

# With Laser Fusion **SCHOTT** offers groundbreaking solutions

As it makes strides towards climate neutrality by 2030 in promoting sustainability through innovative specialty glass, SCHOTT's advanced laser glass assists in replicating nuclear fusion for clean energy. Here, contributing to advancements in science and technology, the company's projects include both energy-efficient tank heating and glass-ceramic powder for high-performance batteries.



Schott is advancing innovations in specialty glass that promote a more sustainable future and is well on its way to achieving climate neutrality by 2030. As part of the UN's International Year of Glass, Matthias Müller, Executive Vice President R&D and New Ventures at Schott, addressed the National Day of Glass Conference in Washington DC on how innovative glass components promote new, clean energy sources and help fight climate change.

Amid rising prices and supply imbalances, sustainable utilities have become an increasingly important global issue. Out of its R&D lab in Duryea, Pennsylvania, Schott is addressing this need by developing advanced laser glass - a core component in replicating the sun's nuclear fusion here on Earth to provide affordable, safe, clean and carbon-free energy.

## **LASER TECHNOLOGIES**

In addition to providing laser glass for the National

Ignition Facility (NIF) at the Lawrence Livermore National Laboratories (LLNL), the company is also advancing the development of laser glasses for new systems like the one currently being designed at the Laboratory for Laser Energetics (LLE) at the University of Rochester. This will likely be the next institution to build a large laser system, which will use Schott glass to accelerate fusion energy innovations in line with the White House's vision for commercial fusion energy. "This conference brings together some of the leading minds across government and industry to address societal challenges, and Schott has the experience and reach across a range of sectors to set new industry standards," said Müller. "Specialty glass has the power to support new energy solutions that are more sustainable. Here we have just scratched the

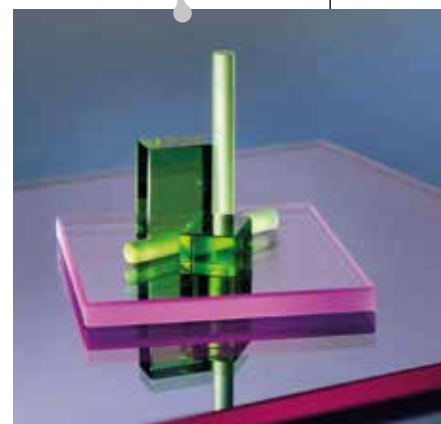
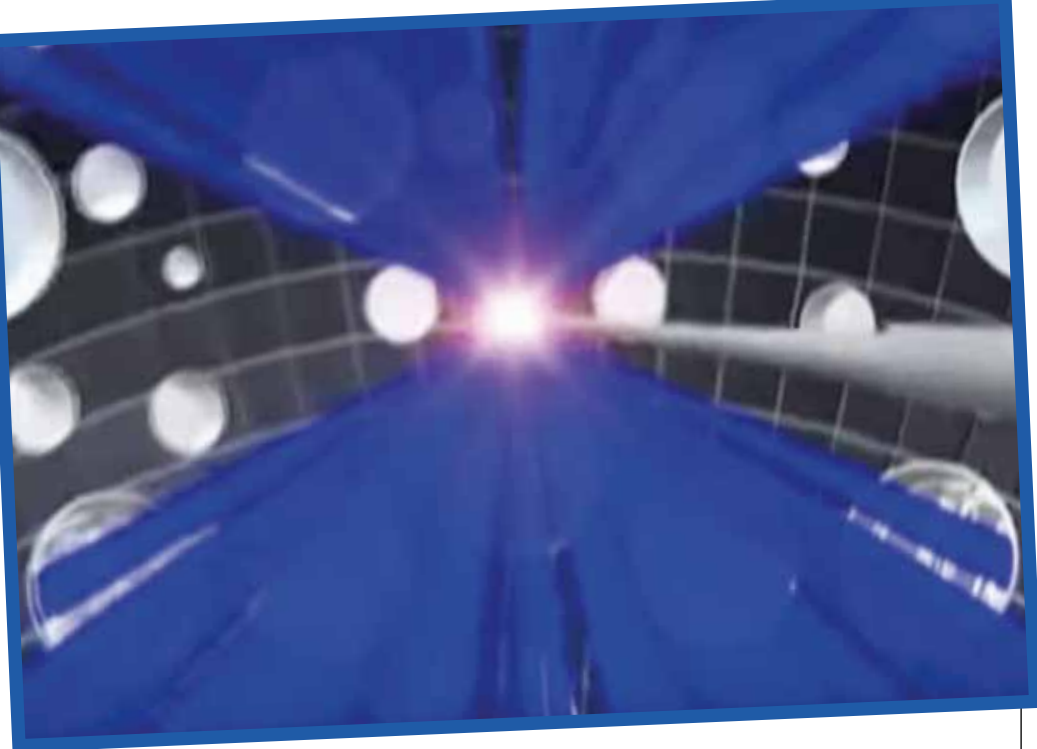
surface of what is possible."

## REVOLUTIONIZING AUTOMOTIVE

Schott has also taken on ambitious projects like developing a technology to heat energy-intensive tanks without using fossil fuels and using its glass-ceramic powder in solid-state ion conductors, a next generation of high-performance batteries that will extend the range of electric cars by 30 percent and reduce charging time by half. Developing new applications is how this leading spe-

cialty glass company shares its passion for glass and contributes to science and technology. Here experts at Schott have a long history of creating innovative products like ultra-thin flexible glass, glass-ceramics, pharmaceutical glass solutions and optical glass. Here, of late, the company has been pleased to bring the international community together to celebrate the contributions of glass to society. The National Day of Glass is among three International Year of Glass events Schott

is sponsoring, including the UN IYOG Opening Ceremony in Geneva, Switzerland, which took place in February as well as the 26th International Congress on Glass in Berlin, Germany from July 3-8.



## PIONEERING - RESPONSIBLY TOGETHER

This trio of attributes characterizes Schott as a manufacturer of high-tech materials based on specialty glass. As the company's founder, Otto Schott is considered not only an inventor but also the pioneer of an entire industry. Indeed opening up new markets and applications with a pioneering spirit and passion is what has driven Schott glass lovers for over 130 years. Represented in 34 countries the company is a super-skilled partner for high-tech industries: Healthcare, Home Appliances & Living, Consumer Electronics, Semiconductors & Datacom, Optics, Industry & Energy, Automotive, Astronomy & Aerospace. In the fiscal year 2021, its 17,300 employees generated sales of EUR 2.5 billion (USD 3.0 billion). Schott AG is owned by the Carl Zeiss Foundation, one of the oldest foundations in Germany, which uses the Group's dividends to promote science. As a foundation company, Schott has its rigorous sense of responsibility for employees, society and the environment deeply anchored within its DNA - a key adjunct to a leading goal among its core values to become a climate-neutral company by 2030.

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glass made of ideas

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