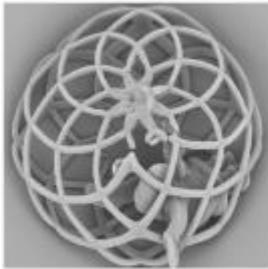
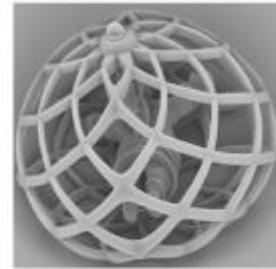
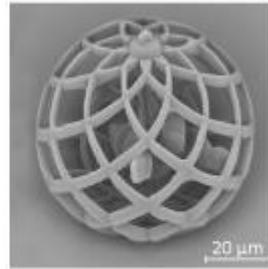


Dear customer, partner, and friend of Multiphoton Optics,



Santa tries to escape ...



... but we got him!

the year 2016 draws to its close, and this is the time to send you our warm *Thank You* for your trust in us and our company. This is the time of the year where we pause for a moment and reflect about the events of the year – you have been an important part of it. Aside of works for our customers challenging us in many different fields, we also have found some time to express our passion about our technology by capturing Santa using our High-Precision 3D Printer LithoProf3D®. As you might understand, he was kind of reluctant due to his job he has these days of the year ...

Let us conjointly review only some selected events and highlights of the year 2016.

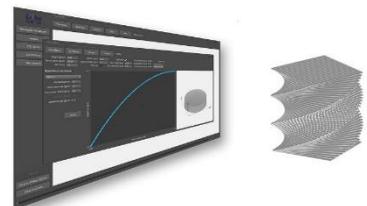
The year 2016 was the **Year of the Products**. We launched several products from the LithoX3D series with some new unique features. For those who are not familiar with this series: X stands



for different product types we offer: LithoProf3D®, LithoDILL3D®, LithoBath3D®, LithoSoft3D®, and LithoP&E3D. The **High-Precision 3D Printer Platform LithoProf3D®** was launched at Hannover Messe in April with its additional features LithoDILL3D® and LithoBath3D®. LithoDILL3D® is based on a patent licensed from Fraunhofer to Multiphoton Optics, and features Multiphoton Optics' unique dip-in lithography. LithoBath3D® allows our customers to take

advantage from large fabrication heights. Additional to the additive fabrication mode, the printer is capable to work in a subtractive mode. In this mode, not only positive resist materials can be structured, but also metal layers. Finally, one of the most prominent features of LithoProf3D® is the Infinite Field of View (IFoV) feature, meaning that no stitching is necessary to create structures on larger areas. This makes LithoProf3D®

unique for industrial customers among all equipment available in the market. **LithoSoft3D® is a flexible software package** which can be used either with the LithoProf3D® equipment, or as stand-alone software for GCode compatible manufacturing machines. The created GCode can either use Aerotech-based



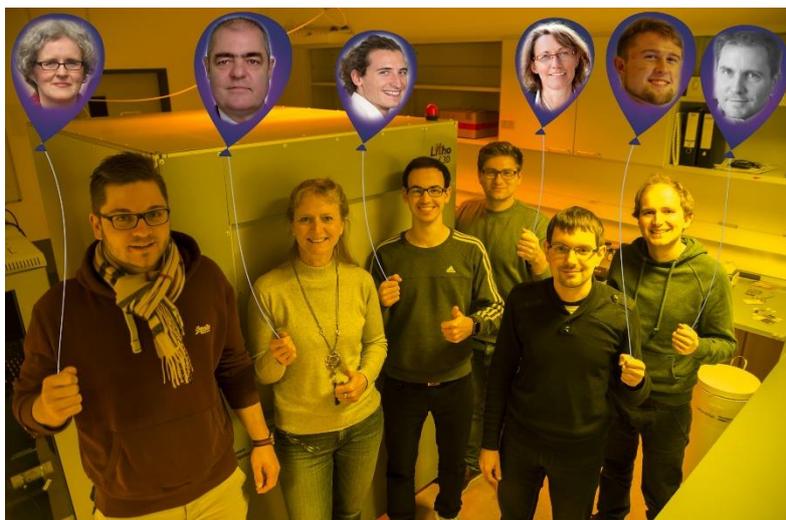
commands or ISO GCode commands. LithoSoft3D® contains powerful and flexible modules for the creation and arrangement of all kind of different structures, and it generates GCode which is transferred to LithoStream3D to control the fabrication process of LithoProf3D®. The

exposure strategy can be adapted dependent on the designed object and different writing strategies can be applied for the best and fastest structuring. Finally, part of Multiphoton Optics products is LithoP&E3D which are dedicated **Services in Prototyping & Engineering** to support our customers in their product development or product refinement in the exciting world of high-precision 3D printing for enabling optimized and novel innovative products for Internet of Things, Industry 4.0, and Biomedicine, among others. In proprietary R&D, Multiphoton Optics has demonstrated to its customers and partners that the printer is capable to create microlenses with the best surface finish to be achieved so far around or below 10 nm. Fabrication speed can be raised up to 100 mm/s, dependent on material, fabrication, and exposure strategy.



Multiphoton Optics is pleased to announce that Dipl.-Ing. Benedikt Stender has become **CTO of the company** effective by June 2016. Benedikt started in 2015 as Application Engineer with works in the continuous optimization and development of hardware and processes with major focus on additive fabrication of microoptical elements and metal structuring. He finished his PhD work from May 2011 until October 2015 at the Julius-Maximilian University Würzburg, Germany, in the field of single photon sources and organic light emitting diodes (PhD work filed in July 2016). From March 2010 to February 2011, diploma thesis at Fraunhofer ISC in the team of Ruth Houbertz on ink-jet printed microlenses. Study of Nanostructure Technology at the University of Würzburg. During that time, he stayed at the University of British Columbia, Vancouver (Canada) from September 2008 until April 2009. His scientific background is in confocal microscopy, single molecule spectroscopy, printed electronics, and microoptics.

Tremendously exciting were the news that Multiphoton Optics was nominated as **Prism Award Finalist 2017** in the Category Additive Manufacturing which is already the second nomination. We were very busy the entire year, but we have provided the “fun photo” on a very short notice, having actual fun with the shootings and the videos we took.





In 2016, Multiphoton Optics has celebrated the **Day of Photonics** which typically is held biannually on October 21, 2016. We opened our doors on October 22, 2016 with the motto “Bringing Photonics to Everyone”, also to the fly, and our major focus for that day was on kids and young students. Moving between several stations, our

visitors have received information on general aspects of light and photonics, on the high precision 3D printing, on real life applications, and also on gimmicks which particularly inspired the kids to be creative. The software was demonstrated by also using gimmicks and selected STL files. Finally, our visitors could get an

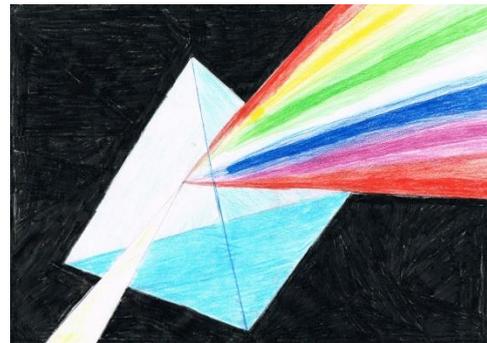


Drawing of the winner of the questionnaire by Dr. Krupp.

impression about the size of the structures by imaging their own hair for comparison with our electron microscope, the surface finish using our confocal sensor, and bringing own samples for our 3D microscope. Two competitions were carried out for the young investigators: a painting competition and a questionnaire with questions around the topics shown at the different stations. Multiphoton Optics has two winners of the painting competition which – by coincidence – are brothers. The prize for the questionnaire after drawing of lots goes to **Luisa Peehs, 15 yrs**, who visited Multiphoton Optics from as far as from the Saarland to learn about the exciting possibilities of our High-Precision 3D Printing. All winners will receive a special prize for their creative contributions. Congratulations – we hope to see you back with us some day.



1. Prize: Tobias Ländner, 8 yrs.



2. Prize: Jonathan Ländner, 10 yrs.

Save the dates! In the course of 2016, Multiphoton Optics has participated in many exhibitions. Our exhibition year opened with the **NanoTech**, the 15th International Nanotechnology Exhibition & Conference, held in Tokyo Big Sight in January with more than 1,300 exhibitors from 27 countries. As part of the Cluster Nanotechnology e.V. in Bavaria, Multiphoton Optics exhibited in the joint booth of IVAM e.V., and presented in the Session: Nanotechnology – Innovations made in Germany, which was organized by IVAM.



SPIE. PHOTONICS WEST



NanoTech in Tokyo was followed by SPIE **Photonics West** in San Francisco in February, one of our major exhibitions, where we were part of the German Booth, often referred to as “German Pavillion”. Aside of exhibiting, we actively participated at Photonics West Conference and presented several talks on the high-precision 3D printing of micro-optics and integrated optical packages and for biomedical application. The 11th Annual IEEE International Conference on Nano/Micro Engineered and Molecular Systems **IEEE-NEMS 2016** was held in Matsushima Bay and Sendai MEMS City, Japan, in April 2016, where Multiphoton Optics’ Japan Representative, Dr. Lorenz Granrath, presented the company in the exhibition. During this year’s **Hannover Messe** in April, we presented our latest news on Multiphoton Optics LithoX3D product series with its standard and customized high-precision 3D printer series LithoProf3D[®] with its unique additional features LithoDILL3D[®] and LithoBath3D[®], our software package LithoSoft3D[®], and our Prototyping & Engineering support LithoP&E3D. Our exhibition year was closed by exhibiting at the Compamed in Düsseldorf in a joint booth managed by IVAM e.V., presenting Multiphoton Optics’ innovation in the biomedical field at the booth and in a talk.

There are many other highlights we managed with our team, whom I like to thank for the great support and hard work coming along with success. We are looking forward to an exciting year 2017 with many new innovations and surprises we have in our company’s portfolio.

For now, we’d like to thank all of you, customers, friends, and partners of Multiphoton Optics and wish you a peaceful Christmas and a prosperous, successful New Year 2017.

Your Multiphoton Optics’ Team

Eve Multiphoton Optics Team