



EV Group and Silicon Austria Labs Deepen Ties in Optical Technology Research – December 7, 2023

EV Group and Silicon Austria Labs Deepen Ties in Optical Technology Research

Posted Dec 08, 2023 by GoPhotonics Editorial Team

EV Group (EVG), a leading supplier of wafer bonding and lithography equipment for the MEMS, nanotechnology, and semiconductor markets, and **Silicon Austria Labs (SAL)**, Austria's leading research center for **Electronic Based Systems (EBS)**, announced that SAL has received and installed multiple **EVG lithography** and resist processing systems at its **MicroFab R&D cleanroom facility** in Villach, Austria. The installations are part of a strengthened collaboration between the two companies to accelerate the **development and deployment of advanced optical technologies for heterogeneous integration applications**, including wafer-level optics used for micro cameras and micro-mirrors, [diffractive optics](#), and automotive optics used to enable autonomous driving and automotive lighting.

The newly installed EVG systems include the [LITHOSCALE® maskless exposure system](#), the [EVG®7300 automated SmartNIL® nanoimprint](#), and the wafer-level optics system, as well as multiple complementary resist processing systems. These systems join SAL's existing installed base of multiple EVG bonding, mask alignment, and lithography systems, including the first installation of the next-generation 200 mm version of the [EVG®150 automated resist processing system](#), which provides significantly higher throughput, increased flexibility, and smaller tool footprint compared to the previous-generation platform.

In addition, SAL has been working closely with the technology development and application engineering team at EVG's headquarters, including the [NILPhotonics®Competence Center](#), to leverage EVG's equipment and process knowhow and develop processes that are transferrable and scalable to high-volume manufacturing.

According to **Dr. Mohssen Moridi**, Head of Research Division Microsystems at **Silicon Austria Labs**, "We have recently been immersed in a range of cutting-edge R&D projects spanning meta-optics, integrated photonics, and MEMS, necessitating the use of advanced lithography and bonding tools. Through our valued partnership with EVG, we have gained access to tools of exceptional reliability and precision, paramount for successful R&D endeavors. Notably, the EVG7300 SmartNIL system has emerged as a pivotal tool, enabling the mass production of nanostructures for emerging photonics and MEMS devices. Its applications extend to diverse fields such as smart lighting systems, AR/VR, automotive optics, telecommunication, and quantum technology."

SAL was among the first customers to receive the new **EVG7300 system**, which is EVG's most advanced solution to combine multiple UV-based process capabilities, such as nanoimprint lithography (NIL), lens molding, and lens stacking (UV bonding), in a single platform. The EVG7300 was specifically developed to serve advanced R&D and production needs for a wide range of emerging applications involving micro- and nano-patterning as well as functional layer stacking.

EVG's revolutionary LITHOSCALE maskless exposure system addresses lithography needs for markets and applications that require a high degree of flexibility or product variation. It tackles legacy bottlenecks

by combining powerful digital processing that enables real-time data transfer and immediate exposure, high structuring resolution, and throughput scalability. It is ideally suited for rapid prototyping, providing fast turnaround and R&D cycle times.

According to **Thomas Glinsner**, corporate technology director at **EV Group**, “Silicon Austria Labs is a leading research center for optical miniaturization and heterogeneous integration, and is a strategic partner for EV Group. This latest shipment and installation of our advanced lithography and resist processing systems further strengthens our relationship and supports SAL’s ability to develop future key technologies and apply our leading-edge solutions into real-world industrial applications.”

[Click here to know more about EVG®7300 Multifunctional UV Nanoimprint Lithography System.](#)

<https://www.gophotonics.com/news/details/5489-ev-group-and-silicon-austria-labs-deepen-ties-in-optical-technology-research>