

PHOTONIS CONTRIBUTES CUTTING-EDGE TECHNOLOGY TO SVOM MISSION, ADVANCING OUR UNDERSTANDING OF GAMMA-RAY BURSTS

PRESS RELEASE

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Photonis, part of Exosens, the world leader in amplification, detection and imaging technologies, has supplied cutting-edge Micro Pore Optics (MPO) detection technology to the SVOM (Space-based multi-band astronomical Variable Objects Monitor) mission, to aid in the study of the most distant explosions of stars, the gamma-ray bursts.

Launched on June 22nd by the Chinese Long March 2C rocket from the Xichang launch base, the SVOM mission is the result of the collaboration of two national space agencies; the Centre national d'études spatiales (CNES) of France and the China National Space Administration (CNSA), accompanied by contributions from leading research institutions and universities.

The SVOM mission's sub-payload features The MXT Telescope (Microchannel X-Ray Telescope), used to observe gamma bursts in the soft x-ray range. The MXT is equipped with 40µm sized Micro Pore Optics plates, a state-of-the-art detection technology developed by Photonis, a leading brand of Exosens, alongside the University of Leicester and the CNES. The optic built with those MPOs is coupled to a focal plane camera equipped with X-ray sensitive pnCCD. The MXT instrument will utilize the technology to capture high-resolution images and spectra of gamma-ray bursts, which will provide valuable insights into this phenomenon.

The Micro Pore Optics manufacturing requires high-precision glasswork carried out by Photonis. According to François Gonzalez, SVOM project manager at CNES, *"Making regular micro-channels of this size in glass has been a big challenge. The industrial process requires more than 50 manufacturing steps, each as complex and delicate as the next. Photonis' expertise in glasswork was essential in overcoming this challenge."*

"Exosens is delighted to have contributed to the SVOM mission's success, harnessing our expertise in high-performance optics. Our Photonis brand has designed and manufactured the Micro Pore Optics that enable the MXT telescope to capture high-quality images and spectra of gamma-ray bursts, advancing our understanding of these cosmic events." said Jérôme Cerisier, CEO of Exosens.

The power that emerges from a gamma-ray burst is considerable, which makes them visible at very large distances. The SVOM mission aims to study these events in unprecedented detail, capturing high-resolution images and spectra that will shed light on their origins, composition, and behavior.

The mission's findings will have significant implications for our understanding of the universe.

ABOUT PHOTONIS:

Photonis is a leading product brand of Exosens, a high-tech company with more than 85 years of experience in the innovation, development, manufacture and sale of high-end electro-optical technologies. Photonis offers its customers photo-detection and low light conditions imaging solutions for extremely demanding environments such as Defense & Security, Nuclear Safety, Life Science and Industrial & Non-Destructive testing. Photonis is internationally recognized as a leading brand and a major innovator in its fields with production and R&D sites in Europe and North America.

For more information: [exosens.com](https://www.exosens.com)