

PROCEEDINGS OF SPIE

# ***Seventh European Seminar on Precision Optics Manufacturing***

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*Editors*

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Freeform optics cannot be manufactured by standard spherical or aspheric manufacturing techniques. They can embody a wide range of geometries, offering great advantages over conventional shapes to a wide range of applications. Jährlich findet am Technologie Campus Teisnach das Optikseminar "European Seminar on Precision Optics Manufacturing" statt. Die zweitägige Fachkonferenz im ersten Halbjahr bietet Experten für Fertigungstechnik im Bereich Präzisionsoptik eine Plattform zur Diskussion über neue Erkenntnisse und Lösungsansätze. Fifth European Seminar on Precision Optics Manufacturing, edited by Rolf Rascher, Christian Schopf, Proc. of SPIE Vol. 10829, 1082905 © 2018 SPIE CCC code: 0277-786X/18/\$18 doi: 10.1117/12.2317630. Proc. of SPIE Vol. 10829 1082905-1 Downloaded From: <https://www.spiedigitallibrary.org/conference-proceedings-of-spie> on 8/7/2018 Terms of Use: <https://www.spiedigitallibrary.org/terms-of-use>. 1 Select. When fabricating high precision optical components, one of the performance characteristics of optical metrology instruments is the ability to detect and accurately measure mid- and high-spatial frequency surface deviations from the ideal figure. The demand to extend the instrument measurement range have driven camera formats to higher and higher density. PROCEEDINGS VOLUME 11478 new. Seventh European Seminar on Precision Optics Manufacturing. Editor(s): Oliver W. Hnle; Gerald Watterer; Rolf Rascher; Alexander Haberl. For the purchase of this volume in printed format, please visit [Proceedings.com](http://Proceedings.com). We report on a photonic process chain to manufacture optical elements by non-contact all laser based micro-processing. Firstly, pre-defined optics geometries are generated by high-precision 1030 nm femtosecond layer-by-layer ablation. In order to meet high surface quality requirements, inevitable stipulated for optical use, the surface of thus generated elements has to be smoothed by subsequent 10.6 µm CO2 laser polishing. Centre for Optical Technologies. Institution: Hochschule Aalen. Department: Faculty of Optics and Mechatronics. Overview. Featured projects (1). Vreiform - Virtueller und realer polierprozess zur Herstellung von Freiformwerkzeugen im Formenbau. Project. View. Advance your research. Seventh European Seminar on Precision Optics Manufacturing. View. Download. 224 Reads. Lab head. Rainer Boerret. Hochschule Aalen. Fifth European Seminar on Precision Optics Manufacturing. 10 April - 11 April. (POM18), Teisnach, Germany. Glass and Optical Materials Division Meeting (GOMD 2018), San Antonio, Texas, USA. 20 May - 24 May. Andrea Silnes, The American Ceramic Society, 600 N. Cleveland Ave.

Edmund Optics is a recognized leader in aspheric lens manufacturing, with extensive experience producing aspheric lenses for ophthalmic instruments, surgical devices, analytical instruments, and defense applications. Edmund Optics' high volume aspheric lens manufacturing cell operates 24 hours a day to produce thousands of precision aspheric lenses per month. Our manufacturing cells feature state-of-the-art production and metrology equipment, which complements our expert knowledge in aspheric lens design and manufacturing. SPIE 10829, Fifth European Seminar on Precision Optics Manufacturing, 10829D (7 August 2018); <https://doi.org/10.1117/12.2318663>. Download. Photonic & Imaging Technology. Manufacturing of Optical Systems and Components. Education and Research. Why to attend the Conference (Euro Optics 2021)? SPIE International Society for Optics and Photonics, European Optical Society, Danish Optical Society, Lasers & Electro-Optics Society, Finnish Optical Society, Swiss Society of Optics and Microscopy, Italian Society of Optics & Photonics, Dutch Society for Optics and Photonics, Spanish Optical Society, Swedish Optical Society, UK Consortium for Photonics and Optics, Optoelectronics Industry Development Association, Laser Association-Russia, EUROM Optical Industries, French Optical Society

The silicon is usually patterned with sub-micrometre precision, into microphotonic components. The study is: "High Precision Glass Polishing with Ketchup," Max Schneckenburger, Stefan Schiffner, and Rainer Bärret, Proceedings of the SPIE 11478, Seventh European Seminar on Precision Optics Manufacturing, 114780F, July 8, 2020. (Thanks to Julius Löffel for bringing this to our attention.) The authors, at the Centre for Optical Technologies, Aalen, Germany, report: "Due to the advantages over conventional polishing strategies, polishing with non-Newtonian fluids are state of the art in precision shape correction of precision optical glass surfaces". Thixotropic fluids like ketchup reduce the 3rd European Seminar on Precision Optics Manufacturing continues to confirm the importance attached to research, innovation and internationalization at the Deggendorf Institute of Technology and the Technology Campus in Teisnach. I would like to wish the all the best, and invite all those interested to participate.

4 PROGRAM, 1st DAY 1st DAY, TUESDAY, APRIL 12th :30 CHECK-IN 10:30 11:00 SESSION 1 - Manufacturing and measurement of high precision elements, large optics and optical systems 12:40 LUNCH 13:40 SESSION 1 15:40 COFFEE 16:10 SESSION 2 - Surface modification, cleaning and coating of optics 18:00 Tour to Laboratory Optical Engineering Technology Campus. by SPIE-Intl Soc Optical Eng. in Sixth European Seminar on Precision Optics Manufacturing. Sixth European Seminar on Precision Optics Manufacturing, Volume 11171; doi:10.1117/12.2526746. Show/hide abstract. The publisher has not yet granted permission to display this abstract. Replicative manufacturing of glass optics with functional microstructures. Cornelia Rojacher, Tim Grunwald, Thomas Bergs. Published: 28 June 2019. by SPIE-Intl Soc Optical Eng. in Sixth European Seminar on Precision Optics Manufacturing. Sixth European Seminar on Precision Optics Manufacturing; doi:10.1117/12.2526733. Publisher Website. Google Scholar.

Optical Manufacturing and Testing . Vol. 2536 . International Society for Optics and Photonics, 1995 . Crossref Google Scholar. 5  
Wilhelmus A. Messelink et al.: "Mid-spatial frequency errors of mass-produced aspheres" Proc. SPIE 10829, Fifth European  
Seminar on Precision Optics Manufacturing, 7 Aug. 2018, doi: 10.1117/12.2318663 . Google Scholar. Volume13, Issue4. November  
2018. Pages 60-63. References. Pushing precision manufacturing to the limits: optics for EUV lithography. Back in 1995 ZEISS began  
its EUV optics development program to enable EUV lithography @13.5nm. In 2019 semiconductor manufacturer will start high volume  
manufacturing of chips using an ASML EUV Step-and-Scan system with optics from ZEISS. This important milestone was achieved by  
pushing the limits of optics precision manufacturing from nm to pm range over the last two decades. The presentation gives some top  
level insights in the state of the art EUV optics manufacturing @ ZEISS. Dr. Christoph Zaczek Carl Zeiss SMT GmbH The ultra-high  
precision requirements for optical surfaces for X-ray astronomy and deep-ultraviolet lithography often require ion figuring. Issues for ion  
beam figuring included re-sputtering and contamination.[3]. References[edit]. ^ The Photographic times, page 18, Volume 38 - 1906. ^  
"ITT Corporation - Ion Figuring". Archived from the original on 2007-10-20. Retrieved 2008-02-12. ^ Schaefer, David (2018-08-07).  
Rascher, Rolf; Schopf, Christian (eds.). "Basics of ion beam figuring and challenges for real optics treatment". Fifth European Seminar  
on Precision Optics Manufacturing. International Manufacturing and measurement of optics from sub millimeter to large and giant  
dimensions and optical systems: Processes for grinding, polishing, centering, assembly, handling, surface modification, cleaning and  
coating of optics. Standards in optics manufacturing. Design of optics, error budgeting, cost-planning Advanced and next generation  
(future) technologies in high precision manufacturing: Ultraprecision machining, kinetic abrasive polishing, additive manufacturing,  
molding, new and special materials, next generation of giant optics manufacturing and testing... We are looking forward to meeting you  
at the 7th European Seminar on Precision Optics Manufacturing. Yours sincerely, Prof. Manufacturing of Optical Systems and  
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Optical Society, UK Consortium for Photonics and Optics, Optoelectronics Industry Development Association , Laser Association-  
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