Optical BV FLIR Systems Ltd. Fogale Nanotech FRAMOS Electronic Vertrie GmbH Fujian CASTECH Crystals, Inc. Gilden Photonics Ltd GWU-Lasertechnik GmbH Hamamatsu Photonics France HC Photonics Corp. HGH Systèmes	#EPIV3 #1006 ellence #EPIV1 #409 #1111 #210 #515 #1205 ebs #1200 #122 #901 #122 #901 #122 #413 #122
EPIXNET Epner Technology, Inc. European Network of Exce in Micro-Optics European Optical Society (EOS) Fischer Connectors Sarl Flexible Optical BV FLIR Systems Ltd. Fogale Nanotech FRAMOS Electronic Vertrie GmbH Fujian CASTECH Crystals, Inc. Gilden Photonics Ltd GWU-Lasertechnik GmbH Hamamatsu Photonics France HC Photonics Corp.	#EPIV3 #1006 ellence #EPIV1 #409 #1111 #210 #515 #1205 ebs #1200 #122 #901 #122 #901 #122 #413
EPIXNET Epner Technology, Inc. European Network of Exce in Micro-Optics European Optical Society (EOS) Fischer Connectors Sarl Flexible Optical BV FLIR Systems Ltd. Fogale Nanotech FRAMOS Electronic Vertrie GmbH Fujian CASTECH Crystals, Inc. Gilden Photonics Ltd GWU-Lasertechnik GmbH Hamamatsu Photonics France HC Photonics Corp. HGH Systèmes Infrarouges HTDS—Hi-Tech Detection Systems	#EPIV3 #1006 ellence #EPIV1 #409 #1111 #210 #515 #1205 ebs #1200 #122 #901 #122 #413 #122 #413 #122 #1304 #1103
EPIXNET Epner Technology, Inc. European Network of Exce in Micro-Optics European Optical Society (EOS) Fischer Connectors Sarl Flexible Optical BV FLIR Systems Ltd. Fogale Nanotech FRAMOS Electronic Vertrie GmbH Fujian CASTECH Crystals, Inc. Gilden Photonics Ltd GWU-Lasertechnik GmbH Hamamatsu Photonics France HC Photonics Corp. HGH Systèmes Infrarouges HTDS—Hi-Tech Detection Systems Horiba Jobin Yvon SAS	#EPIV3 #1006 ellence #EPIV1 #409 #1111 #210 #515 #1205 ebs #1200 #122 #901 #122 #413 #122 #1304 #1103 #1208
EPIXNET Epner Technology, Inc. European Network of Exce in Micro-Optics European Optical Society (EOS) Fischer Connectors Sarl Flexible Optical BV FLIR Systems Ltd. Fogale Nanotech FRAMOS Electronic Vertrie GmbH Fujian CASTECH Crystals, Inc. Gilden Photonics Ltd GWU-Lasertechnik GmbH Hamamatsu Photonics France HC Photonics Corp. HGH Systèmes Infrarouges HTDS—Hi-Tech Detection Systems Horiba Jobin Yvon SAS id Quantique SA	#EPIV3 #1006 ellence #EPIV1 #409 #1111 #210 #515 #1205 ebs #1200 #122 #901 #122 #413 #122 #413 #122 #1304 #1103
EPIXNET Epner Technology, Inc. European Network of Exce in Micro-Optics European Optical Society (EOS) Fischer Connectors Sarl Flexible Optical BV FLIR Systems Ltd. Fogale Nanotech FRAMOS Electronic Vertrie GmbH Fujian CASTECH Crystals, Inc. Gilden Photonics Ltd GWU-Lasertechnik GmbH Hamamatsu Photonics France HC Photonics Corp. HGH Systèmes Infrarouges HTDS—Hi-Tech Detection Systems Horiba Jobin Yvon SAS id Quantique SA Image Analysis &	#EPIV3 #1006 ellence #EPIV1 #409 #1111 #210 #515 #1205 ebs #1200 #122 #901 #122 #413 #122 #413 #122 #1304 #1103 #1208 #206
EPIXNET Epner Technology, Inc. European Network of Exce in Micro-Optics European Optical Society (EOS) Fischer Connectors Sarl Flexible Optical BV FLIR Systems Ltd. Fogale Nanotech FRAMOS Electronic Vertrie GmbH Fujian CASTECH Crystals, Inc. Gilden Photonics Ltd GWU-Lasertechnik GmbH Hamamatsu Photonics France HC Photonics Corp. HGH Systèmes Infrarouges HTDS—Hi-Tech Detection Systems Horiba Jobin Yvon SAS id Quantique SA Image Analysis & Stereology	#EPIV3 #1006 ellence #EPIV1 #409 #1111 #210 #515 #1205 ebs #1200 #122 #901 #122 #413 #122 #1304 #1103 #1208
EPIXNET Epner Technology, Inc. European Network of Exce in Micro-Optics European Optical Society (EOS) Fischer Connectors Sarl Flexible Optical BV FLIR Systems Ltd. Fogale Nanotech FRAMOS Electronic Vertrie GmbH Fujian CASTECH Crystals, Inc. Gilden Photonics Ltd GWU-Lasertechnik GmbH Hamamatsu Photonics France HC Photonics Corp. HGH Systèmes Infrarouges HTDS—Hi-Tech Detection Systems Horiba Jobin Yvon SAS id Quantique SA Image Analysis &	#EPIV3 #1006 ellence #EPIV1 #409 #1111 #210 #515 #1205 ebs #1200 #122 #901 #122 #413 #122 #1304 #1103 #1208 #206 #1600
EPIXNET Epner Technology, Inc. European Network of Exce in Micro-Optics European Optical Society (EOS) Fischer Connectors Sarl Flexible Optical BV FLIR Systems Ltd. Fogale Nanotech FRAMOS Electronic Vertrie GmbH Fujian CASTECH Crystals, Inc. Gilden Photonics Ltd GWU-Lasertechnik GmbH Hamamatsu Photonics France HC Photonics Corp. HGH Systèmes Infrarouges HTDS—Hi-Tech Detection Systems Horiba Jobin Yvon SAS id Quantique SA Image Analysis & Stereology Imagine Optic	#EPIV3 #1006 ellence #EPIV1 #409 #1111 #210 #515 #1205 #1200 #122 #901 #122 #413 #122 #413 #122 #1304 #1103 #1208 #206 #1600 #1209 #305
EPIXNET Epner Technology, Inc. European Network of Exce in Micro-Optics European Optical Society (EOS) Fischer Connectors Sarl Flexible Optical BV FLIR Systems Ltd. Fogale Nanotech FRAMOS Electronic Vertrie GmbH Fujian CASTECH Crystals, Inc. Gilden Photonics Ltd GWU-Lasertechnik GmbH Hamamatsu Photonics France HC Photonics Corp. HGH Systèmes Infrarouges HTDS—Hi-Tech Detection Systems Horiba Jobin Yvon SAS id Quantique SA Image Analysis & Stereology Imagine Optic Keopsys	#EPIV3 #1006 ellence #EPIV1 #409 #1111 #210 #515 #1205 #1200 #122 #901 #122 #413 #122 #413 #122 #1304 #1103 #1208 #206 #1600 #1209 #305
EPIXNET Epner Technology, Inc. European Network of Exce in Micro-Optics European Optical Society (EOS) Fischer Connectors Sarl Flexible Optical BV FLIR Systems Ltd. Fogale Nanotech FRAMOS Electronic Vertrie GmbH Fujian CASTECH Crystals, Inc. Gilden Photonics Ltd GWU-Lasertechnik GmbH Hamamatsu Photonics France HC Photonics Corp. HGH Systèmes Infrarouges HTDS—Hi-Tech Detection Systems Horiba Jobin Yvon SAS id Quantique SA Image Analysis & Stereology Imagine Optic Keopsys Laser Components GmbH Laser Focus World LEDIL	#EPIV3 #1006 ellence #EPIV1 #409 #1111 #210 #515 #1205 #1200 #122 #901 #122 #413 #122 #413 #122 #1304 #1103 #1208 #206 #1600 #1209 #305 #314 #209 #212
EPIXNET Epner Technology, Inc. European Network of Exce in Micro-Optics European Optical Society (EOS) Fischer Connectors Sarl Flexible Optical BV FLIR Systems Ltd. Fogale Nanotech FRAMOS Electronic Vertrie GmbH Fujian CASTECH Crystals, Inc. Gilden Photonics Ltd GWU-Lasertechnik GmbH Hamamatsu Photonics France HC Photonics Corp. HGH Systèmes Infrarouges HTDS—Hi-Tech Detection Systems Horiba Jobin Yvon SAS id Quantique SA Image Analysis & Stereology Imagine Optic Keopsys Laser Components GmbH Laser Focus World LEDIL Leoni Fiber Optics GmbH	#EPIV3 #1006 ellence #EPIV1 #409 #1111 #210 #515 #1205 #1200 #122 #901 #122 #413 #122 #413 #122 #1304 #1103 #1208 #206 #1600 #1209 #305 #314 #209 #314
EPIXNET Epner Technology, Inc. European Network of Exce in Micro-Optics European Optical Society (EOS) Fischer Connectors Sarl Flexible Optical BV FLIR Systems Ltd. Fogale Nanotech FRAMOS Electronic Vertrie GmbH Fujian CASTECH Crystals, Inc. Gilden Photonics Ltd GWU-Lasertechnik GmbH Hamamatsu Photonics France HC Photonics Corp. HGH Systèmes Infrarouges HTDS—Hi-Tech Detection Systems Horiba Jobin Yvon SAS id Quantique SA Image Analysis & Stereology Imagine Optic Keopsys Laser Components GmbH Laser Focus World LEDIL	#EPIV3 #1006 ellence #EPIV1 #409 #1111 #210 #515 #1205 #1200 #122 #901 #122 #413 #122 #413 #122 #1304 #1103 #1208 #206 #1600 #1209 #305 #314 #209 #314

Light Tec	#1210
LightConversion	#211
LightTrans GmbH	#311
U U	
LINOS Photonics France	#303
LOT-Oriel	#1002
Lumera Laser GmbH	#510
Lyncée Tec SA	#115
M.C.S.E.	#1302
Melles Griot Industrie	#702
Miass Machinebuilding Pla	ant #909
MICOS GmbH	#1100
Microcertec	#1308
Multiwave Photonics	#904
Nalux Co., Ltd.	#906
Nanotechnology in Northe	ern
Europe Congress &	
Exhibition	#1602
Nature Publishing Group	#1102
Newport Spectra-Physics	#300
Nozomi Photonics	#402
	#304
NP Photonics	
NT MDT Co.	#1005
Nuvonyx Europe SA	#815
Ocean Optics B.V.	#500
OFS Fitel Specialty	
Photonics Div.	#316
OLLA Project	
•	#EPIV2
Omega Optical, Inc.	#201
OPERA-2015	#807
OpTIC Technium	#506
OpticsPages	#111
Optima Research Ltd.	#1201
Opto & Laser Europe	#310
Opton Laser International	#1303
Optronis GmbH	#301
OWIS GmbH	#508
OZ Optics Ltd.	#312
PCO AG	#514
PhoeniX Software	#1106
PHOREMOST	#EPIV4
Photon Design	#1003
	#1000
Photonic Cleaning	#000
Technologies	#902
Photonics Cluster (UK)	#405
Photonics Spectra /	
EuroPhotonics	#509
Photonis-DEP	#512
Physik Instrumente (PI)	
GmbH & Co.	#404
Piezosystem Jena, Inc.	#508
-	
Polymicro Technologies Ll	
Pyser-SGI Ltd.	#407
Quantel	#507
Raicol Crystals Ltd.	#502
Resolve Optics Ltd.	#401
•	
Rhenaphotonics Alsace	#1412
RSoft Design Group	#516
SAES Getters S.p.A.	#124
Sanko Gosei Ltd.	#908
Santec Europe Ltd.	#910
•	
SEDI Fibres Optiques	#316
Shimadzu France	#313
Sill Optics GmbH & Co., K	G #317
SIOF-Italian Society of Op	
and Photonics	#411
SIOS Messtechnik GmbH	
	#600
	#508
Specim Spectral Imaging	
Ltd.	#903

SPIE Europe would like to thank the following sponsors for their generous support of Photonics Europe 2006

Exhibitor Reception



Stand #412 www.europascience.com

Tuesday Coffee Breaks

Stand #413 www.hamamatsu.fr

Lanyards



www.photond.com

Registration Inserts **RSOFT** ^{0 s i g n g r o n p Stand #516 www.rsoftdesign.com}

Attendee Pens

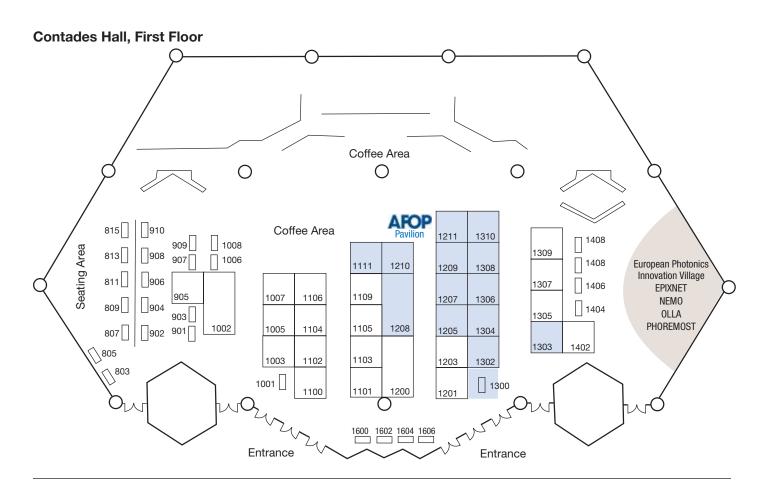
wicked (asers

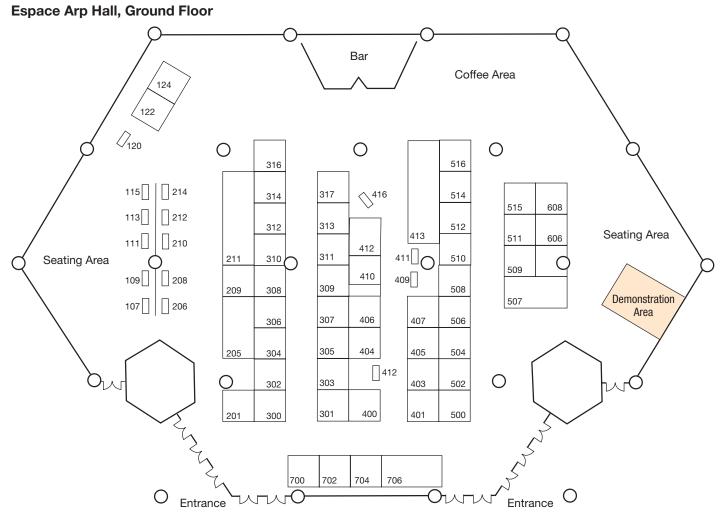
Stand #1109 www.wickedlasers.com

General Refreshments GILDEN plotonics Stand #901 www.gildenphotonics.com

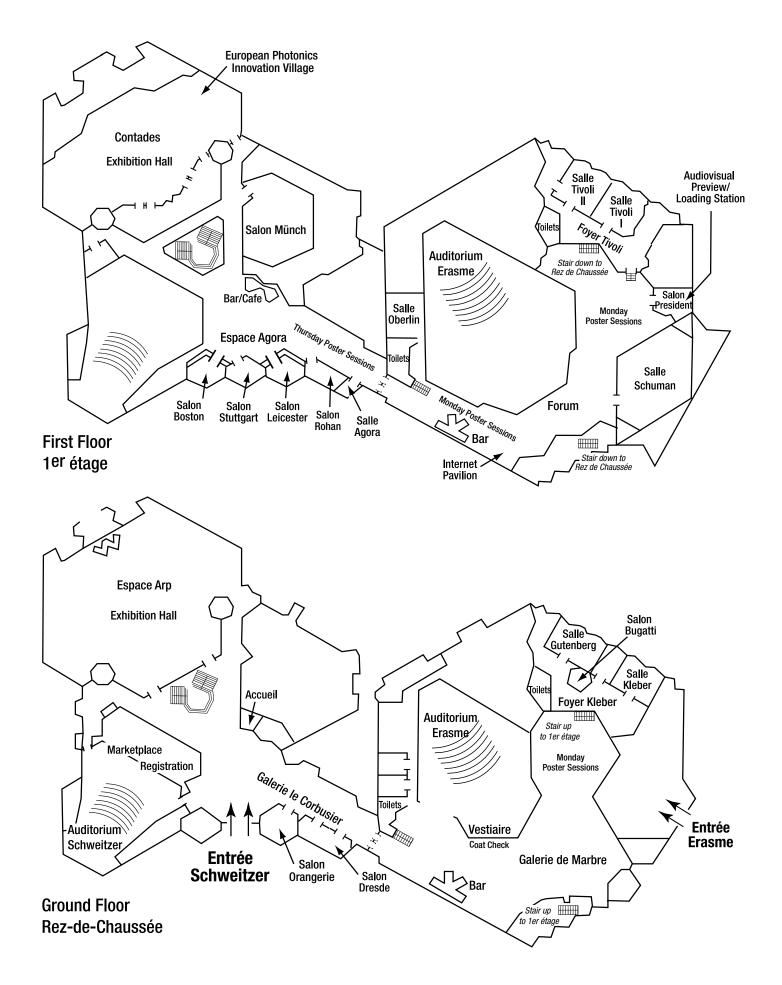
> Stand #903 www.specim.fi

spieworks.com	#907	TRANSLUX	#1207
Spiricon, Inc.	#406	Trioptics France	#508
Taylor & Francis	#606	ULIS	#1302
Taylor Hobson	#1306	ViALUX GmbH	#205
Texas Instruments DLP		Vision 2006	#805
Products	#205	Vision Systems Design	#209
Thales Laser SA	#1008	Wicked Lasers	#1109
Thermoteknix Systems Ltd.	#1309	Wiley-VCH GmbH & Co. KGaA	#1207
TOPAG Lasertechnik		Wordingham Technologies	s #403
GmbH	#1101	Xiton Photonics GmbH	#122
TopGaN	#1104		





Palais de la Musique et des Congrès



Women in Optics Presentation and Reception

Open to all symposium attendees. Please register at the onsite registration desk for this event. Attendance is free.

Room: Rohan

17.30 Networking Reception



18.00 to 19.00

Join SPIE Fellow **Prof Maria Yzuel** as she discusses her work and career in optics. Yzuel is a member of the Royal Academy of Sciences and Arts of Barcelona, and a former member of the board of Directors of SPIE.





19.00 to 19.30

"Ambition without future", Elke van den Brandt, NEMO This talk presents the preliminary results of an international comparative study addressing the issue: why do women leave their research career? A very lively, entertaining and sometimes funny talk about the situation of Women in Optics in Europe.

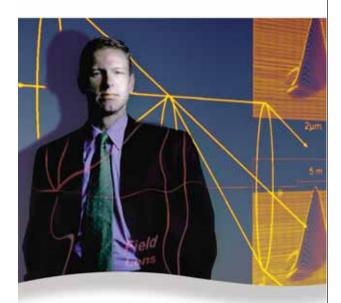
Real-time events. Real-world innovation.

Don't miss these collocated meetings!

11-15 September 2006 Stockholm, Sweden



OPTICS/PHOTONICS in SECURITY DEFENCE An SPIE Europe Event



SPIE Europe

Exhibition

spie.org/events/europe

conferences

Courses

New!

Industry Programme at Photonics Europe

SPIE Europe recognizes the unique high tech R&D and business environment that exists in Europe today and the critical need to drive commercialization. The Photonics Europe symposium addresses this unique atmosphere and is specially designed to provide attendees with content that bridges research and industry and which can be directly applied to real-world problems. This content is provided to you throughout this Symposium in several ways:

- through research papers presented in the conference programme
- through industry content provided throughout the week in a new Photonics Industry Programme
- through business interaction with leading optics and photonics companies in the exhibition,
- through courses and workshops for professional development
- through networking at special events.

If you are not planning on attending the full technical conference ("Symposium Registration" choice on the registration form) programme with associated presentations on scientific discoveries and technology achievements, but prefer a focus on industry, we invite you to register for this special "virtual" Photonics Europe Industry Programme. This Industry Programme is also included in the full Symposium Registration fee.

The €210 registration for the entire Industry Programme provides you with access to these exciting forums and conferences throughout the week at Photonics Europe. See SPIE Cashier to register for the Industry Programme. Please note, if you are registering for the technical Symposium, the Industry Programme is included with your fees.

OPERA Forum on FP-7 and the Photonics²¹ Technology Platform

The OPERA forum is free to and open to everyone; a Symposium badge, Industry Programme, or Exhibition-Only badge is required for admission.



Salle Rohan

Many key Europeans from academia, research labs, SMEs and major industries have collaborated to write a strategic vision document for photonics in FP-7: Photonics for the 21st Century. This vision paper is the foundation for a Photonics Technology Platform.

Now, at Photonics Europe 2006, we invite the entire European Photonics Community to learn the results of the latest developments in this area and to provide further input to the Technology Platform. Topics that are being considered for the Platform include:

- Communications and Information
- · Display and Lighting
- Laser-assisted Manufacturing and Machine Vision
- · Life Sciences and Health
- · Metrology and Sensors

6

- Design and Manufacturing of Components and Systems
- Education, Research and Training in Photonics

Presentations that represent a vision for the next decade of developments in photonics will be given by a group of distinguished speakers who have been invited for this occasion.

The main objective of OPERA 2015 is to provide support for the Photonics Technology Platform and its actions.

Technical Programme Committee: Kevin Donnelly, Enterprise Ireland, Dublin, Ireland; Eva Garcia, IdeTra SA, Madrid, Spain; Tom Glynn, National Centre for Laser Applications, Galway, Ireland; James O'Gorman, Eblana Photonics Ltd., Dublin, Ireland; Thomas P. Pearsall, EPIC, Paris, France; Jorge Julián Sanchez, SDG-TECEN, Madrid, Spain; Juan Luis Vadillo, Aragón Photonics Labs S.L., Zaragoza, Invited Speakers:

- 13.30 Introduction, Thomas P. Pearsall, EPIC, France
- 13.40 Commission, Dirk Beernaert IST, EC, Brussels, Belgium
- 14.00 Photonics²¹, Bernd Schulte, AIXTRON, Aachen, Germany
- 14.20 Information and Communication, John Oberstar, Cisco Systems, San Jose, CA, USA
- 14.40 Laser-assisted Manufacturing and Machine Vision, **Koji Sugioka,** RIKEN-The Institute of Physical and Chemical Research, Wako-Shi (Saitama-Ken), Japan
- 15.00 Coffee Break
- 15.15 Life Sciences and Health, **Sune Svanberg,** Lunds Universitet, Lund, Sweden
- 15.35 Lighting and Displays, **Bernhard Stapp**, Osram Optical Semiconductors GmbH, Regensburg, Germany
- 15.55 Metrology and Sensors, **Germán Vergara**, Centro de Investigación y Desarrollo de la Armada (CIDA), Madrid, Spain
- 16.15 Design and Manufacture of Components, James O'Gorman, Eblana Photonics Ltd, Dublin, Ireland
- 16.35 Educational Issues in Research and Training in Photonics, Marc Nantel, Photonics Research Ontario, Toronto, ON, Canada

Industry Applications: Specialist Optical Coatings Forum

The Coatings Forum requires an Industry Programme or Symposium registration badge for admission.



Salle Rohan

10.00 Introduction

Glenn Barrowman, Photonics Cluster (United Kingdom); Tom Pearsall, European Photonics Industry Consortium (France)

- 10.15 Norbert Kaiser, Fraunhofer Institut für Optik und Feinmechanik (Germany)
- 10.45 Peter Girow, Thales Optics Ltd. (United Kingdom)
- 11.15 Barry Holton, Plasma Quest Ltd. (United Kingdom)
- 11.45 **Des Gibson,** Applied Multilayers Ltd. (United Kingdom)

12.15 to 12.45 Question and Answer Session/Discussion Forum

Conference 6198 - Photonics in the Automobile

Conference 6198 requires an Industry Programme or Symposium registration badge for admission.

Salon Leicester

Forum on Micro-Optics: Benefits to Industry

Salle Orangerie

The Micro-Optics forum requires an Industry Programme or Symposium registration badge for admission.



Hugo Thienpont and Tomasz Nasilowski, Vrije Universiteit Brussel; Jürgen Mohr and Holger Moritz, Forschungszentrum Karlsruhe GmbH;

Malgorzata Kujawinska, IMiF, Warsaw University of Technology

This forum aims at introducing the benefits of micro-optics to potential industrial users. It provides the participants with first hand information on micro-optics technologies and components, and their potential applications. Participants will have time to discuss specific questions with experts from all over Europe, in particular with members of the service and technology centres of the EC-Network of Excellence in Micro-optics, NEMO.

Micro-Optics Forum Program:

9.00 to 9.40

NEMO - a powerful tool for micro-optics in Europe

NEMO - the European Network on Micro Optics, an overview NEMO Industrial User Club (IUC)

9.40 to 10.30

NEMO service centre 1 - capabilities and services to industry Centre for modelling of micro-optical components Centre for fabrication of micro-optical systems

10.30 to 11.00 . . . Coffee break

11.00 to 12.15

NEMO service centre 2 - capabilities and services to industry Centre for characterization of micro optical components and new measurement tools Centre for assembly & packaging of micro optics

Centre for reliability & standardization for micro optics

12.15 to 13.15 . . . Lunch

13.15 to 14.05

Food Chain in Micro Optics 1: Fibre sensors Fibre sensors for strain & temperature measurement Design, fabrication and characterization of new fibres for sensor applications

14.10 to 15.00

Food Chain in Micro Optics 2: Micro Lenses Advantages of using micro lenses in imaging applications Design, fabrication and characterization of micro lenses and lens arrays

15.00 to 15.30 . . . Coffee break

15.30 to 16.50

Application fields of micro optics Optical interconnects at the PCB level Diffractive and sub-wavelength micro-optics for light management Infrared micro optics Emerging applications in Micro Optics

16.50 to 17.00 . . . Summary & conclusions

Invited Speakers:

- **Hugo Thienpont,** Department of Applied Physics and Photonics, Vrije Univ. (Belgium)
- Malgorzata Kujawinska, Warsaw Technical Univ., Institute of Micromechanics and Photonics (Poland)
- Jürgen Mohr, Abteilung Mikrooptik Forschungszentrum Karlsruhe, Institut fur Mikrostrukturtechnik (Germany)
- Tomasz Nasilowski, Department of Applied Physics and Photonics, Vrije Univ. (Belgium)
- **Norbert Lindlein,** Chair of optics, Friedrich-Alexander-Univ. Erlangen-Nuernberg (Germany)
- Youri Meuret, Department of Applied Physics and Photonics, Vrije Univ. (Belgium)
- Mo Taghizadeh, Optical Interconnects, Heriot-Watt-Univ. (United Kingdom)
- Heidi Ottevaere, Department of Applied Physics and Photonics, Vrije Univ. (Belgium)

Peter van Daele, Univ. Gent, INTEC (Belgium)

- Pentti Karioja, VTT Electronics/Optoelectronics (Finland)
- Francis Berghmans, SCK•CEN, Belgian Nuclear Research Ctr. (Belgium)
- Waclaw Urbanczyk, Institute of Physics, Wroclaw Univ. of Technology (Poland)
- Kenneth Weible, SUSS MicroOptics SA (Switzerland)
- Marc Schneider, Abteilung Mikrooptik Forschungszentrum Karlsruhe, Institut fur Mikrostrukturtechnik (Germany)
- Markus Rossi, Heptagon Oy (Finland)
- Andreas Gombert, Fraunhofer Institute for Solar Energy Systems (Germany)

7

- Peter Muys, VDM Laser Optics NV (Belgium)
- Nathalie Vermeulen, Department of Applied Physics and Photonics, Vrije Univ. (Belgium)
- Olivier Parriaux, TSI lab, Saint-Etienne Univ. (France)
- Christophe Gorecki, Lab. d'Optique P.M. Duffieux, Univ.
- de Franche-Comté (France)

European Photonics Innovation Village

Contades Est

Open during Exhibition hours.



Under the Patronage of Henri Rajbenbach and Ronan Burgess, European Commission, Directorate General Information Society and Media, Belgium

Innovation Village

The European Photonics Innovation Village is organized to support and publicise research teams from universities, nonprofit institutions and research centres working on research, new applications or product development. All participants can be seen at the European Photonics Innovation Village in the upper exhibit hall Contades Est. The Village includes research programmes from around the world and showcases the transfer of optics/photonics research and technology into new and useful products. Plan to attend the finale of the competition, the Innovation Village Awards on Wednesday, 16.30 - 17.00 hrs in the downstairs exhibit hall Arp, Product Demo area.

This will be a judged competition with several awards. See web for complete competition details.

Innovation Village Judging Panel

Chair: Henri Rajbenbach, European Commission, DG Information Society and Media, Belgium

Members: Paul McManamon, Air Force Research Lab, USA; Ronan Burgess, European Commission, DG Information Society and Media, Belgium; Hugo Thienpont, Vrije Universiteit, Belgium; Giancarlo Righini, CNR, Italy; Patrick Meyrueis, Univ. Louis Pasteur, France; Paul Smigielski, RhenaPhotonics Alsace President, France; Michel Faupel, NIBR-Novartis and RhenaPhotonics Alsace Vice-president (biophotonics); Bernard Kress (LSP), France; Elmar Wagner, Fraunhofer Institut IPM, Germany (to be confirmed).

Lunch with the Experts - A Networking Event

Galerie de Marbre

Awards

The Innovation Village Selection Committee will grant awards in specific categories. Awards will be announced on Wednesday evening. Award categories are as follows, both in a European and Non-European category:

1) Best overall product

- 2) Best design (based on the design of the technology into the product)
- 3) Best technology (based on the best new use of technology)
- Best marketability (based on the product most likely to sell in the marketplace)
- 5) Best application (based on the proposed solution to a critical problem)

European Village

The European Village will include displays of literature and information on European photonics initiatives, Networks of Excellence, Integrated Projects and other EC projects that will showcase their consortia as well as recent breakthroughs.

Map out your Career

Salon Stuttgart

Thursday 11.30 to 12.30

Photonics: A Novel Technology for the 21st Century.



Hugo Thienpont, Director of Research, Vrije Univ. Brussels Learn about emerging technologies and map out

your career in the Photonics world. Get insight into navigating possibilities in research and industry, and to European projects.

Advertisers Index

Cristal Laser SA35
EKSPLA Ltd 10
Nature Publishing Group inside back cover
Photonics Online9
Photoniques

Technical Writing for Physical Scientists and Engineers

This course describes how to write clear, easy-to-follow, technical articles and reports that are appropriate for any given audience. Instruction progresses from the basic philosophy of communication and how this affects the core content and style of a document to article structure, paragraph construction, sentence construction, and use of vocabulary and punctuation. As well as teaching the basic rules of technical writing, this course explains the principles that underpin these rules. This deeper understanding will allow attendees to make more informed decisions about which elements of style they must follow, and to make better choices when faced with the many gray areas involved with technical writing. Finally, the course will help scientists and engineers to develop an eye for problems in their own writing and that of their colleagues.

LEARNING OUTCOMES

This course will enable you to:

- consider the audience at the beginning of the writing process, and use this knowledge to identify the appropriate content and level for the article
- use and design article structures that best relate the content in question
- construct paragraphs and sentences appropriately
- maximize information conveyed, and minimize reader boredom, by avoiding repetition
- consistently use the appropriate style, voice, and tense for a given document
- avoid hype, jargon, clichés, gibberish, mixed metaphors, and poor punctuation

INTENDED AUDIENCE

This course is intended for anyone who feels their writing needs improvement: from Ph.D. students to consulting engineers to professors. Reasonable fluency in English is required.

INSTRUCTOR

Sunny Bains is a scientist and journalist. She has been writing for the technical and popular science press, including Laser Focus World, Electronic Engineering Times, New Scientist, Science, and The Economist, for almost 15 years, edits six newsletters related to machine intelligence, imaging, and emerging computing technologies, and consults for the European Commission and the (UK) Engineering and Physical Sciences Research Council. At Imperial College London, she is both the core technical writing lecturer for the Graduate School of Engineering and Physical Sciences and lead tutor in technical communication for the Department of Electrical and Electronic Engineering.

Course level: Introductory

Free for students registered for Photonics Europe 2006.

WS611 CEU .35 €45 / €85 USD Wednesday 13.30 to 17.30

Courses/Workshops

Tuesday

SC788 Micro Laser Material Processing, €190 / €220, 13.30 to 17.30

Wednesday

SC787 Digital Diffractive Optics: A Powerful Tool To Address Emerging Optical Markets, €190 / €220, 8.30 to 12.30

WS611 Technical Writing for Physical Scientists and Engineers, ${\in}45\,/\,{\in}85,\,13.30$ to 17.30

Students save 50% on courses! Register at the registration desk.



Recruiting Services

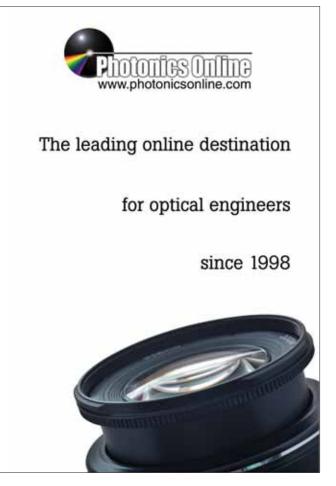
Bring copies of your open positions to Photonics Europe and post them on the boards provided for this purpose. While at the meeting you will also be able to review any CVs posted by meeting attendees; look for the notebook located near the job posting boards. If you're searching for highly skilled candidates for hard-to-fill positions this is a great place to start.

If you don't find the candidates you need, SPIEWorks, the SPIE employment website can help you target a skilled group of optics and photonics professionals after the meeting. Contact Robert Dentel at +1 360 715 3705 or email sales@spieworks.com Membership in SPIE is not required to post jobs.

Employment Opportunities

Plan to stop by these same job boards throughout the meeting and review current employment opportunities.

In addition to our onsite posting boards, SPIEWorks, the SPIE employment website, offers you an online job database, resume posting, and email notification services year round. Visit www.spieworks.com



Photonics Europe

3 to 7 April 2006 Palais de la Musique et des Congrès Place de Bordeaux, Strasbourg, France www.strasbourgmeeting.com; Tel: (33) 03 88 37 67 67

Registration Hours

Palais de la Musique et des Congrès, Foyer/Galerie le Corbusier

Sunday 13.00 to 17.30
Monday07.30 to 17.00
Tuesday
Wednesday
Thursday
Friday

Exhibition Hours

Palais de la Musique et des Congrès Espace d'Arp and Contades	
Tuesday	10.00 to 17.00
Wednesday	10.00 to 17.00
Thursday	10.00 to 16.00

Audio/Video/Digital Recording Policy

For security and courtesy reasons, photographing or videotaping individual booths and displays in the exhibit hall is allowed ONLY with explicit permission from onsite company representatives. Individuals not complying with this policy will be asked to surrender their film and to leave the exhibition hall.

Coffee Breaks

Monday, Tuesday, Thursday 10.00 to 10.30 and 15.00 to 16.00 Wednesday 10.00 to 11.00 and 15.30 to 16.00 Friday 10.00 to 11.00 to 11.00 Coffee will be served during the morning and afternoon breaks. Please check the individual technical conference listings for exact times. On Tuesday to Thursday, coffee will be served in the Exhibition Hall, Espace d'Arp on the Ground Floor and Contades on the first floor.

Desserts

Complimentary tickets for dessert snacks will be included in attendee registration packets. These dessert snacks will be served in the Exhibition Hall, Espace d' Arp on the Ground Floor and Contades on the first floor of the convention centre on Tuesday and Thursday from 15.00 to 15.30, during coffee breaks.



Messages for Attendees

Messages for attendees at Photonics Europe can be left by calling the Palais de la Musique et des Congrès at Tel. 33 (0) 3 88 37 67 67, Fax 33 (0) 3 88 35 38 17 and asking for the SPIE conference registration desk. Messages will be taken during registration hours Monday through Friday. Attendees should check the message boards at the message center on a daily basis to receive their messages.

Lunch

Lunch is available for purchase between 12.00 and 13.30 at the back of Arp and Contades, as well as at the Café on the 1st level outside of Contades.

Internet Access/WiFi

Convention Centre, Vestiaire near Auditorium Schweitzer

Monday to Friday during registration hours.

Several internet access terminals will allow attendees to access their internet e-mail during the conference. There will be a 10-minute time limit per each person's internet session.

Attendees may individually purchase WiFi access. Open browser and follow directions for purchase by credit card from the SWISSCOM EUROSPOT website. Prices include VAT.

SPIE Publications

Near Registration Desk

Open during registration hours. SPIE publications will be for sale in the Registration area.

Luggage Storage and Coat Check

Convention Centre, Ground Floor near Entrée Schweitzer.

Free Parking

There are 500 parking spaces at the Palais de la Musique et des Congrès. Parking at the Congrès Centre is complimentary.

Taxi

The Taxicabs are present at the airport until about 23.00 (arrival of the last flight). Between the airport and the downtown, the cost will be about $23 \in$ by day and $38 \in$ at night.

Travel by Tram

The Strasbourg public transport network is composed of 23 bus lines and 4 tram lines accessing the whole Strasbourg area. The Relay-Tram parking lots offer parking next to a tram station and access the city center within a few minutes. Information CTS (Company of Strasbourg Transportation) Tel: (33) 03 88 77 70 70 www.cts-strasbourg.fr

To get to Palais de la Musique et des Congrès de Strasbourg from the Strasbourg Airport-Entzheim, take the airport shuttle, leaving every 20 minutes from the "arrivals terminal" to Tram stop Baggersee, where there is a connection to Tram Line A to downtown. Take Tram Line A (towards Hautepierre Maillon) and get off at Tram Stop Homme de Fer. Transfer to Tram Line B (towards Hoenheim Gare) and get off at either Tram Stop Lycée Kléber, which is within walking distance and just before the Palais de la Musique, or Tram Stop Wacken, which is just after the Palais de la Musique.

To get to the airport from the center of Strasbourg, take tram line A (towards Illkirch Lixenbuhl) and get off at Baggersee, where there is a shuttle leaving every 20 minutes, arriving at the airport in 12 minutes. Airport Shuttle Fare: One way $4,80 \in$, Return $8,80 \in$

The Relay-Tram Parking Lots

Set up along the tram lines, the Relay-Tram parking lots (P+R) offer the possibility to park your vehicle close to a tram station and travel downtown without worry of traffic or parking. In return for the price of parking for the day, all occupants of the vehicle receive a ticket permitting a round-trip by tram. For parking solutions www.parcus.com

The Tour Pass & Familipass

The Strasbourg Transportation Company (CTS) offers to tourists a daily ticket, The Tour Pass, @ $3 \in$ for 24 hours usage on buses and trams all year round. The Familipass @ $3,80 \in$ good for 24 hours is for a family of 2 to 5 persons (minimum 1 parent and one child under 18 years old).

Travel by Rail to Strasbourg

Entzheim Rail Station is only 5 minutes walking distance from the airport terminal. For the train schedule: http://www.strasbourg.aeroport.fr/E/ trains.html The train runs regularly about every half an hour from 5:34 through 20:42. It is a 14 minute ride from downtown Strasbourg to Entzheim Station at the airport. Railway information Tel: 08 92 35 35, www.sncf.com

Exhibitor Directory



Exhibition Hours

Palais de la Musique et des Congrès Espace d'Arp and Contades

Lopuoo a rap ana oomaaoo	
Tuesday	10.00 to 17.00
Wednesday	10.00 to 17.00
Thursday	10.00 to 16.00

A.R.T. Photonics GmbH

#120

Schwarzschiedstr 6, Berlin, Germany, 12489 49 30 67894153; fax 49 30 67894156 info@artphotonics.de; www.artphotonics.com

New Product: High Power Fiber Cables for flexible delivery of high intensity laser radiation in technology and medicine.

A.R.T. Photonics GmbH, Berlin, is OEM leader in production of fibre cables for high power delivery in laser technology/medicine and of fibre probes for spectroscopy in 0.2-18µm range. EuroFiber® products are based on silica, polymer, polycrystalline (PIR), chalcogenide (CIR) and Ge-oxide fibre cables, bundles & probes. HP-silica cables can transmit laser power in kW range and be used up to 600°C - when fibre coated by Al or Cu-alloys. Unique PIRfibers enable to use FTIR & QCL-spectroscopy for process control in 3-17µm range and to develop flexible IR-fiber imaging systems.

AFOP - French Optics and Photonics Manufacturers Association #1300

185 rue de Bercy, Paris cedex 12, France, F-75579 +33 1 43 46 57 50; fax +33 1 43 46 27 58 www.gifo.org

French Optics and Photonics Manufactures Association (AFOP) is a trade union dedicated to photonics professionals for the promotion and the defense of the industry interests in France and aboard: Exhibitions, market survey, business intelligence, bulletin of bids for tender, delegation in the standardization committee(s). Contact: Eric Billet, Institutional and Business Relationships Manager, eric.billet@gifo.org.

AHF analysentechnik AG

#608

Kohlplattenweg 18, Tuebingen, Germany, 72074 49 7071 970901-0; fax 49 7071 970901-10 info@ahf.de: www.ahf.de

New Product: Hardcoated filters and filtersets for fluorescence microscopy, Raman and laser spectroscopy.

In cooperation with renowned companies, universities and research groups AHF analysentechnik develops user-specific filter solutions for fluorescence (single/multiphoton) and Raman spectroscopy. AHF

offers a wide selection of filters and filtersets for any type of fluorescence microscopes and stereoscopes. Our team with long-termexperience in development and application will help to answer your questions. Contact: Michael Sommerauer, ms@ahf.de: Andreas Braunwarth, ab@ahf.de.

12



High transmissive optical filters for fluorescence and Raman spectroscopy.

Alsace International

#1408

Parc d'innovation, 9 Bd Gonthier d'Andernach, ILLKIRCH, France, F-67400

33 3 88 24 77 68; fax 33 3 88 24 77 77

Alsace International is the coordinator of all actors in Alsace working for the international development of Alsace. The Région Alsace, the Conseil Général du Bas-Rhin, the Communauté urbaine de Strasbourg and the Alsace Development Agency actively support Photonics Europe. All companies or researchers wishing to carry out their activities in Alsace can contact Alsace International. Contact: Patricia Hatesuer, Project Manager, p.hatesuer@ada-alsace.com.

ATI Optique

ZA de St Guenault, Courcouronnes, France, F-91080 33 1 6936 6400; fax 33 1 6497 1484

New Product: Fiber Optic Connector for High Power Laser.

Fiber optic component supplier for telecom, industrial, datacom, medical, laser, sensors: couplers, WDM, connectors, and patch cords. R&D and prototypes for fiber optic applications. Fiber optic sensors. Custom design products include hermetic feed through, chisel point, and dichroic filters. Specialist of multimode couplers from 50/125 up to 1000µm fibers, high temperature couplers. Contact: Jean-Michel Malavieille, Sales Director: Pascal Slobadzian, Sales Engineer.

Avantes BV

#302

#316

Soerensezand 4A, Eerbeek, The Netherlands, NL-6961 LL

New Product: AvaSpec-3648-USB2.

Avantes develops and manufactures products in the field of Spectroscopy, such as spectrometers, light sources, software, fiber optic cables and probes, accessories and fiber optic sensor

systems. With over 12 vears of experience in Solutions is Spectroscopy; Avantes continues to produce innovative applications in diverse fields including industrial, chemical, petrochemical, gemology, biomedical. semiconductor and food processing technology. Contact: Benno Oderkerk, Technical Director; Klaas Otten, Sales Manager.



New AvaSpec-3648-USB2 Spectrometer combines high resolution and sensitivity with high speed USB2 interface



Ayase Europe GmbH

#704

Nassaustrasse 28, Hofheim - Wallau, Germany, 65719 +49 6122 533811; fax +49 6122 533941 jsteiner@ayase-europe.de

New Product: ADL-65055TA, ADL-65055SA. APC (Auto Power Control) IC inside. Saving module cost.

Ayase Europe GmbH was established on February 1st, 2006. Ayase Europe GmbH is a wholly owned subsidiary of Ayase Co.Ltd; Japan who has been in business since 1998. Ayase Co., Ltd. Japan has customers world wide and it was decided to establish a new company in Europe, Germany to service locally the growing customer base there. The product lineup continues to expand with the addition of new manufacturing partners. Contact: Jimmy Steiner, Director Sales & Marketing.

Becker & Hickl GmbH

#206

Nahmitzer Damm 30, Berlin, Germany, D-12277 49 30 787 5632; fax 49 30 787 5734 www.becker-hickl.de



A complete picosecond fluorescence imaging system on a single PCI board.

BFI Optilas International

#400

La Petite Montagne Sud-Lisses, 4 allee du Cantal, Evry Cedex 1834, France, F-91018

33 1 60 79 59 12; fax 33 1 60 79 89 01 sales.fr@bfioptilas.com: www.bfioptilas.com

New Product: Many new products for lasers, accessories, imaging systems for OEM, Optical instrumentation.

BFi OPTiLAS, an AVNET Company, is a pan-European technical distributor of specialist products and services, including designengineering support, to the electronics and Photonics markets. BFi **OPTiLAS** focuses on niche technology products such as magnetic, lasers, sensors, connectors, electrooptics, imaging, fiber optics, RF & microwave and other specialty components, systems, assemblies and metals. Some 310 sales



CVI and BFi OPTiLAS introduce QuantaGlas Singlet lenses for imaging and low power laser applications.

engineers and other staff are employed at 12 offices throughout Europe. Contact: Philippe Goupilleau, Business

Unit Manager, philippe.goupilleau@bfioptilas.com; Thierry Palustran, Business Unit Manager - Instrumentation,

Thierry.palustran@bfioptilas.com.

Boehringer Ingelheim MicroParts GmbH

#700

Hauert 7, Dortmund, Germany, 44227 +49 231 97 99 0; fax +49 231 97 99 100 service@microparts.de; www.boehringer-ingelheim.de/microparts

New Product: UV/VIS and NIR Microspectrometer for use in mobile measuring and diagnostic equipment.

Boehringer Ingelheim microParts GmbH develops, manufactures and sells micro-system-technology products in the field of life science. The product range includes technically advanced and innovative mechanical, optical and fluidic products manufactured from a wide variety of plastics, metals and silicon. Examples of products are propellant free aerosol systems (Respimat®), microstructured reaction platforms (lab on a chip-systems) and microspectrometers (UV/VIS and NIR). Contact: Stefan Kreuzberger, stefan.kreuzberger@microparts.de; Nancy Altkrüger, nancv.altkrueger@microparts.de.

Breault Research Organization #1007

SPIE Corporate Member

6400 E Grant Rd Ste 350, Tucson, AZ, 85715-3862 520/721-0500; fax 520/721-9630 info@breault.com: www.breault.com

New Product: ASAP lite, ASAP CAD+, ASAP OPTICAL+, ASAP BIO, ASAP ADVANCED, ASAP COMPLETE.

Breault Research Organization (BRO) offers cutting-edge optical software, consulting services, prototyping, training, and custom software development. BRO's expertise spans the biomedical, automotive, display, semiconductor, and telecommunications industries. BRO tailors solutions to meet client goals - from providing software that empowers designers to create and test their own systems, to taking customers' projects through the BRO engineering design process to the manufacturing floor. Contact: Stacy Munger, Account Manager - BRO Software Applications, smunger@breault.com; Michael Frate, Account Manager - BRO Engineering Services, mfrate@breault.com.

Calcarb Ltd.

#107

12 North Rd, Bellshill Lanarkshire, United Kingdom, ML4 1EN 44 1698 740 818; fax 44 1698 841 979 sales@calcarb.com: www.calcarb.com

New Product: Calcarb new CVI range is made by densifying CBCF materials. This reduces most chemical reaction rates.

Calcarb Limited is a manufacturer and global supplier of premium high purity Carbon Bonded Carbon Fibre (CBCF) based Rigid Insulation and precursor materials for vacuum and controlled atmosphere furnaces. Calcarb Limited manufacture a range of Rigid Thermal Carbon Insulation and materials that are selected for precursors in alternative materials development. All materials are manufactured from a Rayon Fibre and fully traceable under ISO 9001:2000. Contact: David Robertson, International Sales Manager; George Law, Technical Sales Engineer.

Carl Hanser Verlag

#803

Kolbergerstr 22, Muenchen, Germany, 81679 49 89 99830 0; fax 49 89 99830 623 info@hanser.de: www.hanser.de

New Product: Laser + Photonik; Laser + Photonics.

The magazine Laser + Photonik targets specifically and exclusively developers of optical, optoelectronic and laser systems as well as the decision-makers in buying equipment - especially in the target markets of machine and device engineering, telecommunication, medical technology and the automotive industry. Contact: Rolf Hörr, Advertising Manager, hoerr@hanser.de.

CEDRAT Technologies

#416

15 Chemin de Malacher Inovallee, Meylan Cedex, France, F-38246 33 4 7690 5045; fax 33 4 7690 0830 actuator@cedrat.com; www.cedrat.com

New Product: Piezo Actuators, Magnetic linear actuators, Piezo scanners, driving electronics.

Engineering & Products in electrical. mechatronic and sensing devices. Sales of piezoelectric actuators & mechanisms, magnetic linear actuators & ultrasonic transducers with their related driving and control electronics.



Amplified piezo actuators for large, fast and precise positioning and vibrations

CeramOptec GmbH

Siemensstr 44, Bonn, Germany, 53121 49 228 9796750; fax 49 228 9796799 info@ceramoptec.de; www.ceramoptec.com

CeramOptec offers a broad range of industrial fibers, cables, bundles for spectroscopy, laser application, sensoric, medical lasers, dental lasers, ophthalmologic lasers, medical fibers, substances for photodynamic therapy. If you have questions, please contact us! Contact: Franz Schuberts, Industrial Sales, franz.schuberts@biolitec.com.

CeramOptec offers a broad range of industrial fibers, cables, bundles and also medical lasers and medical fibers (probes).

Chroma Technology Corp

SPIE Corporate Member

PO Box 489, 10 Imtec Ln, Rockingham, VT, 05101 802/428-2500; fax 802/428-2525 sales@chroma.com: www.chroma.com

Chroma Technology Corp. is an employee-owned company that specializes in the design and manufacture of precision optical filters and coatings

Catalog and custom filters cover a broad range of applications: lowlight fluorescence

microscopy and cytometry; spectrographic imaging in optical microscopy; laser-based confocal and multi-photon instrumentation; and Raman spectroscopy. Contact: Ed Kiegle, Ph.D., Applications Scientist. ekiegle@chroma.com.



Chroma Technology provides catalog and custom precision filters for optical microscopy and instrumentation.

Communauté Urbaine de Strasbourg

#1410

#1406

1 Place de l'Etoile, BP 1049/1050, Strasbourg, 67070, France 33 3 88 60 90 90; fax 33 3 88 60 97 73

Conseil General du Bas-Rhin

Hotel du Departement, Place du Quartier Blanc, Strasbourg, France, F-67000 33 3 88 76 67 67; fax 33 3 88 76 65 39

Cristal Laser SA

#1211

SPIE Corporate

32 Rue Robert Schumann, Messein, France, F-54850 33 3 83 47 82 58; fax 33 3 83 44 22 72 mail@cristal-laser.fr: www.cristal-laser.fr

New Product: KTP.fr is a KTP specially grown to resist greytrack in high power, high repetition rate lasers.

Cristal Laser S.A. speccializes in crystal growth, manufacturing and distribution for applications involving nonlinear optics. Our product range includes KTP, KTA, RTP and LBO. Our stateof-the-art manufacturing tools also enable us to offer cut/polishing services on non house-made optical materials. Contact: Marc-André Herrmann, Sales & Marketing Engineer. ma.herrmann@cristallaser.fr.



Large size KTP frequency-doubling crystals from Cristal Laser are convenient for high-energy applications.

CVI Technical Optics Ltd.

#706

#504

Second Ave, Onchan, Isle of Man, United Kingdom, 1M3 4PA 44 1624 647 000; fax 44 1624 676 859 sales@tol-cvi.com: www.cvilaser.com

CVI Technical Optics is one of the world's leading manufacturers of High Energy Laser Optics. Products include a full catalogue range of over 200,000 unique parts, creating the world's largest inventory of Laser grade components. Whether your need is OEM, R&D, Aerospace, Military, Industrial or Semiconductor, one off or one million off, CVI has the answer. CVI, Concept, Vision and Innovation.

Davin Optronics Ltd.

15 Greycaine Rd, Watford Herts, United Kingdom, WD24 7GW 44 1923 206800; fax 44 1923 228335

sales@davinoptronics.com; www.davinoptronics.com

Davin Optronics designs and manufactures precision optical systems and components for Laser, Thermal Imaging, Defence and Machine Vision. We have comprehensive, in-house, capabilities including optical, mechanical, electronics and software design, precision optics manufacturing, thin film coating and opto-mechanical assembly and test. On display will be Laser scanning lenses, optomechanical assemblies and customized machine vision camera systems. We will also be exhibiting the latest "off the shelf" range of mechanics and optics, included in the all new DAVIN CATALOGUE. Contacts: Horace Vincent, Sales Manager-Catalogue Division, horacev@davinoptronics.com; Simon Pascoe, Product Manager, simon@davinoptronics.com.

Dow Corning Corp

#109

2200 Salzburg Rd, Midland, MI, 48611 989/496-6229; fax 989/496-4586 c.dougherty@dowcorning.com; www.dowcorning.com

ECOC 2006

Nexus Media Communications Ltd, Media House Azalea Rd, Swanley Kent, United Kingdom, BR8 8HU 44 1322 660070; fax 44 1322 616350 sales@ecocexhibition.com; www.ecocexhibition.com

ECOC 2006, Cannes, France, 24-28 September guarantees the greatest integration yet between the conference and exhibition events, with a higher level of interactivity than ever providing to all attendees a large coverage of all activities in Optical Communications from first step in innovation to real network deployments. Contact: Beverley Lucas, Event Manager, beverley.lucas@nexusmedia.com.



#308

#309

Edinburgh Instruments Ltd

#208

2 Bain Sq, Kirkton Campus, Livingston, United Kingdom, EH54 7DQ 44 1506 425 300; fax 44 1506 425 320 pa@edinst.com; www.edinst.com

New Product: Picosecond Diode Lasers - 375-635nm, Nanotaurus - Lifetime Platereader based on TCSPC detection.

Edinburgh Instruments Ltd has been a leading manufacturer for over 30 years of infrared gas lasers (wavelengths from $5.2f_m$ to 1mm), analytical instruments such as fluorescence spectrometers (steady state and lifetime measurements using the time-domain technique of Time Correlated Single Photon Counting (TCSPC)), OEM Gas Sensors and is a distributor for lasers and spectroscopy instruments. Contact: Mark Goossens, Sales Engineer,

Mark.Goossens@edinst.com; Tanya Lake, Sales Engineer, Tanya.Lake@edinst.com.

EDP Sciences

#1001

33 1 691 87575; fax 33 1 691 80765 edps@edpsciences.org; www.edpsciences.org New Product: Publication of scientific texts in journals,

17 Ave du Hoggar, Courtaboeu Les Ulis Cedex, France, F-91944

books and web-sites.

Closely linked to the Scientific World, EDP Sciences contributes to the communication and the diffusion of Science to specialized (researchers, engineers, students, etc...) and non-specialized (general public, decision-makers, education) audiences. EDP Sciences publishes scientific texts in the form of journals, books and web-sites. Contact: Nathalie LeCrosnier, Responsible for Journals Communications, lecrosnier@edpsciences.org.

EKSPLA Ltd.

SPIE Corporate

Savanoriu Av 231, Vilnius, Lithuania, 02300 370 5 264 4629; fax 370 5 264 1809 sales@ekspla.com; www.ekspla.com

New Product: THz Spectroscopy Kit for extending existing systems capabilities into THz frequency region.

Manufactures and supplies solidstate lasers and laser systems; OPG/ OPA; opto-electronic components; optical components (UV. IR. polarizing, high-power laser optics): nonlinear, laser and electro-optical crystals (BBO, LBO, KTP, KD*P, AgGaSe2, AgGaS2, Yb:KYW, Nd/ Yb:KGW. Nd:YAG/YVO4): optomechanical components - for

research and industry. Contact: Vytas Gatelis, Laser Systems Sales Manager; Daugirdas Kuzma, Photonics Components Sales Manager, photonics@ekspla.com.

***** **Exhibitor Reception Sponsor** Electro Optics Magazine

27 Queen Sq, Bristol, United Kingdom, BS1 4ND 44 117 929 2506; fax 44 117 929 2506

sales.electro@europascience.com; www.europascience.com

Electro Optics is the number one magazine for Europe's photonics market. If you need to do business in Europe, no other magazine is better positioned or better able to help you achieve your goals. Contact: Alex Sullivan, Publishing Director, as@europascience.com; Drew Cameron, Group Sales Manager, dc@europascience.com.

Electron Tubes

#410

Bury St, Ruislip Middlesex, United Kingdom, HA4 7TA 44 1895 630771; fax 44 1895 635953 info@electron-tubes.co.uk; www.electrontubes.com

New Product: Electron Tubes offer high voltage control and monitoring systems for its power base products.

Electron Tubes designs, develops and manufactures photomultipliers, other light and radiation sensing devices and accessories. We have expertise in imaging and non-imaging optics, scintillation counting.

statisics of light detection, nuclear and particle physics and electronics. We are developing new business with our x-ray detection and data acquisition modules to meet customer requirements. Photomultipliers, photon counting, low light level, x-ray linear array detectors, security. Contact: Ron Stubberfield, Sales Manager - Europe, ron.stubberfield@electrontubes.co.uk.



Detector modules for photon counting, pulsed light and analogue applications.

Epner Technology, Inc.

SPIE Corporate Member

78 Kingsland Ave, Brooklyn, NY, 11222-5603 718/782-5948; fax 718/963-2930 epner78@aol.com; www.epner.com

European Network of Excellence in Micro-Optics

#EPIV1

#1006

Vub Tona - IR, Pleinlaan 2, Brussels, Belgium, 1050 +32 2 629 3568; fax +32 2 629 3450 ndebaes@tona.vub.ac.be; www.micro-optics.org

NEMO is a 6FP European Network of Excellence in Micro-Optics. The main objective is to integrate the competence in micro optics over Europe and to strengthen the R&D activities in this field. It is the aim to set-up strong service and technology centers which are accessible for academic research, SMEs and large companies. The NEMO Industrial User Club will open the door to this organized competence for its Contracting partners. More information about NEMO: www.micro-optics.org. Contact: Tomasz Nasilowski, Industrial User Club Communication Officer, tnasilowski@tona.vub.ac.be; Nathalie Debaes, Project Support

Officer

European Optical Society (EOS)

#409

15

Hollerithallee 8, Hannover, Germany, 30419 49 511 2788117; fax 49 511 2788100 info@myeos.org

The European Optical Society (EOS) is a recognised society in the field of modern optics and photonics which, representing more than 5000 individuals, 100 companies and institutes and 18 national societies, has the potential to constructively contribute to the technological progress in Europe. The EOS serves as the joint forum for all individuals, companies, organisations, and societies, who recognise the opportunity that a common European base provides for the further development of optics. Contact: Silke Kramprich.

#412

NT340/UVE series tunable

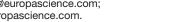
Q-switched nanosecond

laser offer hands-free, no-

gap UV tuning in 210-420

nm range and further to

2300 nm.



Fischer Connectors Sarl

#1111

4 Place Felix Eboue, Paris cedex 12, France, 75583 +33 1 55 78 25 78; fax +33 1 55 78 25 75 mail@fischerconnectors.fr; www.fischerconnectors.fr

Fischer Connectors looks for the optimum solution for an efficient and reliable connection, Our connectors have an excellent reputation, in sectors whose applications require customized development and faultless quality: Medical equipment, industrial instrumentation, controlling and measuring devices, audio-video, telecommunications, military applications. We are always prepared to invest as much time and effort as necessary to ensure you get the connector best suited to



Hybrid connectors with Fiber optic. signal, fluid and gas contacts. IP68, HIGH VACUUM 10-9.

your needs. Contact: Guy Lacroix, Director.

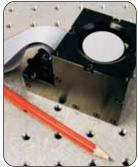
Flexible Optical BV

Rontgenweg 1, DELFT, The Netherlands, 2624 BD +31 15 2851547; fax +31 15 2851548 gleb@okotech.com; www.okotech.com

New Product: Real-time adaptive optical system based on a new **37-channel piezoelectric** deformable mirror.

Flexible Optical B.V. (aka OKO Technologies) develops, manufactures and delivers adaptive optical components and integrated solutions for application in imaging systems, laser physics, astronomy, ophthalmology and ultrafast optics. The company offers MEMS and piezoelectric deformable mirrors, Shack-Hartmann wavefront sensors. closed-loop adaptive optical systems, varifocal liquid crystal lenses and software for diffraction analysis and hologram synthesis. Contact: Gleb Vdovin, Chief Executive Officer.





OKO 37-channel 30 mm low cost piezoelectric deformable mirror for industry, medicine and astronomy.

#515

FLIR Systems Ltd.

2 Kings Hill Ave, West Malling Kent, United Kingdom, ME19 4AQ 44 1732 220011; fax 44 1732 220014

New Product: ThermoVision Photon is a compact, high sensitive thermal imaging camera designed for OEM packaging.

Core by Indigo is a

division of FLIR Systems specializing in the production of infrared cores. FLIR's Core by Indigo capabilities includes infrared components, OEM camera cores and specialized solutions for military programs. Contact: Stan Laband, stan.laband@flir.com; Susan Petronio, susan.petronio@flir.com.



Core by Indigo is a division of FLIR Systems specializing in the production of infrared cores.

Fogale Nanotech

#1205

125 rue de l'Hostellerie, Parc Acti +, Bat A, Ville Active, NIMES, France, 30900 +33 4 66 62 05 55; fax +33 4 66 62 71 60 info@fogale.fr; www.fogale.fr

New Product: LISE LI: High accuracy Long Range reflectometer. T-MAP: Wafer Thickness Mapper.

Fogale Nanotech, an engineering company created in 1983, is now a worldwide known reference in the field of high accuracy dimensional metrology. Thanks to our multidisciplinary team with expertise in capacitive, optical, inductive and ultrasonic metrology and a strong scientific background, we provide standard and customized systems adapted to your implementation and utilization constraints. Contact: Alain Courteville, Optics Department Manager, a.courteville@fogale.fr.

FRAMOS Electronic Vertriebs GmbH #1200

Zugspitzstr 5 House C, Munich, Germany, 82049 49 89 710 6670; fax 49 89 710 66766 info@framos.de; www.framos.de

New Product: USB2.0 Camera LW290/295; 20fps at full 2M Px resolution; 8- or 12 bit pixel data; 2/3" CMOS Sensor.

FRAMOS has the vision to provide the best solution in cooperation with its customers within the imaging processing and GPS industry. FRAMOS will always use leading edge technologies to satisfy the

needs of its customers. An enthusiastic team of qualified staff are available throughout the operation, many with technical experience, providing a high level of value - added support. Its product portfolio covers CCD area and linear sensors, CCD peripheral, CMOS sensors, cameras, lenses and GPS. Contact: Andreas Maier, A Maier@framos.de: Thomas Kluehspies, T.Kluehspies@framos.de.



2/3" 1.4M Pixel cooled FireWire CCD Camera, 14Bit A/D conversion, Dynamic Range > 66dB.

Fujian CASTECH Crystals, Inc.

No 155 Yangqiao West Rd, Fuzhou Fujian, China, 350002 86 591 837 92817; fax 86 591 8371 1593 www.castech.com

New Product: BiBO, Nd:KGd (WO4) 2, bonded crystals.

Fujian CASTECH Crystals, Inc. (CASTECH), founded in 1998, is specialised in manufacturing of a wide range of crystals, including NLO, laser birefringent, E-O-, A-O crystals and other optical components. As the inventor of BBO and LBO CASTECH is the exclusive patent holder of LBO crystals and its optical devices. Contact: Sharon Lin, Sales Manager, sales@castech.com.

***** **General Refreshment Sponsor** Gilden Photonics Ltd

#901

#122

480 Lanark Road, Edinburgh, UK, EH14 5BL + 44 131 442 4406; fax + 44 131 442 4406 sales@gildenphotonics.com; www.gildenphotonics.com

New Product: Modular components (light sources, monochromators, spectrographs, detectors) for spectroscopy.

Gilden Photonics is a new company focused on the development, sales and service of spectroscopic components and systems. Products offered include monochromators, spectrographs, spectrometers, light sources including xenon, deuterium, tungsten and globar sources, photomultiplier and photo diode detectors covering the spectral ranges from ultraviolet (UV) to Infrared (IR), as well as hyper-spectral imaging systems, precision opto-mechanical components and motorised positioning equipment. Contact: Richard Dennis, Commercial Director, richard.dennis@gildenphotonics.com.

GWU-Lasertechnik GmbH

#122

#413

Talstr 3, Erftstadt, Germany, 50374 49 2235 955220; fax 49 2235 75632 info@gwu-group.de; www.gwu-group.de

New Product: Compact fully integrated tunable laser system (Nd:YAG laser/OPO system).

GWU-Lasertechnik provide pulsed OPO and tunable laser systems for the UV, visible and NIR range, frequency converters, DPSS lasers, OPG/OPA, Echelle spectrographs (standard and customized), laser and non-linear crystals, QPM (periodically poled nonlinear materials, PPLN, PP-MgO:CLN, PP-MgO:SLN, PP-MgO:SLT bulk and waveguides), optical components (prisms, windows, polarizers, waveplates). Contact: Rainer Bruenger, Sales Manager, rainer.brunger@gwu-group.de; Sven Kern, Sales Engineer, sven.kern@gwu-group.de.

Coffee Break Sponsor

Hamamatsu Photonics France

Parc du Moulin de Massy, Massy Cedex, France, F-91300 33 1 69 53 7100; fax 33 1 69 53 7110 infos@hamamatsu.fr; www.hamamatsu.fr

Hamamatsu manufacture photodetectors and optoelectronic systems for 50 years. Based in Japan, Hamamatsu develop and manufacture

photomultipliers, lamps, X-ray screens and sources, high power laser diodes, photodiodes, digital cameras for inspection and test equipements, for the semiconductor industry and general manufacturing. Contact: Marc Birkel, Components Sales Manager, mbirkel@hamamatsu.fr; Laurent Luong, Components Sales

Manager, lluong@hamamatsu.fr.

HC Photonics Corp.

SPIE Corporate Science Based Industrial Park, 4F Technology Rd, Hsinchu, Taiwan, 300

HSINCHU, Talwan, 300 886 3 666 2123; fax 886 3 666 2124 www.hcphotonics.com

HC Photonics provides Periodically Poled Nonlinear Materials, PPLN, PP-MgO:CLN, PP-MgO:SLN, PP-MgO:SLT bulk and waveguides devices, with the highest performance for different applications specially for RGB display, Bio-Photonics, Mid-IR and THz applications. Contact: Karin Wu, Sales Manager, karin@hcphotonics.com.

HC Photonics Corp. provides

New high speed scintillators need New

high speed photomultipliers : R9800

R9420 - R9779

periodically poled nonlinear materials, PPLN, PP-MgO:CLN/SLN/SLT Bulk and Waveguide devices.

HGH Systèmes Infrarouges

ZAC de la Sabliere, 10 rue Maryse Bastie, Igny, France, F-91430 33 1 69 35 47 70 ; fax 33 1 69 35 47 80

New Product: VIGISCAN11: Infrared Panoramic Surveillance System for perimeter security and intrusion detection.

HGH Infrared Systems design, develop, assemble and sell complete optronic systems for security, industrial and civil applications. HGH's main lines of business are as follows: Security: Infrared panoramic surveillance system. Industry: Thermographic equipments for remote temperature measurement. Test and metrology: Infrared instrumentation (blackbodies, collimators, optical test benches), mobile workshop for maintenance of electro-optics sensors, imaging spectroradiometers, etc. Contact: Edouard Campana, Sales Engineer, hgh@hgh.fr; Maurice Idoux, Sales Manager, hgh@hgh.fr.



#1304

Panoramic camera for day and night surveillance and for detection of intrusion.

HTDS—Hi-Tech Detection Systems #1103

3 Rue du Saule Trapu, BP 246, Massy Cedex, France, 91882 +33 1 64 86 2828; fax +33 1 69 07 6954 info@htds.fr; www.htds.fr

HTDS is a distributor in France of High Performances Optoelectronics Components & Solutions. We propose Standard and Dedicated products for UV, Visible and IR applications. Our markets are Industrial, Biomedical, Scientific, Aeronautic, Spatial, Military and Consumer Devices. Our main products are EMITTERS: LEDs, Power-LEDs; Dedicated LED Solutions with "Chip-on-Board" technology; Xenon Flash Lamps; Laser Diodes & Pulsed Laser Diodes. SENSORS: Pyrodetectors, Thermopiles, Photocells; Photodiodes, Avalanche Photodiodes; Photomultipliers & Single Photon Counting Module; Image Tubes. INSTRUMENTS for Signal Recovery: Lock-in Amplifiers; Light Choppers; Digital Delay Generator; Multi Channel Scaler. OTHERS: Trigger Transformers, Capacitors, LED Optics and Fresnel Lenses.

Horiba Jobin Yvon SAS

#1208

16-18 rue du Canal, Longjumeau cedex, France, 91165 +33 1 64 54 13 00; fax +33 1 69 09 07 21 info@jobinyvon.fr; www.jobinyvon.fr

HORIBA Jobin Yvon is one of the world's largest manufacturer of analytical and spectroscopic systems and components: Analytical and modular research spectrofluorometers for lifetime and steadystate. Raman spectrometers. Particle size analyzers. X-ray fluorescence. Spectrographs, CCD & ICCD detectors, light sources and modular spectroscopic systems. Real time in-line characterization of thin films and process control. Industrial and spectroscopic ellipsometers. Contact: Michel Plockyn, michel.plockyn@jobinyvon.fr.

id Quantique SA

Chemin de la Marbrerie 3, Carouge/Geneva, Switzerland, CH-1277 41 22 301 83 71; fax 41 22 301 83 79 info@idquantique.com; www.idquantique.com

New Product: World smallest and fastest single photon counter at VIS wavelength, the id100.

id Quantique is a Swiss company specialized in photon counting. Its product lines include a NIR (900 -1700 nm) and a VIS (350 - 900 nm) Single Photon Detection Module. Available both with single- or multimode fiber as well as free space input. Id Quantique also produces a short pulse laser source at 780, 850. 1310 or 1550nm. Applications: Quantum Optics, spectroscopy and LIDAR. Other products are Quantum Key Distribution (QKD) systems and Quantum Random Number Generator (QRNG). Contact: Leonard Widmer, Vice President Sales, leonard.widmer@idquantique.com.



The id100-OEM, the world's smallest single photon counter.

III-Vs Review - Elsevier

#1604

#1600

#206

The Blvd, Langford Ln, Oxford, United Kingdom, OX5 1GB 44 1865 843644; fax 44 1865 843971 iii-vs@elsevier.com; www.three-fives.com

III-Vs Review is the leading international compound semiconductor magazine. Launched more than 15 years ago *III-Vs Review* has long been established as the essential resource for professionals at compound-based semiconductor fabs and foundries. *III-Vs Review* brings you: Business and technology news; Market analysis; Technical feature articles; Events diary; Materials and device R & D; Expert overviews. Go to www.three-fives.com to register for a free sample copy.

Image Analysis & Stereology

Medical Faculty , Korytkova 2, Ljubljana, Slovenia, Sl-1000 386 1 5437 312; fax 386 1 5437 301 ida.erzen@mf.uni-lj.si; www.wise-t.com/ias

International Society for Stereology is exhibiting its journal, Image Analysis & Stereology.

Image Analysis & Stereology

Imagine Optic

18 rue Charles de Gaulle, Orsay, France, F-91400 33 1 648 61560; fax 33 1 648 61561

New Product: New software version; Mirao: High dynamic deformable mirror; New

HASO128 + HASO64 + HASO UV.

Imagine Optic is Europe's leading provider of Shack-Hartmann wavefront sensing technologies for adaptive optics, quality control and optical measurement. Since 1996, we've been supplying industry leaders around the world with the high-quality products and services that they need to perform. From X-EUV, to the visible light spectrum and on to NIR (near infra-red), we develop, manufacture and support the largest range of wavefront measurement and correction technologies available. Contact: Caroline Adam, Sales Engineer, cadam@imagine-optic.com; Jérôme Ballesta, Sales Engineer, jballesta@imagine-optic.com.



New HASO 64 and 128: still the biggest dynamic, high absolute precision. More compacity, wider connectivity, easy integration.

Keopsys

21 Rue Louis de Broglie, Lannion, France, F-22300 33 296 050 800; fax 33 296 050 801 websales@keopsys.com; www.keopsys.com

New Product: 10W CW 1,5 μ m optical amplifier singlemode longitudinal.

Keopsys, based in Lannion, France, designs and manufactures high power and high performance optical amplifiers and fiber lasers for industrial, Telecom, CATV, research labs and defence applications.

Laser Components GmbH

Werner von Siemens Str 15 , Olching, Germany, 82140 49 8142 28640 ; fax 49 8142 286411

info@lasercomponents.com; www.lasercomponents.com

New Product: New additions to our extensive line of avalanche photodiodes.

Silicon and InGaAs APD are the perfect match for our 905 and 1550 nm Pulsed Laser Diodes. Laser Components is also recognized as one of Europe's leading high power laser coating manufacturers and supplies the spectroscopic community in industry and research labs for their infrared spectroscopic needs.



New Avalanche Photodiodes made by LASER COMPONENTS perfectly complement the existing range of pulsed lasers.

Products include high power laser optics, the SPECDILAS[®] line of spectroscopic grade NIR lasers including DFB's and QCL's, FLEXPOINT[®] laser diode module series. Contact: Sven Schreiber, Export Manager, s.schreiber@lasercomponents.com.

#1209

#314

Photonics Europe Exhibitor Directory

Laser Focus World

iu iu

SPIE Corporate Member

PennWell Publishing, 98 Spit Brook Rd, Nashua, NH, 03062-2810 603/891-0123; fax 603/891-0574 www.laserfocusworld.com

Laser Focus World is a monthly magazine for engineers, researchers, scientists and technical professionals providing comprehensive global coverage of optoelectronic technologies, applications and markets. The magazine reports on and analyzes the latest developments and significant trends in both technology and business in the worldwide optoelectronics and photonics industry. Contact: Christine Shaw, Vice President/Group Publisher, christines@pennwell.com.

LEDIL

#212

#307

#209

Tehdaskatu 13, Salo, Finland, 24100 358 40 833 8330; fax 358 2 733 8001 ledil@ledil.com; www.ledil.com

New Product: Ultra-High Accuracy Plastic Lenses for Semiconductors, including LEDs, lasers, ensors, fibers.

LEDIL designs, manufactures and sells standard and customerspecific optical elements, opto-electronic modules and complete

lighting products for a wide variety of application areas. Common nominator for all of them is the need for a sophisticated, accurate optical solution and a cost effective mass production. Core competence areas in manufacturing are: Injection molding, further processing and joining of plastics parts, assembly automation, coatings, electronics manufacturing and testing. Contact: Tomi Kuntze, tomi.kuntze@ledil.com; Kari Lehtinen. kari.lehtinen@ledil.com.



Standard & Customized Precision Plastic Lenses for Semiconductors.

Leoni Fiber Optics GmbH

Muehldamm 6, Neuhaus-Schierschmitz, Germany, 96524 49 36764 81100; fax 49 36764 81110 www.leoni-fiber-optics.com

LEONI Fiber Optics is your specialist for all fiber optic applications e.g. in local area networks, the telecommunications sector, industrial environments, sensor technology, medical or traffic engineering. Our product range includes standard multi-mode and single-mode fibers, POF, PCF and special silica fiber cables, fiber bundles, cable assemblies, connectors, assembly and measurement tools. We also offer customized cable solutions. Contact: Imke Kuester, imke.kuester@leoni.com.

Light Guide Optics Germany GmbH #511

Heerstrassen Benden 10, Rheinbach, Germany, 53359 49 2226 158516; fax 49 2226 158520 info@lgoptics.de; www.lgoptics.de

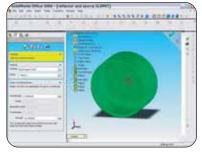
Optical fibres, cables, bundles, fused end bundles for sensoric, analytic and Laser application in industry and medical. Contact: Peter Taenzer, Sales & Marketing Manager, taenzer@lgoptics.de; Wolfgang Mielke, Sales & Marketing Manager, mielke@lgoptics.de.

Light Tec

Espace Alexandra, 359 rue St Joseph, Hyeres, France, F-83400 33 494 121 848; fax 33 494 121 849 sales@lighttec.fr; www.lighttec.fr

New Product: NEW: The TracePro Bridge for SolidWorks.

LIGHT TEC European distributor for optical design and measurements tools from Lambda Research, Optiwave, Gamma Scientific, Apogee, ESDI and offers services: Technical support, training course, consulting, source and material measurements. Contact: Yan Cornil, Manager; Ingrid Lisador, Sales Assistant.



Mechanically accurate models with complex geometry are built in SolidWorks.

LightConversion

Sauletekio 10, Vilnius, LT-, Lithuania, 10223 +3705 2491830; fax +3705 2698723 Ic@lightcon.com; www.lightcon.com

New Product: Femtosecond DPSSL system "PHAROS" for research and industry: 4W, 100 kHz, 180 fs. OPA: 620-2600 nm +harmonics, ~100fs.

Light Conversion is the world leading producer of continuously wavelength tunable ultrafast light sources based on TOPAS series of optical parametric amplifiers and frequency mixers. Since then over 350 of "TOPAS" and "TOPAS-white" systems, many of those tailored to meet very specific customer requirements, have been installed worldwide. Contact: Linas Giniunas, R&D Physicist, linas.giniunas@ft.vu.lt; Algirdas Juozapavicius, Director, algis@lightcon.com.

LightTrans GmbH

#311

Wildenbruchstr 15, Jena, Germany, 07745 49 36 41 66 43 53; fax 49 36 41 66 43 54 service@lighttrans.com; www.lighttrans.com

New Product: DWDM components, lasers and test instruments from Santec, the leading DWDM solution supplier.

Santec's latest components include both tunable devices and integrated solutions enabling compact reconfigurable systems to be realized at low cost. The tunable laser provides over 10dBm of power over a full 40nm range, the tunable filter allows channel selection from a 100GHz grid, with high isolation over a 35nm tuning range. Contact: Tsutomu Azuma, Sales; Soichi Kita, Sales.

VirtualLab[™] optics software provides you with unique flexibility in optical modelling including micro and diffractive optics.



#211

LINOS Photonics France

#303

90 Avenue de Lanessan, Champagne Au Mont d'Or, France, F-69410 33 4 72 52 04 20; fax 33 4 72 53 92 96 info-fr@linos.com; www.linos.com

As a combination of SPINDLER & HOYER, GSÄNGER and

RODENSTOCK Präzisionsoptik, LINOS is a manufacturer of sophisticated optical components and systems. LINOS is a reliable partner for customized solutions: Analysis, development, prototyping and serial production. In addition, LINOS supplies more than 4000 different standard components (catalog) for high-end solutions in industry and public research institutions.



Optical Fibers, Couplers, & Collimators for LASER measurement applications.

LOT-Oriel

#1002

#510

4 Allee Des Garays, Palaiseau, France, F-91120 33 1 69 19 49 49; fax 33 1 69 19 49 30 contact@lot-oriel.fr; www.lot-oriel.fr

LOT-ORIEL is a European wide distribution group. Specialized originally in optics and optical systems, new fields of activities are continuously added to the sales program. Today, the surface analysis group is becoming an important part for all of the different subsidiaries. LOT's expertise and quality support is recognized in many fields such as infrared thermography, interferometry, spectroscopic ellipsometry, Atomic Force Microscopy and multispectral imagery.

Lumera Laser GmbH

SPIE Corporate Member

Opelstr 10, Kaiserslautern, Germany, 67661 49 6301 703 180: fax 49 6301 703 189 info@lumera-laser.com: www.lumera-laser.com

New Product: SUPER-RAPID picosecond laser for micromachining with up to 8 W of output power, UV - IR.

LUMERA LASER develops and manufactures IR, VIS and UV ultrashort pulse lasers for industrial and scientific applications: Pulse energies up to 0.5 mJ, repetition rates up to 500 kHz and average power up to 10 W TEMoo. An application lab with extensive experience is available. Custom systems can be developed. Contact: Bernhard Klimt, Director Marketing & Sales, klimt@lumera-laser.de.



RAPID picosecond laser for high quality micromachining with pulses on demand.

Lyncée Tec SA

PSE-A Ecoblens, Lausanne, Switzerland, 1015 41 21 693 02 20; fax 41 21 693 02 29 info@lynceetec.com; www.lynceetec.com

New Product: New generation of real time digital holography microscopes for nano 3d observation called dhm-1000.

Lyncee Tec SA (Lausanne, Switzerland) designs, manufactures and sells digital holography microscopes working in reflection or transmission mode which combines simultaneously real-time, non-contact and non-invasive 3D observations with nanometric resolution unaffected by the surrounding environments. The DHM equipment used in conjunction with our proprietary software is used in Scientific Research and QC in production for applications in material and life sciences.



The R1000 digital holographic microscope in reflection configuration by LvnceeTec.

M.C.S.E.

38 rue de la Station, Franconville, France, F-95130 33 1 3415 2822; fax 33 1 34 15 28 86 mcse@club-internet.fr

New Product: Plasma Process Technology. ICP Etcher SI 500 and ICPECVD SI 500D.

MCSE is offering optical materials under the shape of blanked and finished parts. Our business in plasma allows us to offer etching and CVD systems to get nanostructures. Contact: Daniel Lequien, Manager, contact@mcse.fr.

NEW Film Thickness Probe Reflectomer; Very accurate measurements of reflectance by the use of a special microscope for tilt and height adjustment of sample.

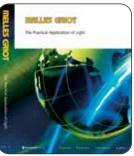
Melles Griot Industrie

12 avenue Jean Bart, Voisins Le Bretonneux, France, F-78960 33 1 30 12 06 80; fax 33 1 30 60 08 51

info.france@mellesgriot.com; www.mellesgriot.com

New Product: Diode pumped solid state laser 473, 488, 532, 561 nm New Power and Energy meter.

Melles Griot designs, manufactures, sources, distributes and services photonics related components and subsystems. We offer flexible solutions to the global marketplace that serve to create light, control its efficient use and reliably hold or position photonics devices. We serve Original Equipment Manufacturers, Institutional Research, Product **Development and Capital Equipment** applications. Contact: Daniel Hinz, Application Engineer, applications.europe@mellesgriot.com.



Please find the X catalog, the most complete in the photonics industry.



#702

#1302

Miass Machinebuilding Plant

#909

1 Turgoyak Rd, Miass, Russia, 456320 +7 3513 298 159; fax +7 3513 298 222 ved@mashzavod.miass.chel.su; www.mmz.ru

New Product: High pure silica glass with: Low OH content < 0,1 p.p.m, low bubble and inclusions content.

Miass Machinebuilding plant is a public enterprise with a wide range of products. The enterprise has high-precision equipment facilities to perform techological operations of any degree of complexity. The Plant has launched production of high pure silica glass KS-4V having few defects such as bubbles, inclusions, hydroxyl groups as well as impurities. KS-4V is applied to produce optical goods with high spectrum of transmission for high-precision devices. Contact: Victor Kekhter, Director of the Silica Glass Production,

ved@mashzavod.miass.chel.su; Igor Varbansky, Deputy Manager of Miass Machinebuilding Plant, ved@mashzavod.miass.chel.su.

MICOS GmbH

#1100

Freiburger Str 30, Eschbach, Germany, 79427 49 7634 5057 230; fax 49 7634 5057 393 info@micos-online.com; www.micos.ws

New Product: MICOS presents laser kits, a new micropusher, airbearing rotary, elevation, vacuum and piezo stages.

MICOS presents educational laser kits, a new micropusher MP15, an airbearing rotary stage, a new elevation stage ES100, vacuum stages and piezo stages as well as a micropositioning device with 6 degrees of freedom like a hexapod. Applications in semiconductor industry, lasertechnology, biotechnology, sensors and Space industry. Contact: Wolfgang Meienburg, wolfgang.meienburg@micosonline.com.



New Elevation stage for sub-um adjustment with scale option.

#1308

Microcertec

47 Allee du Clos des Charmes, Collegiens, France, 77615 +33 1 60 06 63 64; fax +33 1 60 05 32 51 info@microcertec.com; www.microcertec.com

New Product: Ceramic 3-D interconnection circuit boards.

Microcertec is specialized in manufacturing custom-made ceramic components by using precision grinding, high-precision ultrasonic machining, laser micromachining and PACVD thinfilm metallising techniques. Typical products for the photonics industry are: Reflectors for pumping chambers, insulators for gas lasers, heat sinks for high-power laser diodes, chip carriers for infra-red detectors, structural parts for switches. Contact: Alain Charbonnier, Managing Director, alain.charbonnier@microcertec.com; Francois Irlinger, Chairman, francois.irlinger@microcertec.com.

Multiwave Photonics

Ceramic 3-D interconnection chip carriers offer optimised packaging solutions for optoelectronics & microelectronics devices.

#904

Rua Eng Frederico Ulrich 2650, Moreira da Maia, 4470-605, Portugal 351 22 9408260; fax 351 22 9408261 jsalcedo@multiwavephotonics.com

Nalux Co., Ltd.

#906

Yamazaki 2-1-7, Shimamaoto-cho, Mishima-gun, Osaka, Japan, 618-0001 81 75 963 3456; fax 81 75 963 3450 sales-osaka@nalux.co.jp; www.nalux.co.jp

New Product: Glass free-form, Glass-Plastic hybrid microlens, Plastic optics resistant to short-wavelength laser.

Nalux mainly offers the following plastic optics: Collimator and diffractive grating for pickup optical systems, Free-form surface for laserbeam printers, Roof prism and other prisms for cameras, Microlens array for various applications and other optics for imaging and collective optical systems. Contact: Seiichiro Ktagawa, President, sei-kitagawa@nalux.co.jp; John Verleyen, EU Liaison, john.verleyen@nalux.co.jp.

Nanotechnology in Northern Europe Congress & Exhibition #1602

Spinverse Consulting, Teknlikantie 14, Espoo, Finland, 02150 358 40 589 6263; fax 358 9 2517 7888 info@nano.fi: www.nano.fi

New Product: NTNE2006 Congress and Exhibition, 16-18 May 2006, Helsinki, Finland.

Nanotechnology in Nothern Europe 2006, Congress & Exhibition, 16-18 May 2006, Helsinki, Finland. Largest nanotechnology event in Northern Europe! NTNE2006 combines latest research to industrial developments and gives you the opportunity to meet 400-500 scientists, industry experts, investors and up to 100 innovative companies. NTNE2006 exhibition is the key venue for nanotech

instrumentation and meeting leading Nordic nanotechnology research centers. Website: www.nano.fi. Contact: Laura Juvonen, NTNE2006 Coordinator,

Nanotechnology

16-18 May 2006, Helsinki, Finland

Nanotechnology in Northern Europe 2006, Congress & Exhibition, 16-18 May 2006, Helsinki, Finland, www.nano.fi.

laura.juvonen@spinverse.com.

Nature Publishing Group

#1102

The Macmillan Bldg, 4 Crinan St, London, United Kingdom, N1 9XW fax 44 20 7843 4998 www.nature.com

New Product: Three new journals: Nature Physics, Nature Photonics, Nature Nanotechnology.

The Nature Publishing Group (NPG) portfolio combines the continued excellence of Nature and its associated research and review journals.

Visit the NPG stand to find out more about two new journals, Nature Photonics and Nature Nanotechnology, including submission details and launch subscription prices. Also, pick up your free sample copy of Nature Physics and Nature Materials, place a subscription at reduced conference rates, and find out about advertising in any of our titles. Contact: subscriptions@nature.com.



New journals from Nature Publishing Group.

Newport Spectra-Physics

#300

1 Rue Jules Guesde, 2I Bois de L'Epine, Evry, Cedex, France, BP189 33 160916868; fax 33 160916869

france@newport.fr.com; www.newport.com

New Product: 1935/2835 Series Single and Dual-Channel **Optical Meters and Detectors.**

Newport Spectra-Physics is a leading global supplier of solution to make, manage a measure light to the semiconductor, communications. electronics, research and life and health sciences markets, Contact; Dalila Ait Amir. dalila.aitamir@newport.com; Claude Minard, claude.minard@newport.com.



Newport debuts High-Performance Optical Meter that Delivers Best-inclass Performance and Versatility.

Nozomi Photonics

#402

SPIE Corporate

174 Component Dr, San Jose, CA, 95131-1119 408/321-9872; fax 408/321-9307 info@nozomiphotonics.com; www.nozomiphotonics.com

New Product: 1x2, 1x4 and 2x2-array ultra fast optical switch subsystems.

World's fastest and most power-efficient optical switches subsystems are shown at Photonics Europe. The Nozomi Photonics' ultra highspeed optical switch subsystems feature rise and fall time of less than 6 ns, low power consumption and small form factor. Contact: Jerome Prieur, Director, jprieur@nozomiphotonics.com.

NP Photonics

#304

#1005

9030 S Rita Rd Ste 120, Tucson, AZ, 85747 520/799-7400; fax 520/799-7403 info@npphotonics.com; www.npphotonics.com

NP Photonics is producing innovative glass and fiber to design and manufacture a new class of advanced optical light sources. The

products are based on proprietary glass, fiber and intelligent controls. NP Photonics single frequency fiber lasers are optimized for low phase & intensity noise, along with broadband ASEs optimized for high power & bandwidth. These products are positioned for sensing applications that utilize optical fiber, R&D/ scientific markets and biomedical OCT applications. Contact: Philippe Brak. Vice President of Sales and Marketing, pbrak@npphotonics.com.



Scorpion Fiber Laser: Low-Noise, Single-Frequency, >125 mW, <3 kHz Linewidth for Fiber Sensing and LIDAR.

NT MDT Co.

Arnhemseweg 34D, Apeldoorn, Netherlands, NL-7331 BL 31 55 540 25 65; fax 31 55 540 25 66 mail@ntinstruments.com: www.ntinstruments.com

New Product: NTEGRA Tomo: 3D reconstruction of inner object structures.

NTI is the EU representation of NT-MDT, which is established in Zelenograd, close to Moscow. NTI sells a broad spectrum of Scanning Probe Microscopes and accessories. The SPM's are NT-MDT branded and cover a large number of applications. There are models for biomedical applications, for the research of magnetic materials, for the semiconductor and CD industry, for chemistry and high throughput experimentation and many more. Contact: Mathieu Charestan, charestan@ntinstruments.com; A. Benjamins, benjamins@ntinstruments.com.

22

An SPIE Europe Event • spieeurope@spieeurope.org • Tel: +44 29 2089 4747 • spie.org/events/epeexhibit

#EPIV2

commercial reality. The OLLA consortium develops new high-efficient materials. research the most stable device architectures and finds cost-effective processing technologies. See some OLED examples on our today! www.ollaproject.org. Contact: Peter Visser, visser@ollaproject.org; Dietrich Bertram, bertram@ollaproject.org.



A research demonstrator of a white OLED lighting panel (source NOVALED / OLLA project).

Nuvonyx Europe SA

#815

Route Departementale 128, BP 46, Orsay Cedex, France, 91401 33 1 69 33 06 61; fax 33 1 69 33 06 62 alain.grelet@nuvonyx-eu.com; www.nuvonyx.com

New Product: Optical power of QCW stacks is increased with diode bars over 150W QCW. Design is qualified to operate under highly severe environments.

NUVONYX Europe (formerly Thales Laser Diodes) with NUVONYX Inc. is a leading manufacturer of highly reliable Power Laser Diodes. A whole range products: CW diode bars CW stacks and sources, fiber coupled diodes and systems, high temperature QCW Stacks are manufactured for pumping solid state lasers or direct use. Products are designed for Aerospace, Defense, Space, Industrial Manufacturing and Medical Applications. Contact: Alain GRELET, Product Sales Manager, alain.grelet@nuvonyx-eu.com; Gérard VOLLUET, Marketing and Sales Manager, gerard.volluet@nuvonyxeu.com.

Ocean Optics B.V.

#500

Geograaf 24, Duiven, The Netherlands, NL-6921 EW 31 26 319 0500; fax 31 26 319 0505 info@oceanopticsbv.com; www.oceanoptics.com

New Product: USB4000: Our next-generation spectrometer, with a 3648-element Toshiba linear CCD array.

Ocean Optics is a diversified electro-optics company and specializes in optical sensing, optical networking, display optics and biophotonics technologies. Our expertise in electro-optics, spectroscopy, optical fibers and precision optics offers great value to researchers and OEMs seeking a flexible, full-service supplier. With more than 60,000 optical sensing systems sold, Ocean Optics offers applications know-how that few manufacturers can match. Contact: Roland Kuijvenhoven,



Ocean Optics introduces the new USB4000, our next generation miniature spectrometer.

roland.kuijvenhoven@oceanoptics.com; Kees van de Steeg, keesvds@oceanoptics.com.

OFS Fitel Specialty Photonics Div. #316

55 Darling Dr, PO Box 1260, Avon, CT, 06001

OLLA Project

Philipsstrasse 8 (PVI.538), Aachen, Germany, 52068 +49 241 539 3161; fax +49 241 539 2399 visser@olla-project.org; www.olla-project.org

New Product: Organic Leds (OLEDs) for Lighting Applications.

The European Project OLLA targets the development of Organic Leds (OLEDs) for Lighting Applications. OLEDs are novel flat highbrightness solid-state lighting sources, which are also extremely energy efficient. In-depth research is required to make OLEDs a

Photonics Europe Exhibitor Directory

Omega Optical, Inc.

SPIE Corporate

Delta Campus, Omega Drive, Brattleboro, VT, 05301 802/254-2690; fax 802/254-3937

sales@omegafilters.com; www.omegafilters.com

Omega Optical has wide range of capabilities & product lines in the thin-film industry. We manufacture filters from UV to the near IR, including bandpass, longpass, shortpass, rejection band, neutral density, laser line, analytical, astronomy & fluorescence filters. Our custom and standard

Optical.

Precision optical filters for OEM

instruments manufactured by Omega

OPERA

OPERA

OPERA 2015 implements

Framework Programme-7

key strategies for Optics

and Photonics for

of the Furopean

Commission.

in Research Area

filters are being used as a critical component in the optical systems of a wide variety of instrumentation applications including life science, astronomy/ aerospace,

photolithography and many others. Contact: Ruth Gorham-Houle, Vice President of Business Development, rgorham@omegafilters.com; Kirk Winchester. OEM International Sales.

kwinchester@omegafilters.com.

OPERA-2015

17 Rue Hamelin, Paris, France, F-75016 33 1 45 05 72 63; fax 33 1 45 05 72 63 info@epic-assoc.com; http://www.opera2015.org/home.asp

New Product: OPERA-2015 is informing the photonics community about the Photonics Technology Platform and FP-7.

OPERA-2015 is a coordination action sponsored by the European Commission and we are preparing the transition for photonics R&D from FP-6 to FP-7. The OPERA-2015 action is organizing Symposia and Workshops throughout Europe to encourage the broadest possible participation in the FP-7 photonics R&D programs. Attend the OPERA-2015 Symposium at Photonics Europe! Our next workshop is happening 12 to 14 October in Wroclaw, Poland. For further details, please contact EPIC (info@epicassoc.com). Contact: Thomas Pearsall, General Secretary, pearsall@epic-assoc.com.

OpTIC Technium

St Asaph Business Park, St Asaph Denbighshire, United Kingdom, LL17 0JD 44 1745 535 100; fax 44 1745 535 101 www.optictechnium.com

OpTIC is a national resource in the UK for the development of optics, opto-electronics technology and businesses. The major thrust is to exploit near market technology and is centered on different areas of expertise which include: Ultra-precision surfaces for the production of large area optics, optical polymers to address new commercial opportunities, holography based products and thin film technology using MOCVD to generate new opto-electronics materials. Contact: Ian Maxwell, Marketing Manager, ian.maxwell@optictechnium.com.

OpticsPages

Old Village Hall, The Street, Effingham Surrey, United Kingdom, KT24 5JS 44 1372 750522 ; fax 44 1372 750666 info@opticspages.com; www.opticspages.com

Optics Pages is an on-line buyers guide for the optics & photonics community. It has a unique intuitive structure to enable you to quickly search for the item you require and obtain useful search results. Visit our Stand to see how it works for yourself. Contact: Barbi Neat, Sales & Marketing.

Optima Research Ltd.

8 Riverside Business Park, Stoney Common Rd, Stansted, United Kingdom, CM24 8PL

info@optima-research.com; www.optima-research.com

New Product: We will be demonstrating the latest version of ZEMAX packed with new features.

Optima Research is the European supplier of the ZEMAX optical design software. ZEMAX is a comprehensive optical design software which helps you design classical optical systems, illumination systems, physical optics and more. ZEMAX is used by thousands of professional optical

designers in both industry and academia world wide. Optima Research provides comprehensive technical support and training in the use of ZEMAX. We offer both public courses in the UK and private training courses. Contact: Jenny Warwick, General Manager; Neil Barrett, Optical Engineer.



A lens mount built in ZEMAX by subtracting several cylindrical volumes from a rectangular volume.

Opto & Laser Europe

IOP Publishing Ltd., Dirac House Temple Back, Bristol,

United Kingdom, BSI 6BE 44 117 929 7481; fax 44 117 930 1178 ole@iop.org; www.optics.org

Optics & Laser Europe is the leading European magazine for the photonics industry. Covering the global photonics industry, including opinion and analysis on the latest research and technologies, it provides its readers with news, R&D, features, Product Guides, extensive show previews and the guarterly EOS newsletter. To subscribe free of charge to Optics & Laser Europe complete the online form at http://optics.org/subscribe/ole. Contact: Geraldine Pounsford, Publisher, geraldine.pounsford@iop.org; Adrian Chance, Advertising Sales Manager, adrian.chance@iop.org.

#506

#111

#1201

#310

#807

Opton Laser International

#1303

Parc Club Orsay Université, 29 Rue Jean Rostand, Orsay Cedex, France, F-91893 33 1 69 41 04 05; fax 33 1 69 41 32 90 ventes@optonlaser.com; www.optonlaser.com

New Product: 1550nm 100fs 250mW 100MHz fs fiber laser. supercontinuum, SHG. 355nm and 561nm cw microchip lasers.

Opton Laser is a leading supplier in photonics on the European market. The company offers a rich range of high quality products from the most innovative worldwide manufacturers. We are actively presents on the following markets: Scientific - Industrial -Biophotonics - Military -Aerospace -



1550nm, 100fs, 250mW, 100MHz femtoseconde fiber laser, Telecommunications supercontinuum, SHG. Environment, Opton

Laser is based in Orsay, the heart of the most important scientific community in Europe. We have an international reputation as an exigent and professional partner. Contact: Vincent Aubertin, vincent.aubertin@optonlaser.com; Guillaume Delpont, guillaume.delpont@optonlaser.com.

Optronis GmbH

Honsellstr 8, Kehl, Germany, 77694 49 7851 91260; fax 49 7851 91260 10 info@optronis.com; www.optronis.com

New Product: CamRecord 800 and NEW Streak camera system.

Optronis is a manufacturer of Streak cameras and high speed cameras with experience since 1986. In 2006 we present many new products like the new Streak Camera SC or the new CamRecord 800 which supplements the high speed series from Optronis. Contact: Dirk Schoch, Diploma in Engineering, schoch@optronis.com.



The CamRecord High-Speed Cameras offer frame rates of up to 1000 fps at MegaPixel resolution.

OWIS GmbH

Im Gaisgraben 7, Staufen, Germany, 79219 49 7633 9504-13; fax 49 7633 9504-44 info@owis-staufen.de; www.owis-staufen.de

New Product: Complete piezo-driven rotary and linear nanopositioning systems - for manual operation; and measuring system for closed-loop operation.

OWIS has been developing, manufacturing and distributing components for the optical beam handling as well as highly precise positioning systems for over 25 years. OWIS products are used for R&D purposes and for industrial applications in many sectors. "Made in Germany" is still the company's maxim. An own development and ultramodern manufacturing make OWIS to the perfect system partner in connecting macro, micro and nano worlds. This ideal combination enables short-term adaptations of our catalogue products - up to customized solutions. Quality and precision are our top priority. Contact: Hans Jürgen Kiefer, Dipl.-Ing., hjk@owisstaufen.de; Andreas Wetzel, Dr., aw@owis-staufen.de.

OZ Optics Ltd.

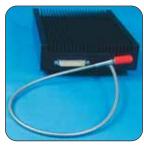
SPIE Corporate

219 Westbrook Rd, Ottawa, ON, Canada, K0A 1L0 613/831-0981; fax 613/836-5089 sales@ozoptics.com; www.ozoptics.com

New Product: High Power Fiber Optic Patchcords.

Turnkey IR/VIS Stable Sources, Laser to Fiber Delivery Systems, Laser to Fiber Couplers with Adjustable Focus, Fiber Lasers,

Collimators/Focusers, Laser Diode and Photodiode to Fiber Couplers, Educational Kits, U-Brackets, Vacuum/Hermetic Feedthroughs, Optical Delay Lines, Polarization Maintaining Patchcords/Miniature Connectors, Directional Taps/Power Monitors, RGB Combiners, Polarization Rotators/Controllers/ Analyzers, Polarizers, Termination Kits, Fiber Isolators, Faraday Mirrors/Rotators. Contact: Omur Sezerman, President & Chief Executive Officer; Jamie Hackett, Marketing Manager.



Pulsed Fiber Sources With Multi-Kilowatt Output.

#514

PCO AG

Donaupark 11, Kelheim, Germany, 93309 49 9441 2005 0; fax 49 9441 2005 20 info@pco.de; www.pco.de

In 1987, PCO AG was founded with the objective to develop and to produce specialized fast

and sensitive video camera systems, mainly for scientific applications. Meanwhile the product range of PCO cameras covers digital camera systems with high dynamic range, high resolution, high speed and low noise, which are sold in the scientific and industrial market all over the world.



pco.1200 hs - CMOS 10bit camera system suitable for highspeed recording in science and industry.

PhoeniX Software

PO Box 545, Enschede, Netherlands, 7500 AM +31 53 4836460; fax +31 53 4337415 info@phoenixbv.com; www.phoenixbv.com

PhoeniX develops software for Micro System Technology to provide the bridge between the design team and the cleanroom environment. Re-usability, validation and quality improvement of information are the key factors for efficient product development. PhoeniX software integrates the production and design process to further reduce the design/production cycle and introduces unique software tools that facilitate First Time Right design (FTR) for various application areas, including Integrated Optics. Contact: Niels Olij, Chief Operating Officer, niels.olij@phoenixbv.com; Arjen Bakker, Chief Technology Officer, arjen.bakker@phoenixbv.com.

sales@polymicro.com; www.polymicro.com

PHOREMOST

Lee Maltings, Prospect Row, Cork Ireland

#1106

#EPIV4

An SPIE Europe Event • spieeurope@spieeurope.org • Tel: +44 29 2089 4747 • spie.org/events/epeexhibit 24

#508

#301

***** Lanyard Sponsor **Photon Design**

SPIE Corporate Member

34 Leopold St. Oxford, United Kinadom, OX4 1TW 44 1865 324990; fax 44 1865 324 991 info@photond.com; www.photond.com

New Product: CrystalWave-V4 photonic crystal CAD now with clustering, nonlinearity and anisotropy and more.

Photon Design, founded in 1992, provides a wide range of photonics modelling software for integrated and fibre-based component design. Products include FIMMPROP-our revolutionary bi-directional optical propagation tool, FIMMWAVE-a 3D mode solver, CrystalWave-a complete photonic crystal simulator, OmniSim-a general purpose 3D FDTD simulator and CLADISS-2D- a powerful laserdiode/TWA model. Contact: Dominic Gallagher; Stephen Day.



OmniSim frequency domain simulation of a coiled waveguide.

Photonic Cleaning Technologies

#902

#1003

PO Box 435, Platteville, WI, 53818 608/467-5396; fax 608/467-5597 sales@photoniccleaning.com; www.photoniccleaning.com

New Product: Easy to use First Contact cleans, protects precision surfaces, leaves them optically clean.

First Contact is designed to remove dust, oils and contaminants from

First Contact™ Cleans and

Diffraction Gratings-Wafers-Molds-

Protects; Lenses-Mirrors-

precision optics. It does that and a lot more. First Contact cleans diffraction gratings, is valuable in nanotech research, cleans optics and first surface mirrors without damaging coatings. It cleans and protects precision surfaces in handling, storage, assembly and shipping operations. Removes completely, leaves surfaces optically clean. Contact: Phil Jackson, President,

jacksonp@photoniccleaning.com.

Photonics Cluster (UK)



Faraday Wharf, Holt St Aston Business Science Park, Birmingham, United Kingdom, B7 4BB 44 121 260 6020; fax 44 121 260 6450 info@photonicscluster-uk.org; www.photonicscluster-uk.org

members. Contact: Hannah Gripton; Glenn Barrowman.

Photonics Cluster (UK) is the fastest growing business network dedicated to supporting the photonics industry in the UK. The overall aim of the Cluster is to establish a dynamic hub of activity within the fully integrated supply chain of researchers, suppliers, manufacturers and sales distributors operating freely for the increased profitability of the sector and increased knowledge and wealth to the individual

Crystals.

Photonics Spectra /EuroPhotonics #509

SPIE Corporate

Berkshire Common, 2 South St, Pittsfield, MA, 01201-6109 413/499-0514; fax 413/442-3180 photonics@laurin.com: www.photonics.com

Photonics Spectra is the leading photonics magazine serving industries that use photonic technologies. Published monthly, it is distributed free to those who use or apply photonics. EuroPhotonics magazine provides accurate, readable and upto-the-minute information about photonic products available in the European marketplace. Published bimonthly, it is distributed free to readers in Europe and Israel who use or apply photonics. Contact: Tuckerman Moss, Group Editorial Director, pseditorial@laurin.com; Penny Pretty, Regional Manager, advertising@photonicsgroup.com.



Photonics Spectra is the leading photonics magazine serving industries that use photonic technology.

Photonis-DEP

#512

Dwazziewegen 2, Roden, Netherlands, NL-9300 AB 31 5050 18808; fax 31 5050 11456 sales@photonis-dep.com; www.photonis-dep.com

Photonis-DEP is the leading manufacturer of high performance Image Intensifiers, Low Light-Level Detectors, Photon Counters, Intensified CCD's (CMOS) and specific products. Sustained and continuing product development at Photonis-DEP results in products with unprecedented performance for wide ranges of analytical, industrial, scientific, surveillance and defense applications. Contact: Léon Bosch, International Sales Manager, I.bosch@photonisdep.com, phone: 31-50-5018808.

Physik Instrumente (PI) GmbH & Co. #404

Auf der Römerstr 1, Karlsruhe, MA, Germany, 76228 49 721 4846 0; fax 49 721 4846 299

info@pi.ws; www.pi.ws

New Product: The F-206 HexAlign™ 6D-System combines high resolution and accuracy with rapid response.

PI is a global market leader developing and manufacturing products in the field of micro- and nanopositioning technology for more than 35 years. PI is ISO9001 certified and has subsidiaries all over the world. Contact: Pierre Reinheimer; Frank Gehbauer.

Piezosystem Jena, Inc.

SPIE Corporate Member

Pruessingstrasse 27, Jena, D, Deutschland, 07745 508/634-6688; fax 508/634-6868

sales@piezojena.com; www.piezojena.com

New Product: nanoSXY piezostage: Fastest precision positioning; 400µm in XY; ultra flat design; sub-nm resolution

Piezosystem jena is a leading manufacturer of piezo based nanopositioning equipment for fiber alignment, beam steering, scanning, piezo actuators for test and measurement, mask alignment, nanometrology, microscopy, fiber optical switches and optical multiplexer. Contact: Audrey Roudil, Sales Manager France, audrey.roudil@trioptics.fr; Elmar Elbinger, Sales Manager, info@piezojena.com.



The F-206 HexAlign™ 6-Axis Precision Alignment System combines high resolution and accuracy with rapid responses.

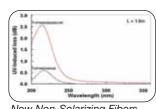
Polymicro Technologies LLC

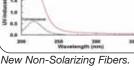
#306

18019 N 25th Ave, Phoenix, AZ, 85023-1200 602/375-4100; fax 602/375-4110 sales@polymicro.com; www.polymicro.com

Polymicro manufactures multimode, step-index fused silica optical fibers with polyimide, acrylate, silicone and aluminum buffers; solarization resistant optical fibers; hollow silica waveguides; fiber

optic cables and assemblies: high strength, high temperature flexible fused silica capillaries; square capillaries; light guiding capillaries; custom precision silica and quartz rod and tubing pieces; custom shaped rod and tubing; multilumen tubing; telecom ferrules and sleeves. Contact: Gary Stolte, Vice President, Sales & Marketing, sales@polymicro.com.





Pyser-SGI Ltd.

Fircroft Way, Edenbridge Kent, United Kingdom, TN8 6HA 44 1732 864111; fax 44 1732 865544 www.pyser-sgi.com

New Product: Digital microscope with advanced imaging s'ware, including image tiling & multi-focus image assembly.

Pyser-SGI will be demonstrating new digital microscopes with sophisticated imaging software. Also being shown will be the "Inspecta" product range, which includes modular microscope systems & components, magnifiers, portable microscopes, measuring systems & video inspection systems. Additionally there will be a wide range of micro-imaged products including reticles, stage micrometers, calibration standards, resolution charts, gratings, targets, precision apertures & transmission gratings. Contact: Neil Blackford, Divisional Head, sales@pyser-sgi.com.

Quantel

#507

#407

BP 23, 17 ave de l Atlantique, Les Ulis, France, F-91941 33 1 6929 1700; fax 33 1 6929 1729 quantel@quantel.fr; www.quantel.fr

New Product: New Centurion 100 Hz DPSSL, 45 mJ at 1064 nm, extremely compact package, completely air-cooled.

QUANTEL manufactures modelocked and/or Qswitched Nd:YAG laser systems, YAG pumped tunable dye lasers and solid-state laser systems; regenerative amplifiers; glass systems and associated components. Contact: Philippe Aubourg, Sales Manager.



BRIO by Quantel - The best peak power / footprint ratio; 120mJ / 5ns / 23x8cm².

Raicol Crystals Ltd.

#502

Industrial Zone, 15 Giron St, Yehud, Israel, IL-56217 972 3 936 7412; fax 972 3 906 8969 info@raicol.com; www.raicol.com

Raicol manufactures nonlinear optical crystals, including KTP, HGTR KTP, RTP and PPKTP. Raicol's newest products are the RTP electrooptic Q-switch operating at 1064 nm, 2000 nm and 2940 nm for highpower high-repetition rate applications, the monolithic KTP OPO and Barium Nitrate crystals. The patented technology of PPKTP fabrication makes it possible to produce elements for high efficiency applications in wide wavelength range from visible to mid-infrared. Raicol supplies Cr:YAG, BBO and LBO. Contact: Isaac Hazony, International Projects, info@raicol.com.

Resolve Optics Ltd.

#401

#1412

Unit 3 Asheridge Business Ctr, Asheridge Road, Chesham Bucks, United Kingdom, HP5 2PT 44 1494 777 107; fax 44 1494 775 201 markpontin@resolveoptics.com

Resolve Optics Ltd has for over 20 years designed, developed and manufactured OEM quantity special optical lenses for small and large high technology businesses. Our customers have benefited from our novel and economic optical solutions. High technology markets. Contact: Mark Pontin, Sales Manager, markpontin@resolveoptics.com.

Rhenaphotonics Alsace

Parc d'Innovation - ENSPS, Boulevard Sebastien Brant BP 10413, Illkirch, 67412, France +33 3 90 24 46 38; fax +33 3 90 24 46 50 vparasote@rhenaphotonics.com

Alsace Optics and Photonics Cluster. Rhenaphotonics Alsace is a non-profit organization created in 2003 by the actors of optics and photonics in Alsace, a French region located on the border with Germany and Switzerland. It contributes to the economic development of the area by supporting the relations between the research laboratories and the Alsatian companies eager to benefit from these technologies.

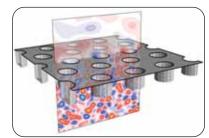
****** **Registration Insert Sponsor RSoft Design Group**

#516

200 Executive Blvd, Ossining, NY, 10562-2560 914/923-2164: fax 914/923-2169 info@rsoftdesign.com; www.rsoftdesign.com

New Product: FemSim[™] is a generalized mode solver based on the Finite Element Method (FEM).

RSoft is the worldwide leader in photonics design automation software and serves several industries including optical communication. optoelectronics and semiconductor manufacturing. Within optical communications, RSoft is the only company to provide a full range of design, optimization and planning tools. RSoft also provides award-winning design tools for



LED Structure simulated with RSoft's FullWAVE software.

optoelectronics components and subsystems as well as advanced electromagnetic modeling software for optical metrology and lithography. Contact: John Horgan, General Manager, RSoft Europe, John_horgan@Rsoftdesign.com; Mehmet Bayrak, Sales Manager, RSoft US, mehmet@rsoftdesign.com.

SAES Getters S.p.A.

#124

Viale Italia 77, Lainate Milano, Italy, I-20020 39 02 931781; fax 39 0293178320 www.saesgetters.com

New Product: High Grade Nd:YAG. Premium grade Nd:YAG crystal rod with low losses and superior efficiency.

At Photonics Europe the SAES Getters Group - a 60-year expertise in material science and thermal processes, eight manufacturing plants and a worldwide-based sales & service network - displays its advanced optical crystal product line for electro-optic devices and solid-state lasers. Contact: Mario Musolino, opto@saes-group.com.

Sanko Gosei Ltd.

15 /17 Seddon Pl, Skelmersdale, United Kingdom, WN8-8EB 44 870 750 3400; fax 44 1628 781 607

martin.holland@sanko.co.uk; www.sankogosei.com

Sanko Gosei is a well established full service supplier of high quality components and systems, in various market sectors. From

aerospace to air conditioning, and automotive to precision injection moulded optical systems, our 17 facilities in 11 countries ensure we deliver consistently from both local and global perspectives. With plastic engineering at the heart of our operations, our obsession with remaining completely customer focused ensures we consistently deliver above and beyond our clients expectations.



#908

A new cost effective patented technology applies cleanable hard wearing antireflection coatings to plastic optics.

Santec Europe Ltd.

Magdalen Ctr, Robert Robinson Ave, Oxford, United Kingdom, OX4 4GA 44 1865 784960; fax 44 1865 784961 info@santec.co.uk; www.santec.com

New Product: High Performance Tunable Laser - TSL-510. High Speed Scanning Laser for OCT - HSL-2000.

Santec is an established manufacturer of fibre optic products. These include tunable lasers, tunable filters, variable attenuators, power monitors and filters for DWDM/CWDM and PON networks. Our range includes both test instruments and optical components. Although established as a supplier for the telecoms industry our products are also widely used throughout the fibre optics field and most recently in medical imaging systems using OCT (Optical Coherence Tomography) technology. Contact: David Heard, Managing Director; Simon Harris, Technical Sales Manager.

SEDI Fibres Optiques

#316

#910

ZA St Guenault, 6 Rue Jean Mermoz, Courcouronnes, France, F-91080 33 1 69 36 64 00; fax 33 1 69 36 64 19 info@sedi-fibres.com; www.sedi-fibres.com

New Product: Fiber optic hermetic feedthrough delivered with test certificate for hermeticity or pressure.

Serving the special applications fiber optic market for more than 20 years SEDI Fibres Optiques offers a unique range of optical fibers and manufacture components (connectors, couplers, WDMs, collimators, filters), as well as custom designed assemblies for applications including high temperature, high pressure, biocompatibility, radiation resistance, vacuum chambers, severe chemical environment, power lasers, UV, IR, polarization maintaining devices, etc. Contact: Martine Debouige, General Manager, aube.h@sedi-fibres.com; Hervé Aube, Technical Manager, aube.h@sedi-fibres.com.

Shimadzu France

#313

Le Promethee, 65 Avenue du General de Gaulle, Champs Sur Marne, France, 77420 +33 1 60 95 1010; fax +33 1 60 05 51 66 shimadzu@shimadzu.fr; www.shimadzu.fr

New Product: Brand new high-speed video camera up to 1 million fps with 100 frames of 312x260 capacity.

Shimadzu is a world-leading manufacturer of analytical instrumentation. Shimadzu develops and manufactures innovative products for laboratories in industry, science and governmental institutions. With our customer-oriented strategy and our high-quality service, we strive to be Europe's market leader. (chromatography, spectroscopy, environmental analysis...) Contact: Nicolas Jurczyk, Sales Engineer, nj@shimadzu.fr.

Sill Optics GmbH & Co., KG

#317

SPIE Corporate Member

Johann-Höllsritsch Str 13, Wendelstein, Germany, 90530 49 9129 9023; fax 49 9129 9023 23 info@silloptics.de; www.silloptics.com

New Product: Laser Optics, CCD Lenses, Profile-Projection-Lenses, Telecentric Lenses, OEM Optics, Illumination.

Sill Optics develops and manufactures a wide range of Telecentric lenses, Illumination Systems,

CCD-Lenses with C-mounts, either of the shelf or customized manufactured. Scanlenses for Printing, Beamexpanders, Yag Focussing Optics, Profile Projector Lenses are in the program including. Custom made Optical Systems and components for Prototypes and series. Contact: Konrad Hentschel, konrad.hentschel@silloptics.de:

markus.klahr@silloptics,de.

Markus Klahr,



Variable LED dimmer - For all condensers, lenses with coaxial surface illumination and LEDs with current consumption between 50mA and 450mA.

SIOF-Italian Society of Optics and Photonics

#411

Via Madrona del Piano 10, Sesto Fiorentino, Italy, 50019 fax 39 055 5226312 siof@ifac.cnr.it

New Product: Optics in Italy: Directory of Italian optics and photonics companies and research labs.

SIOF, established in 1991 and since 2004 Italian Branch of the European Optical Society, is a reference for all the research groups and companies operating in Italy in optics, photonics and related areas. Its activity proceeds through the organization of Workshops, Conferences, and Working Groups. It also publishes a series of Conference Proceedings (Quaderni di Ottica e Fotonica). Contact: Stefano Pelli, Secretary, SIOF.

SIOS Meßtechnik GmbH

#508

Am Vogelherd 46, Ilmenau, Germany, 98693 508/634-6868; fax 508/634-6688 sales@sios.de; www.sios.de

New Product: Laserinterferometric vibrometer for noncontacting measurements of vibrations on any surfaces.

SIOS Meßtechnik GmbH manufactures laser-interferometric measuring systems for use in nanometrology that measure lengths, angles, vibrations or other parameters with ultrahigh precision and resolution. Our product line comprises a complete range of single

and multi axes miniature interferometers, laserinterferometric vibrometers, nano positioning and nano measuring machines, stabilized HeNe Lasers and various special customized systems. Contact: Peter Grundschok, Diploma in Engineering (FH).



Laser interferometric vibrometer.

General Refreshment Sponsor

Specim Spectral Imaging Ltd. SPIE Corporate Member

Teknologiantie 60, Oulu, Finland, FIN-90570 358 8 551 4495; fax 358 8 551 4496 specim@specim.fi; www.specim.fi

SPECIM is a world class supplier of hyperspectral imaging technology. Our products are based on proprietary, innovative imaging spectrograph technology. We supply robust, high performance imaging spectrographs, ImSpectors and SpectralCameras for industrial, medical, chemical and defence applications. They provide hyperspectral solutions from UV to SWIR

(200-2500 nm). Our AISA hyperspectral imagers provide compact, high performance, low cost solutions for remote sensing from aircrafts and UAVs. Contact: Timo Hyvarinen, Managing Director, timo.hyvarinen@specim.fi; Esko Herrala, Product Manager, esko.herrala@specim.fi.

SphereOptics GmbH

Bergstrasse 36, Uhldingen, Germany, D 88690 +49 7556 9299666; fax +49556 5108 sphereoptics@t-online.de; www.sphereoptics.com



Revolutionary hyperspectral camera

remote sensing acquires hundreds of

FAST10 for process control and

spectral images.

SphereOptics LCS Series LED Characterization Systems.

Spiricon, Inc.

SPIE Corporate Member

60 W 1000 N, Logan, UT, 84341 435/753-3729; fax 435/753-5231 sales@spiricon.com; www.spiricon.com

Manufactures beam profilers & universal power/energy meters for lasers & optical devices from UV - FIR. Instrumentation provides real-

time beam profile display & numerical calculations in digital, analog bar or time graph. Products include software, frame grabbers, full spectrum cameras and portable meters with dual inputs for thermopile, pyroelectric & semiconductor probes for power/energy or temp measurements. Features: SD card for logging, USB control to LabVIEW on Windows, Mac & Linux. Contact: Juergen Reingruber, Sales Manager Europe, reingruberj@spiricon.de; Nicolas Gatinot, Sales Engineer, gatinotn@spiricon.com.

28



New Spiricon ISO based laser beam analyser with highresolution FireWire camera for pulsed and cw lasers.

SPIEWorks

PO Box 10, Bellingham WA 98227 USA +1 360 676 3290; fax +1 360 647 1445 sales@spieworks.com; www.spieworks.com

SPIEWorks was developed by SPIE-The International Society for Optical Engineering to provide career services to the international engineering and scientific communities; SPIEWorks is not another "out-of-the-box" career website, but a custom site designed to serve the optics, photonics and imaging industry. Search jobs, research companies, read advice from the experts, create email alerts, and post your resume today! Visit www.spieworks.com. Need help finding the perfect candidate? Contact Dave Baggenstos at +1 360 715 3705 or email sales@spieworks.com

Taylor & Francis

4 Park Sq, Milton Park, Abingdon Oxfordshire, NH, United Kingdom, OX14 4RN 44 207 017 6419; fax 44 207 017 6715 angela.dickinson@tandf.co.uk; www.taylorfrancisgroup.com

Taylor Hobson

Rond-Point de l'Epine des Champs, Bâtiment D, Elancourt, France, F-78990 33 1 30 68 89 30; fax 33 1 30 68 89 39 contact@taylor-hobson.fr; www.taylor-hobson.com

Taylor Hobson is an ultra-precision technology company operating at the highest levels of accuracy. We provide contact and non-contact

measurement solutions. In order to stay at the front of our field we Research & Development and have an extensive portfolio of Intellectual Property (IP). Taylor Hobson products are widely used in the development and production of next generation technologies, particularly in semiconductor, hard disk, precision optics and energy technologies.



CCI 6000 ULN : the most accurate optical 3D surface profiler.

Texas Instruments DLP Products

6550 Chase Oaks Blvd, Plano, TX, 75023 888/357-2984; fax 214/567-9977 cvick@ti.com; www.dlp.com

New Product: DMD Discovery[™] 3000 featuring the .7 XGA LVDS DMD.

DLP technology made by Texas Instruments is now available to developers to load data into the DMD and create light patterns with high update rates. Discovery products are flexible by design to facilitate exciting new products based on DLP[™] technology. Contact: Cheraina Dunn, Business Development Manager, DLP Catalog.



DMD Discovery developer kitdesigned to enable new applications of Texas Instruments' DLP Chip components.

#214 #214 Taylor Hobson is the highest levels measurement soli In order to stay at front of our field v invest heavily in

#406

#903

#606

#1306

Photonics Europe Exhibitor Directory

Thales Laser SA

Domaine de Corbeville - RD 128, BP 46, Orsay Cedex, France, F-91401 33 1 69 33 94 48; fax 33 1 69 33 06 62 thales-laser@fr.thalsegroup.com; http://www.thales-laser.com

Part of the Thales Group, Thales Laser develops and manufactures high quality Diode-Pumped-Solid-State nanosecond and femtosecond lasers (a range of Nd:YAG and Nd:YLF is proposed at different harmonics and M_ values) and custom ultrafast systems. Our customer and partners list includes high technology firms, OEM integrators for industrial or instrumentation systems and prestigious laboratories worldwide.

Thermoteknix Systems Ltd.

#1309

#1008

Teknix House, 2 Pembroke Ave, Waterbeach Cambridge, United Kingdom, CB5 9QR 44 1223 204 000; fax 44 1223 201 010 sales@thermoteknix.com; www.thermoteknix.com

New Product: MIRICLE Ultra High Performance Miniature Ruggedized Thermal Imaging Cameras: New models announced.

With over 20 years' experience as one of the industry's leading IR digital engineering provider, Thermoteknix offer solutions including microbolometer high resolution IR cores with integral micro-processor image processing, stand-alone cameras to full systems with extensive application software. Thermoteknix ultra high performance MIRICLE® miniature imaging cameras feature the highest resolution uncooled microbolometer cores in their class and include hermetically sealed space qualified models. Contact: Dick Ludwig, Sales Manager (USA), d.ludwig@thermoteknix.com, Alistair Brown, Product Manager (Imaging), a.brown@thermoteknix.com.

TOPAG Lasertechnik GmbH

#1101

Nieder-Ramstaedter-Str, 247, Darmstadt, Germany, 64285 49 6151 4259 78; fax 49 6151 4259 88 info@topag.de; www.topag.de

New Product: THz spectroscopy kit for ultrafast spectroscopy in imaging, non-destructive testing and monitoring.

TOPAG Lasertechnik supplies gas lasers (HeCd, IR-HeNe, grating tuned CO2), solid-state lasers (Nd:YAG, tunable lasers including Ti:Sapphire, OPO), THz

spectroscopy components, diode lasers, laser diode modules, spectrometers. monochromators, laser accessories, mechanical mounts and positioners. laser and nonlinear crystals and materials, optical components, infrared viewers, holographic recording material, microchannel plates and detectors. Contact: Udo Umhofer. umhofer@topag.de.



Nanosecond pulsed DPSS Nd:YAG lasers from TOPAG offer high power kHz output.

TopGaN

SPIE Corporate Member

29/37 Sokolowska, Warsaw, Poland, PL-01-142 48 22 888 0028; fax 48 22 876 0314 sales@topgan.fr.pl; www.topgan.fr.pl

New Product: 100mW, CW operated violet laser diode, ultrahigh quality free-standing HVPE substrates.

TopGaN Ltd. is the only company possessing the technology of production of dislocation free gallium nitride substrates. This technology is based on high-pressure crystal growth and was developed in Institute of High Pressure Physics "Unipress" in Poland. TopGaN offers pulse and CW operated violet laser diodes (100mW, CW) and high quality HVPE free standing crystals of GaN. Contact: Konstanty Donimirski, kdonimirski@unipress.waw.pl; Piotr Perlin, piotr@unipress.waw.pl.

TRANSLUX

#1207

#508

16 rue du Hainault, La Ferte Sous Jouarre, France, F-77260 33 1 60 22 02 12; fax 33 1 60 22 17 25 www.translux.fr

New Product: Precision optics components.

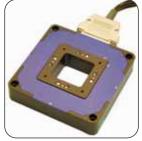
Moulded and pressed glass specialists; CNC machining 5 axis; Precision optic components; Vacuum coating for optics. Contact: Benoit Guitard, Chief Executive Officer, bguitard@translux.fr; Christophe Puisnel, Production Manager, cpuisnel@translux.fr.

Trioptics France

66 Av. Niels Bohr, Batiment CEI-BP 2132, Villeurbanne, France, F-69603 33 4 72 44 02 03; fax 33 4 72 44 05 06 info@trioptics.fr; www.trioptics.fr

Trioptics France commercialize two ranges of products: Nanopositionning and

Nanometrology: Owis: Transation stages, rotation stages, elevators, manual, motorized. Piezosystem Jena: Piezolectric stages, actuators and controllers. SIOS: Miniature interferometers for distance and vibration measurements. Optical tests instruments: Trioptics GmbH: Automatic benches for optical components surface and image caracterization. 4D Technology: Interferometers insensitive to vibration, Contact: Jean-Marc Lioutier, General Manager, jeanmarc.lioutier@trioptics.fr; Audrey Roudil, Sales Engineer, audrey.roudil@trioptics.fr.



Tritor 200-20 from Piezosystem Jena distributed by Trioptics France.

Photonics Europe Exhibitor Directory

ULIS

PO Box 27 Zone Industrielle, Veurey Voroize, France, F-38113 33 4 76 5374 70; fax 33 4 76 5374 80 ulis@ulis-ir.com; www.ulis-ir.com

New Product: New IR detecot, 640x480/25µm, full TV resolution for low cost equipment.

ULIS is a subsidiary of SOFRADIR and CEA (French Atomic Energy Agency). The mission of ULIS is the development and the production of uncooled infrared detectors indented for use in the market for low cost infrared equipments. The technology of infrared detectors used by ULIS is based on a thermometer made from amorphous silicon. ULIS products allow new applications in the fields of safety, security, medical imaging, driver vision enhancement. Contact: Jean-Luc Tissot, Business & Technical Director, jl.tissot@ulis-ir.com; Jean-Louis Lauront, Area Manager, jl.lauront@ulis-ir.com.



#1302

The new microbolometer from ULIS is made from 640x480 pixel array 25µm in full TV resolution, well adapated for low cost thermal digital equipment.

ViALUX GmbH

Reichenhainer Str 88, Chemnitz, Germany, 09126 49 371 5397 1443; fax 49 371 5397 1417 hoefling@vialux.de; www.vialux.de

New Product: ALP accessories for TI's developer kits DMD Discovery[™] 1100 and 3000.

ViALUX is a Germany based company selling optoelectronic components and optical measuring systems based upon Texas Instruments' DLP® technology. ViALUX is well experienced in DMD Discovery[™] applications, provides both standard and customized high-speed controllers and offers system integration support. Contact: Roland Hoefling, President.

Vision 2006

#805

#205

Am Kochenhof 16, Stuttgart, Germany, 70192 49 711 2589 0; fax 49 711 2589 440 info@messe-stuttgart.de; www.messe-stuttgart.de

New Product: MiNaT: prec.mechanics, micro+nano technologies LASYS: system solutions in laser material processing.

VISION, www.vision-messe.de *Leading International trade fair for machine vision and identification technologies, November 2006. Contact: Silvia Blumenschein, Messe Stuttgart, International Project Coordination, silvia.blumenschein@messe-stuttgart.de.

Vision Systems Design

#209

98 Spit Brook Rd, Nashua, NH, 03062-2810 603/891-0123; fax 603/891-0587 www.vision-systems.com

VISION SYSTEMS DESIGN provides global coverage of vision and imaging components, subsystems and technologies and how they are integrated into leading-edge machine vision/industrial, medical, scientific and military/aerospace applications. Contact: Kathy Bush, Publisher, kathyb@pennwell.com.

***** Attendee Pen Sponsor **Wicked Lasers**

Room 104, No 9 Lane 89, Anshun Road, Shanghai, China, 200052 86 13524717140

b2b@wickedlasers.com; www.wickedlasers.com

Wicked Lasers manufactures high quality, high output and extremely versatile DPSS 473nm, 532nm & 650nm portable laser modules. Based in Shanghai, China, Wicked Lasers provides cost-effective and reliable solutions for military, law enforcement, industrial and scientific applications. High powered portable versatile DPSS red, green and blue laser modules.

Wiley-VCH GmbH & Co. KGaA #1207

Boschstr 12, Weinheim, Germany, 69469 49 6201 606 0; fax 49 6201 606 100 service@wiley-vch.de; www.wiley-vch.de Scientific Books and Journals.

Wordingham Technologies

SPIE Corporate

580 Fisher Station Dr, Victor, NY, 14564 585/924-2294; fax 585/924-7660 sales@wordingham.com; www.wordingham.com

Wordingham Technologies, produces precision custom machined components exclusively for the optical, photonics, precision instrumentation markets. Our reputation of zero defects and absolute

on time delivery is well known in the industry. We provide components for products such as, optical devices/lenses, laser devices, machine vision/ illumination, micro/nano positioning and medical instrumentation. See why we are considered "The Mechanical Partner to the Optical World". Contact: Michael Grady, Vice President/General Manager.



Wordingham Technologies - The Mechanical Partner to the Optical World.

Xiton Photonics GmbH

#122

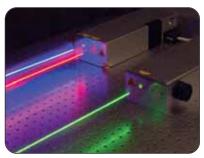
#1109

#403

Openstr 10, Kaiserslautern, Germany, 67661 49 631 627 5915; fax 49 176 212 59078 sales@xiton-photonics.com; www.xiton-photonics.com

New Product: SLM-1.06-Q: Single frequency high repetition rate q-switched laser with 4W average power.

Xiton Photonics GmbH produces high beam quality q-switched kHz repetition rate laser systems for science and industry. Our competence is especially the nonlinear frequency conversion to generate powerful fixed and tunable laser light in the wavelength range between 4, 5µm-200nm. Solid state laser, DPSS, OPO, OPG, Q-switch. Contact: Jürgen Bartschke, jbartschke@xitonphotonics.com.



Powerful and reliable industry proven DPSS lasers at various wavelength are offered by Xiton Photonics GmbH, Germany.

30 An SPIE Europe Event • spieeurope@spieeurope.org • Tel: +44 29 2089 4747 • spie.org/events/epeexhibit a photoniques Advertiser:

The leading French magazine specializing in Optics-Photonics !

Photoniques : the magazine of the French optical community

Photoniques, magazine of the French Optical Society (SFO), establishes links and partnerships between all the entities working in Optics-Photonics:

- at a national level with AFOP (French Manufacturers Association in Optics and Photonics), as well as many sectors from the industry (telecommunications, industrial vision, lasers, optical measurements...)
- in each part of France with the regional associations (Alsace, Aquitaine, Provence Alpes Côte d'Azur, Rhône Alpes, Bretagne...)

Photoniques : the source of information for all the professionals in the field of Optics-Photonics in France

In each issue:

🐌 industry news, 🔮

- technical articles and applications written by leading French industry specialists,
- the new products.

A useful and efficient circulation

Minimum circulation : 7,000 copies

After 5 years of existence, cooperation and networking with the specialists of the optics world in France, Photoniques has built a large qualified database of potential users : researchers, technicians, engineers and managers, from industry such as communications, industrial vision, lasers, test and measurements, imaging Displays...

Are you interested in the French optics and photonics market? Photoniques is your partner! With Photoniques, you will gain new customers and optimize the performance of your distributors.

For additionnal information, contact: Nadine Cariou tel: 33 1 69 28 31 46, email: n.cariou@photoniques.com to request an issue of Photoniques and a media kit Numero 21 Numero 2006

La revue des solutions optiques

TON

Hervelstevne

Les lauréals des prix SFO

medaale d'or du see

un logiciel de conception optique multiplexage de longueu donc

Nouveaux resel

Importants changes in 2006 Change from 4 to 6 issues per year A new layout

PWOTONNOUES LIST UN NEWS IN UN SECURIT INAMENEE N'M

SPIE Corporate Membership

Help steer innovation towards relevance

SPIE Corporate Membership enhances your organization by providing significant discounts on:

- SPIE exhibitions*
- SPIE publications
- SPIE Digital Library subscriptions
- Advertising rates
- · Mailing lists
- And recruitment services.

* Corporate Members receive a 15% discount on exhibit space at events solely owned by SPIE.

Get complete details at spie.org/membership

Corporate members as of December 2005 4D Technology Corp. A&I Ltd. ADF Phase Shift Adimec Advanced Microoptic Systems GmbH Aerotech Inc. Affymetrix, Inc. Agiltron, Inc. Alfalight, Inc. ALIO Industries Alpha Alpine Research Optics Corp. Altos, Inc./EKSMA, Ltd. Ampex Data Systems Corp. Analytical Spectral Devices, Inc. Anda Optec Ltd. Andor Technology Andover Corp. Apollo Optical Systems, LLC APPLIED IMAGE Group Applied Surface Technologies Aprio Technologies, Inc./ Marketing & Sales Archer OpTx, Inc. Argyle International Inc. Ariel Optics, Inc. Asahi Spectra USA Inc. ASMI Asociación Industrial de Optica, Color & Imagen/ Parc Technologic Avantes, Inc. Axometrics, Inc. Axsys Technologies Avase America Inc. AZ Electronic Materials USA Corp./USA Corp. Azure Photonics Co. B&W Tek Inc. Barr Associates. Inc. Berliner Glas/U.S. Bioptigen, Inc. Blue Hill Optical Technologies Boston Electronics Corp. Boston Micromachines Corp. Boulder Nonlinear Systems, Inc. Brandstrom Instruments, Inc. Brandywine Optics, Inc. Breault Research Organization, Inc. Brewer Science, Inc. Brighten Optics Ltd. Bristol Instruments Inc Calmar Optcom Inc. Cambridge Research and Instrumentation Inc. Cambridge Technology Inc. Canon USA Inc./ Semiconductor Equipment Div. **CEDIP Infrared Systems** Central Astronomical Observatory (PULKOVO)/ Russian Academy of

Sciences

Central Electronics Engineering Research Institute/CSIR Madras Complex Central Institute for Unique Instrumentation Central R&D Institute Robotics and Technical Cybe Central Research Institute Cyclone CeramOptec Industries, Inc. Chernyshevsky Saratov State Univ. Chroma Technology Corp. Chung Shan Institute of Science and Technology CI Systems, Inc. Clear Shape Technologies, Inc. Cleveland Crystals Inc./A Gooch & Housego PLC Coastal Optical Systems Inc. Cobolt AB Coherent Inc. Coherent Technologies, Inc. College of Optical Sciences/ The Univ. of Arizona Communication Automation Mounting Ltd. Continuum Corning Inc. Corning Tropel Corp. Crystal Fibre A/S CrystaLaser LC CRYSTECH Inc. Ctr. of New Technologies OPTRON Cvantek Corp. Daugavpils Univ. Davidson Optronics Inc. Defence Scientific Information & Documentation Ctr Del Mar Ventures Digital Optics Corp. Docter Optics Inc. Dongjin Semichem Co., Ltd./ Electronic Materials Div DRS Technologies, Inc. DSO National Labs. Ealing Catalog Inc. Eastman Kodak Co. Edmund Optics Inc./Main Office **EKSPLA Experimental Lasers** I td. **ELCAN Optical Technologies** Electro-Optical Imaging, Inc. Electro-Optical Systems Inc. Elliot Scientific Ltd. EM4. Inc. Energen, Inc. Engineering Synthesis Design, Inc ENTEK, Technocentre Laser Diagnostics & Pure Techn Enterprise Ireland Epner Technology Inc. Evaporated Metal Films Corp. Exalos AG Exitech Inc. F&K Delvotec. Inc. Far Eastern State Technical Univ. Federal Scientific and Production Ctr.

RPC ISTOK FemtoLasers, Inc. Fianium Ltd. Fiberguide Industries, Inc. Fibertech Optica Firebird Technologies Inc. FISBA OPTIK LLC/Rochester NY FJW Optical Systems, Inc. FLIR Systems Inc./Boston Div. Foreal Spectrum, Inc. Frankfurt Laser Co. Fresnel Technologies Inc. Gamma Scientific General Physics Institute/ Russian Academy of Sciences Glass Fab, Inc. Goodrich Corp./Optical & Space Systems Div Graphic Security Systems Corp. Grintech GmbH G-S PLASTIC OPTICS/A Germanow-Simon Co. Gulfstream Aerospace Corp. HC Photonics Corp. Headwall Photonics Inc. Heidelberg Instruments Inc./ Service USA Hellma International Inc. Heraeus Optics Hextek Corp. **High Plains Optics** High Q Laser (US) Inc. Hinds Instruments Inc. HOLOEYE Photonics AG Hong Kong Productivity Council/ Manufacturing Technology Div HORIBA Jobin Yvon Inc./OSD Div House of Optics Scientific Ctr. Hoya Corp. Imperx Inc. INAF-Istituto Nazionale di Astrofisica Incom Inc. Infrared Systems Development Corp. Institut für Mikrotechnik Mainz GmbH Institute for Applied Physics/ Russian Academy of Sciences Institute for Infocomm Research, Agency for Space, Technology and Research Institute for Laser Physics Institute for Roentgen Optics Institute of Atmospheric Optics/ Siberian Branch of RAS Institute of Atmospheric Physics/Russian Academy of Sciences Institute of Fine Mechanics and Optics Institute of Laser and Information Technologies Pr/ Russian Academy of Sciences Institute of Microelectronics/ Russian Academy of Sciences Institute of Microstructure Physics/Russian Academy of Sciences

Federal State Unitary Enterprise

SPIE Corporate Membership

Riga Technical Univ./Institute of

Institute of Physics and Technology/Russian Academy of Sciences Institute of Radioengineering and Electronics/Russian Academy of Sciences Institute of Semiconductor Physics Institute of Spectroscopy/ Russian Academy of Sciences Instituto de Astrofisica de Canarias/Library International Radiation Detectors, Inc. loffe Physical Technical Institute IPG Photonics Corp. Janos Technology Inc. JDS Uniphase/Commercial and Consumer Prod JEOL USA Inc. Joint Stock Co. Lytkarino Optical Glass Factory JSR Micro, Inc. JT Ingram Jupiter Kazan Optic-Mechanic Plant Production Corp. Kazan Physical-Technical Institute/Russian Academy of Sciences KBTEM-OMO State Research & Production Association **KEOS** Optoelectronics. Inc. KLA-Tencor Corp. Kreischer Optics, Ltd. Kuban State Univ. Kursk State Technical Univ. L-3 Communications Cincinnati Electronics Labest Medical Device LaCroix Optical Co. Laflin Ltd. Lambda Research Corp. Lambda Research Optics, Inc./ Lasers Optics & Coatings Land Engineering Agency Laser Compact Co. Ltd. LASER COMPONENTS IG, Inc. Laser Focus World/PennWell Corp Laser Physics Scientific Research Institute Lasertec USA Inc. LASOS Lasertechnik GmbH Lattice Electro Optics, Inc. Latvijas Univ./Institute of Solid State Physics Leica Instruments (Singapore) Pte Ltd. LEISTER Technologies LLC Leybold Optics USA, Inc. Lightspeed Technologies LightWorks Optics, Inc. LINOS Photonics, Inc. LOMO plc Lumera Corp. Luxel Corp. M.V. Lomonosov Moscow State Univ. M3 Measurement Solutions Inc Mad City Labs, Inc. Massachusetts Institute of Technology Matrix Technology Corporation

Max Levy Autograph Inc. Melles Griot Mentor Graphics Corp./Design to Silicon Metavac Micro Laser Systems, Inc. Micro Photonics, Inc. Microelectronic Technologies Joint stock Institute Micromotion GmbH Micronic Laser Systems AB Mildex Inc. MilSys Technologies LLC Mindrum Precision Inc. Minsk Physics Institute/Belarus Academy of Sciences Minus K Technology Inc. Model Optics Model Predictive Systems, Inc. Molecular Imprints, Inc./ Headquarters Moscow Engineering Physics Institute Moscow Institute of Physics and Technology Moscow Mining Institute Moscow Power Engineering Institute Technical Univ. Moscow Scientific Techn. Soc. of Instr. & Meas Eng Moscow State Inst. of Electronics and Mathematics Moscow State Univ. of Geodesy and Cartography MPA Crystal Corp MPB Communications Inc. mso jena Mikroschichtoptik GmbH N.E. Bauman Moscow State Technical Univ. Naked Optics Corp. NASA/Marshall Space Flight Ctr./Space Optics Manufacturing Tech Ctr National Optical Astronomy Observatory/Library NeuriCam/Vision Chips New Mexico Optics Industry Association New Scale Technologies Inc. New Source Technology, LLC Newport Corp. NexTech Solutions, Inc. Nikon Precision Inc. nLight Corp. Northrop Grumman Corp./ **Cutting Edge Optronics** Nozomi Photonics Co., Ltd. NPE Cosmic Industry KVANT NPO Geofizika-Cosmos Scientific & Production Enter Nufern Observatorio Astronomico Nacional Ocean Optics, Inc. Octec Ltd./The Western Ctr. OFS Ohara Corp. Omega Optical, Inc./Corporate Office Ondax. Inc. Ophir Optronics, Inc. Optec S.p.A. **Optical Research Associates** Optical Support, Inc.

Optics 1. Inc. OPTICS 1, Inc./Commericial Systems Div. **Optics For Hire** Optikos Corp. Optikron GmbH **Optilab LLC** Optimax Systems, Inc. OptiPro Systems OptiSource, LLC Opto Diode Corp. **OptoElectronic Components** OptoSigma Corp. OPTWARE Corp. Orion Research and Production Association P.N. Lebedev Physical Institute/Russian Academy of Sciences P.N. Lebedev Physical Institute/Samara Branch/ RAS PerfectWave Technologies LLC Perm Scientific-Industrial Instrument-Making Co. Petrozavodsk State Univ./ Information Measurment Systems Phila Optics Inc. PhotoMed Technologies Photon Design Photon Engineering, LLC Photonic Cleaning Technologies Photonic Products Ltd. **Photonics Industries** International Inc. Photooptics Ltd. Photop Technologies, Inc. Photron USA, Inc. PI (Physik Instrumente) L.P. Poco Graphite, Inc. PolarOnyx, Inc. Polymer Assembly Technology, Inc. Polymer Optics, LLC Polymicro Technologies, LLC Polytec, Inc. POLYUS Research & **Development Institute** Power Technology, Inc. Precision Asphere LLC Precision Optics Corp. Precitech. Inc. Princeton Instruments, Inc. PULSAR Science Research Institute/RC Kremniy Div. PVP Advanced EO Systems, Inc. QED Technologies Inc./ Corporate Headquarters Quality Laser Optics Ltd. Quantronix Corp. Quintessence Photonics Corp. Rainbow Research Optics, Inc. Ramenskoye Design Co. Rave LLC Ravdiance. Inc. Raytheon Co./Vision Systems **REAGENT Scientific Technical** Ctr. Ltd. Research Electro-Optics, Inc. Research Institute of GOZNAK Research Institute of Pulse Techniques Resonance, Ltd.

Technical Physics Rockwell Laser Industries Inc. Rocky Mountain Instrument Co. Rolyn Optics Co. RoMack, Inc. RPMC RSI RSoft Design Group, Inc. Russian Chapter of Society for Info Display Div Russian Federal Nuclear Ctr. **Russian Social Fund TOPEC** Solid State Optoelectron Sacher Lasertechnik GmbH Salem Distributing Co./ Precision Div. Samara Institute of Image Processing Systems Russian Academy of Sciences Santa Clara Univ. Satisloh North America Inc./ Precision Optics SCANLAB America, Inc. SCD-Semi Conductor Devices Schneider Optics, Inc./OEM SCHOTT North America, Inc./ Optics for Devices Scientific Research Association/Astrophysics Scientific Research Inst. of Precise Instruments Scientific Research Institute of Aviation Equipmen SciMeasure Analytical Systems, Inc. SensL Technologies Ltd. Sensors Unlimited, Inc. Senspex Inc Servometer - PMG LLC SGS Slicing Solutions Inc. Simax Technologies, Inc. Siskiyou Corp. Soluris Inc. Southern Vision Systems, Inc. Sparkle Optics Corp. Special Optics Manufacture & Design Specim Spectral Imaging Ltd. Spectrogon AB/Headquarters -Sweden Spectrum Scientific. Inc. Spectrum Thin Films Corp. Spica Technologies, Inc. Spiricon, Inc. SRC SMC Technological Ctr. MSIEE SRICO Inc. SRIPDE-Science Research Institute for Precision De St. Petersburg Institute of Fine Mechanics and Optics St. Petersburg State Univ. of Aerospace Instrumentation Standards Productivity & Innovation Board/National Metrology Ctr.

Star Tech Instruments State Univ. of Control Systems & Radioelectronics Steag Hamatech USA Inc. StellarNet, Inc. StockerYale Canada Inc. Super Optronics Surface Finishes Co. Inc. Synopsys, Inc. Syntec Technologies Inc. TAC/Tour Andover Controls/ Precision Instruments TDISIE Siberian Branch/ Russian Academy of Sciences Technomedica Research & Manufacturing Co. Telemark Thales Optics The Cooke Corp. Thermo Electron, CIDTEC/ **CIDTEC Cameras & Imagers** Tinsley Labs. TopGaN Ltd. Toppan Photomasks, Inc. Tower Optical Corp. Toyota Central Research and Development Labs. Inc. Trex Advanced Materials/ Materials Tydex JS Co. U.S. Photonics Inc Umicore Thin Film Products UNIQUE ICs LLC Unique-m.o.d.e. AG Univ. of Arizona/Optical Sciences Ctr. Univ. of Colorado/ Boulder/ Boulder Univ. of Iowa Libraries Univ. of North Carolina/ Charlotte/Atkins Library Universal Photonics Inc. Ural Optical and Mechanical Plant V.I. Ulyanov (Lenin) State Electrical Engineering Varian, Inc. Vavilov State Optical Institute/ All-Russian Research Ctr. Verrillon Inc. Virtual Industries, Inc. Visotek Inc. Volga State Academy of Telecommunications and Info Westchester Technologies, Inc. Wordingham Technologies YUCO Optics Corp.

Stanford Computer Optics Inc.

Thank You Corporate Members!

Zygo Corp.

Product Categories

Astronomy

A.R.T. Photonics GmbH AFOP - French Optics and Photonics Manufacturers Association Electro Optics Magazine Flexible Optical BV Fogale Nanotech Imagine Optic M.C.S.E. Omega Optical, Inc. Optic Technium OZ Optics Ltd. Photonic Cleaning Technologies Physik Instrumente (PI) GmbH & Ćo. TOPAG Lasertechnik GmbH TRANSLUX Wordingham Technologies

Cameras and CCD Components

AFOP - French Optics and Photonics Manufacturers Association **BFI** Optilas International Davin Optronics Ltd. Electro Optics Magazine FLIR Systems Ltd. FRAMOS Electronic Vertriebs GmbH Gilden Photonics Ltd Hamamatsu Photonics France Horiba Jobin Yvon SAS Liaht Tec Nalux Co., Ltd. **OpticsPages Optronis GmbH** PCO AG Photonic Cleaning Technologies Photonis-DEP Shimadzu France Specim Spectral Imaging Ltd. Spiricon, Inc. Thermoteknix Systems Ltd. Wordingham Technologies

Chemical & Biological Sensing

A.R.T. Photonics GmbH AFOP - French Optics and Photonics Manufacturers Association Electro Optics Magazine European Network of Excellence in Micro-Optics Fogale Nanotech Laser Components GmbH NP Photonics Optronis GmbH RSoft Design Group Specim Spectral Imaging Ltd. TOPAG Lasertechnik GmbH Wordingham Technologies

Clinical, Chemical and Biological Instrumentation

A.R.T. Photonics GmbH AFOP - French Optics and Photonics Manufacturers Association Davin Optronics Ltd. Edinburgh Instruments Ltd Electro Optics Magazine Gilden Photonics Ltd Laser Components GmbH Leoni Fiber Optics GmbH NP Photonics Polymicro Technologies LLC Pyser-SGI Ltd. Shimadzu France Specim Spectral Imaging Ltd. TOPAG Lasertechnik GmbH Wordingham Technologies

Communications

AFOP - French Optics and Photonics Manufacturers Association **BFI** Optilas International Electro Optics Magazine Laser Components GmbH LEDIL Leoni Fiber Optics GmbH NP Photonics OPERA-2015 OZ Optics Ltd. Physik Instrumente (PI) GmbH & Ćo. Polymicro Technologies LLC RSoft Design Group Wordingham Technologies

Displays

Davin Optronics Ltd. Electro Optics Magazine European Network of Excellence in Micro-Optics Light Tec OPERA-2015 Optic Technium Texas Instruments DLP Products ViALUX GmbH Wordingham Technologies

Electron-Beam Lithography

Electro Optics Magazine European Network of Excellence in Micro-Optics M.C.S.E. Nalux Co., Ltd. Physik Instrumente (PI) GmbH & Co. Texas Instruments DLP Products

Electronic Imaging Components, Equipment, Systems

A.R.T. Photonics GmbH **BFI** Optilas International Electro Optics Magazine Electron Tubes **Fischer Connectors Sarl** FLIR Systems Ltd. FRAMOS Electronic Vertriebs GmbH Hamamatsu Photonics France Horiba Jobin Yvon SAS Microcertec **NP** Photonics Photonis-DEP Physik Instrumente (PI) GmbH & Ćo. Polymicro Technologies LLC Specim Spectral Imaging Ltd. Spiricon, Inc.

Thermoteknix Systems Ltd. TOPAG Lasertechnik GmbH TRANSLUX Wordingham Technologies

Electronics, Signal Analysis Equipment

BFI Optilas International Electro Optics Magazine Fischer Connectors Sarl Gilden Photonics Ltd Laser Components GmbH Physik Instrumente (PI) GmbH & Co. Spiricon, Inc. Wordingham Technologies

EUV Lithography

AFOP - French Optics and Photonics Manufacturers Association Electro Optics Magazine European Network of Excellence in Micro-Optics Imagine Optic M.C.S.E. Nalux Co., Ltd. Physik Instrumente (PI) GmbH & Co. Texas Instruments DLP Products

Fiber Optic Components, Equipment, Systems

A.R.T. Photonics GmbH AFOP - French Optics and Photonics Manufacturers Association Avantes BV **BFI** Optilas International CeramOptec GmbH ECOC 2006 Electro Optics Magazine European Network of Excellence in Micro-Optics Fogale Nanotech Hamamatsu Photonics France Laser Components GmbH LEDIL Leoni Fiber Optics GmbH Light Guide Optics Germany GmbH Light Tec LINOS Photonics France Newport Spectra-Physics Nozomi Photonics NP Photonics Nuvonyx Europe SA Ocean Optics B.V. **OPERA-2015 Opton Laser International** OZ Optics Ltd. Physik Instrumente (PI) GmbH & Ćo. Piezosystem Jena, Inc. Polymicro Technologies LLC RSoft Design Group Santec Europe Ltd. SEDI Fibres Optiques Sill Optics GmbH & Co., KG Spiricon, Inc. Wordingham Technologies

Finished Optics, Filters, & Coatings, Optical Fabrication Equipment

AFOP - French Optics and Photonics Manufacturers Association AHF analysentechnik AG BFI Optilas International CeramOptec GmbH Davin Optronics Ltd. Electro Optics Magazine European Network of Excellence in Micro-Optics FLIR Systems Ltd. Horiba Jobin Yvon SAS Laser Components GmbH M.C.S.E. Newport Spectra-Physics Ocean Optics B.V. Omega Optical, Inc. Opton Laser International OZ Optics Ltd. Photonic Cleaning Technologies Physik Instrumente (PI) GmbH & Co. Pyser-SGI Ltd. SAES Getters S.p.A. SEDI Fibres Optiques Sill Optics GmbH & Co., KG Spiricon, Inc. TRANSLUX

High Speed Imaging and Sensing

A.R.T. Photonics GmbH AFOP - French Optics and Photonics Manufacturers Association **BFI** Optilas International Electro Optics Magazine FLIR Systems Ltd. FRAMOS Electronic Vertriebs GmbH Gilden Photonics Ltd **NP** Photonics **Optronis GmbH** Photonic Cleaning Technologies Photonis-DEP Resolve Optics Ltd. Santec Europe Ltd. Specim Spectral Imaging Ltd. Spiricon, Inc. Texas Instruments DLP Products ViALUX GmbH Wordingham Technologies

Infrared Sources, Detectors, Systems

A.R.T. Photonics GmbH AFOP - French Optics and Photonics Manufacturers Association **BFI** Optilas International Davin Optronics Ltd. Edinburgh Instruments Ltd Electro Optics Magazine European Network of Excellence in Micro-Optics FLIR Systems Ltd. Gilden Photonics Ltd Hamamatsu Photonics France HGH Systèmes Infrarouges Horiba Jobin Yvon SAS id Quantique SA Laser Components GmbH I FDII Newport Spectra-Physics NP Photonics Nuvonyx Europe SA OPERÁ-2015 Opton Laser International Shimadzu France Spiricon, Inc. Thermoteknix Systems Ltd. TOPAG Lasertechnik GmbH **Trioptics France** Wordingham Technologies

Ion-Beam Lithography

AFOP - French Optics and Photonics Manufacturers Association Electro Optics Magazine European Network of Excellence in Micro-Optics

Physik Instrumente (PI) GmbH & Co.

Lasers and Other Light Sources, Laser Accessories, Laser Systems

A.R.T. Photonics GmbH AFOP - French Optics and Photonics Manufacturers Association Ayase Europe GmbH **BFI** Optilas International CeramOptec GmbH Edinburgh Instruments Ltd EKSPLA Ltd. Electro Optics Magazine Gilden Photonics Ltd GWU-Lasertechnik GmbH Hamamatsu Photonics France HC Photonics Corp. Horiba Jobin Yvon SAS id Quantique SA Imagine Optic Keopsys Laser Components GmbH Light Tec LightConversion LINOS Photonics France Lumera Laser GmbH MICOS GmbH Microcertec Newport Spectra-Physics NP Photonics Nuvonyx Europe SA Ocean Optics B.V. OPERA-2015 **Optic Technium** Opton Laser International OWIS GmbH OZ Optics Ltd. Photonic Cleaning Technologies Polymicro Technologies LLC Quantel RSoft Design Group SAES Getters S.p.A. Santec Europe Ltd. Sill Optics GmbH & Co., KG SIOS Messtechnik GmbH Spiricon, Inc. **TOPAG Lasertechnik GmbH** TopGaN Wicked Lasers Wordingham Technologies Xiton Photonics GmbH

Law Enforcement Technologies

Davin Optronics Ltd. Electro Optics Magazine FLIR Systems Ltd. Laser Components GmbH OZ Optics Ltd. Photonic Cleaning Technologies Polymicro Technologies LLC Resolve Optics Ltd. Thermoteknix Systems Ltd.

Metrology, Inspection and Process Control

A.R.T. Photonics GmbH AFOP - French Optics and Photonics Manufacturers Association Davin Optronics Ltd. Electro Optics Magazine European Network of Excellence in Micro-Optics Flexible Optical BV Fogale Nanotech Gilden Photonics Ltd HGH Systèmes Infrarouges Horiba Jobin Yvon SAS Imagine Optic Laser Components GmbH LINOS Photonics France Lyncée Tec SA M.C.S.E. MICOS GmbH Newport Spectra-Physics NP Photonics **OPERA-2015** Optic Technium OWIS GmbH OZ Optics Ltd. Photonic Cleaning Technologies Physik Instrumente (PI) GmbH & Čo. Piezosystem Jena, Inc. Polymicro Technologies LLC Pyser-SGI Ltd. RSoft Design Group SIOS Messtechnik GmbH Specim Spectral Imaging Ltd. Taylor Hobson

TOPAG Lasertechnik GmbH Trioptics France Wordingham Technologies

Optical Components

A.R.T. Photonics GmbH AFOP - French Optics and Photonics Manufacturers Association AHF analysentechnik AG Ayase Europe GmbH **BFI** Optilas International Boehringer Ingelheim MicroParts GmbH CEDRAT Technologies CeramOptec GmbH Cristal Laser SA ECOC 2006 EKSPLA Ltd. Electro Optics Magazine Electron Tubes European Network of Excellence in Micro-Optics Fischer Connectors Sarl Flexible Optical BV FLIR Systems Ltd. FRAMÓS Electronic Vertriebs GmbH Fujian CASTECH Crystals, Inc. Gilden Photonics Ltd GWU-Lasertechnik GmbH Hamamatsu Photonics France HC Photonics Corp. Horiba Jobin Yvon SAS Laser Components GmbH I FDII Leoni Fiber Optics GmbH

LINOS Photonics France M.C.S.E. Miass Machinebuilding Plant MICOS GmbH Nalux Co., Ltd. Newport Spectra-Physics Nozomi Photonics NP Photonics NT MDT Co. Ocean Optics B.V. OPERA-2015 **OpticsPages** Opton Laser International **OWIS GmbH** OZ Optics Ltd. Photonic Cleaning Technologies Pyser-SGI Ltd. Raicol Crystals Ltd. Resolve Óptics Ltd. RSoft Design Group Santec Europe Ltd. Sill Optics GmbH & Co., KG Specim Spectral Imaging Ltd. Spiricon, Inc. Texas Instruments DLP Products TOPAG Lasertechnik GmbH TRANSLUX **Trioptics France** ViALUX GmbH Wordingham Technologies

Optical Detectors

A.R.T. Photonics GmbH AFOP - French Optics and Photonics Manufacturers Association BFI Optilas International

Put on some colour

Need to generate a new wavelength with your laser ?

Our LBO crystals are already being used in various laser configurations and yield light from the red to the UV end of the spectrum.

Thanks to their outstanding polishing and coating quality they will help you out in both intra and extra-cavity designs.

Try them and you'll see the light.

grown and processed at

www.cristal-laser.fr

Boehringer Ingelheim MicroParts GmbH Electro Optics Magazine Electron Tubes FLIR Systems Ltd. Gilden Photonics Ltd GWU-Lasertechnik GmbH Hamamatsu Photonics France Horiba Jobin Yvon SAS id Quantique SA Laser Components GmbH Newport Spectra-Physics Ocean Optics B.V. OPERA-2015 **Opton Laser International** Photonic Cleaning Technologies Photonis-DEP Santec Europe Ltd. Specim Spectral Imaging Ltd. Spiricon, Inc. Wordingham Technologies

Optical Fibers

A.R.T. Photonics GmbH AFOP - French Optics and Photonics Manufacturers Association Avantes BV **BFI** Optilas International CeramOptec GmbH ECOC 2006 Electro Optics Magazine European Network of Excellence in Micro-Optics Fischer Connectors Sarl Laser Components GmbH LEDIL Leoni Fiber Optics GmbH Light Guide Optics Germany GmbH Light Tec Newport Spectra-Physics **NP** Photonics Ocean Optics B.V. OPERA-2015 **OpticsPages Opton Laser International** OZ Optics Ltd. Photonic Cleaning Technologies Polymicro Technologies LLC RSoft Design Group Santec Europe Ltd. SEDI Fibres Optiques Sill Optics GmbH & Co., KG

Optical Materials and Substrates

AFOP - French Optics and Photonics Manufacturers Association **BFI** Optilas International EKSPLA Ltd. Electro Optics Magazine European Network of Excellence in Micro-Optics Fujian CASTECH Crystals, Inc. GWU-Lasertechnik GmbH HC Photonics Corp. Laser Components GmbH M.C.S.E. Miass Machinebuilding Plant Microcertec Newport Spectra-Physics Ocean Optics B.V. OPERA-2015 **Opton Laser International** Raicol Crystals Ltd. SAES Getters S.p.A TOPAG Lasertechnik GmbH

Optical Test and Measurement Equipment, Interferometer

A.R.T. Photonics GmbH AFOP - French Optics and Photonics Manufacturers Association **BFI** Optilas International ECOC 2006 Electro Optics Magazine European Network of Excellence in Micro-Optics Flexible Optical BV **Fogale Nanotech** Gilden Photonics Ltd HGH Systèmes Infrarouges Horiba Jobin Yvon SAS Laser Components GmbH Leoni Fiber Optics GmbH Light Tec Lyncée Tec SA Newport Spectra-Physics **NP** Photonics NT MDT Co. Ocean Optics B.V. **OPERA-2015 Optic Technium Opton Laser International** OWIS GmbH OZ Optics Ltd. Physik Instrumente (PI) GmbH & Co. Santec Europe Ltd. Shimadzu France SIOS Messtechnik GmbH Spiricon, Inc. Taylor Hobson TOPAG Lasertechnik GmbH **Trioptics France** Wordingham Technologies

Optical/Laser Microlithography

AFOP - French Optics and Photonics Manufacturers Association Electro Optics Magazine European Network of Excellence in Micro-Optics Ocean Optics B.V. OPERA-2015 Opton Laser International OZ Optics Ltd. Physik Instrumente (PI) GmbH & Co. RSoft Design Group Wordingham Technologies

Optics Manufacturing

A.R.T. Photonics GmbH AFOP - French Optics and Photonics Manufacturers Association Davin Optronics Ltd. EKSPLA Ltd. Electro Optics Magazine European Network of Excellence in Micro-Optics FLIR Systems Ltd. Horiba Jobin Yvon SAS Imagine Optic Laser Components GmbH I FDII Leoni Fiber Optics GmbH LINOS Photonics France Newport Spectra-Physics Ocean Optics B.V.

OLLA Project Omega Optical, Inc. OPERA-2015 Pyser-SGI Ltd. Resolve Optics Ltd. Santec Europe Ltd. Sill Optics GmbH & Co., KG TRANSLUX Wordingham Technologies

Photonics Equipment Manufacturer

A.R.T. Photonics GmbH AFOP - French Optics and Photonics Manufacturers Association Avantes BV BFI Optilas International Electro Optics Magazine European Network of Excellence in Micro-Optics Gilden Photonics Ltd Horiba Jobin Yvon SAS LightConversion MICOS GmbH Newport Spectra-Physics Physik Instrumente (PI) GmbH & Ċo. Santec Europe Ltd. Specim Spectral Imaging Ltd. Spiricon, Inc. Thermoteknix Systems Ltd. Wordingham Technologies

Resist Technology and Processing

Electro Optics Magazine European Network of Excellence in Micro-Optics Physik Instrumente (PI) GmbH & Co.

Sensor & Sensor Systems

A.R.T. Photonics GmbH AFOP - French Optics and Photonics Manufacturers Association **BEI Optilas International** Boehringer Ingelheim MicroParts GmbH Davin Optronics Ltd. Edinburgh Instruments Ltd Electro Optics Magazine European Network of Excellence in Micro-Optics Fischer Connectors Sarl Flexible Optical BV **Fogale Nanotech** FRAMOS Electronic Vertriebs GmbH HGH Systèmes Infrarouges Laser Components GmbH Leoni Fiber Optics GmbH Light Guide Optics Germany GmbH NP Photonics NT MDT Co. Ocean Optics B.V. **OPERA-2015**

OZ Optics Ltd. Physik Instrumente (PI) GmbH & Co. RSoft Design Group SIOS Messtechnik GmbH Specim Spectral Imaging Ltd. Spiricon, Inc. ULIS Wordingham Technologies

Services and Publications (Including Professional Societies)

AFOP - French Optics and Photonics Manufacturers Association Alsace International ECOC 2006 Electro Optics Magazine European Optical Society (EOS) Laser Components GmbH Laser Focus World Nature Publishing Group Opto & Laser Europe Photonics Spectra / EuroPhotonics SIOF-Italian Society of Optics and **Photonics** Vision Systems Design Wiley-VCH GmbH & Co. KGaA

Software

AFOP - French Optics and Photonics Manufacturers Association Electro Optics Magazine European Network of Excellence in Micro-Optics Flexible Optical BV FRAMOS Electronic Vertriebs GmbH Gilden Photonics Ltd Light Tec Optima Research Ltd. PhoeniX Software Photon Design RSoft Design Group Thermoteknix Systems Ltd.

Vacuum, Cooling, Gas Handling Equipment

Calcarb Ltd. Electro Optics Magazine Fischer Connectors Sarl M.C.S.E. MICOS GmbH Physik Instrumente (PI) GmbH & Co.

X-Ray Lithography

Electro Optics Magazine European Network of Excellence in Micro-Optics Imagine Optic

ANNOUNCING TWO NEW JOURNALS

New in October 2006

nature

nanotechnology

nature nanotechnology

Launching in October 2006, *Nature Nanotechnology* will provide a forum for the publication of top quality research, encompassing all aspects of nanotechnology where the core advancement being reported adds to the knowledge at the cutting edge of the field.

Aims and scope

Nature Nanotechnology will be defined by a lively mix of content of interest to physicists, chemists as well as materials and life scientists. In each monthly issue, in addition to carefully selected primary research articles, Nature Nanotechnology will provide a variety of information including editorials and commentaries, reviews, research highlights and news and views, which provide insights and analysis of the key advances reported within the broader literature.

Nanotechnology addresses the design, characterization, production and application of structures, devices and systems by the manipulation of materials at atomic, molecular and macromolecular scales. *Nature Nanotechnology* will take a balanced approach to this field and will foster the exchange of ideas between scientists involved in different communities.

Each issue of Nature Nanotechnology will provide:

- Research papers of the highest standard High quality, peer reviewed, authoritative research articles communicating the most significant findings to a broad multi-disciplinary readership
- Reviews Top international researchers provide readers with a comprehensive overview of new developments in their field
- Research Highlights Concise articles providing a summary of new research published in the wider literature
- News and Views A detailed analysis of new research that is making the news
- Commentary a forum for debate where experts discuss the implications of new developments in their field

www.nature.com/naturenanotechnology



photonics

Launching in January 2007, Nature Photonics will provide a unique forum for the publication of high quality research, encompassing all aspects of photonics and optoelectronics for scientists both in academia and industry.

Aims and scope

Nature Photonics will be a high profile peer reviewed journal committed to publishing the highest quality photonics and optoelectronics research covering all aspects of this dynamic field. Nature Photonics will offer news, reviews and commentary of the field alongside top-quality research papers both in print and online. The journal will be a key resource for chemists, physicists and materials scientists as well as engineers working in photonics and optoelectronics based both in academia and industry.

Photonics, including optoelectronics, addresses the fields of research dealing with all aspects of light creation, detection and manipulation as well as the interaction and combination of electronic and optical components. *Nature Photonics* will take a balanced approach to all these areas and its primary role will be to facilitate the flow of ideas to researchers in different communities.

Each issue of Nature Photonics will provide:

- Research papers of the highest standard High quality, peer reviewed and authoritative research articles communicating the most significant findings to a broad multi-disciplinary readership
- Reviews Top international researchers provide readers with a comprehensive overview of new developments in their field
- Research Highlights Concise articles providing a summary of new research published in the wider literature
- News and Views An in depth look at the wider issues of research making the news.
- Commentary a forum for debate where experts discuss the implications of new developments in their field

www.nature.com/naturephotonics

VISIT Booth No: 1102 to:

- find out more about these two new journals including pre-publication prices and submission details

- pick up your sample copy of the recently launched Nature Physics

Too Much Information?



SPIE Newsroom provides relevant industry information via Technical Communities



The International Society for Optical Engineering



Sign up for one or multiple SPIE Newsroom e-Alerts from the following communities:

Astronomy Biomedical Optics & Medical Imaging Communications & Networking Defense & Security Electronic Imaging & Signal Processing Illumination & Displays Industrial Sensing & Measurement Lasers & Sources Micro/Nano Lithography & Fabrication Nanotechnology Optical Design & Engineering Remote Sensing Solar & Alternative Energy