



## Edmund Optics® and UltraFast Innovations Partner to Make Extreme Ultraviolet Attosecond Optics More Accessible

March 2, 2022, Garching (Munich), Germany—UltraFast Innovations GmbH (UFI®), a cutting-edge manufacturer of complex laser optics components, has partnered with Edmund Optics®, leading global manufacturer and supplier of optics, imaging, and photonics technology, to be the exclusive provider [UFI's Extreme Ultraviolet \(EUV\) Attosecond Multilayer Mirrors](#) in-stock available for immediate shipping. Designed and produced in atomically-thick coating layers, these mirrors allow very high precision in terms of wavelength/energy, spectral phase and high efficiency.

Ultrafast EUV systems are growing in importance for free electron lasers (FELs) and other quantum optical applications. UFI EUV Attosecond Multilayer Mirrors are designed for steering, focusing, and shaping attosecond pulses. Their multilayer coating is centered at 65eV (19nm) with a 6eV (1.8nm) bandwidth and provides a peak reflectivity of 38% for s-polarized light. These mirrors support EUV pulses with a temporal duration of 330 attoseconds. These mirrors are ideal for attosecond pulse generation and shaping based on high harmonic generation (HHG).

Sourcing complex ultrafast optics such as attosecond EUV mirrors has traditionally been difficult because they often need to be custom designed. Prices and long lead times for small quantities are prohibitive for many. UltraFast Innovations has partnered with Edmund Optics so that UFI EUV Attosecond Multilayer Mirrors are available globally in-stock for immediate shipping, making use of the economy of scale to hold a quantity of in-stock mirrors. This reduces the price and lead time for small quantities, which is especially important for quickly repairing broken systems, exploring new ideas quickly for system prototyping, and quickening the pace of scientific discovery through research.

To learn more about UFI's Extreme Ultraviolet (EUV) Attosecond Multilayer Mirrors, please visit [www.edmundoptics.com/4149](http://www.edmundoptics.com/4149).

**About UFI:**

Ultrafast Innovations GmbH (UFI) is a spin-off from the Ludwig-Maximilians-Universität München and the Max Planck Institute of Quantum Optics. UFI is a premium manufacturer of optics with complex designs, dielectric optics for laser applications, and dielectric/metallic multilayer structures for XUV/soft X-ray applications. Combining broadband coherent sources with unique dispersive technology, UFI also offers the generation and measurement of the shortest pulses in the market in the femto- (UV-VIS-IR) and attosecond (XUV/soft X-ray) ranges. [www.ultrafast-innovations.com](http://www.ultrafast-innovations.com)

**About EO:**

Edmund Optics (EO) is a leading global supplier of optics, imaging, and photonics technology that has served a variety of markets including Life Sciences, Biomedical, Industrial Inspection, Semiconductor, R&D, and Defense since 1942. EO designs and manufactures a wide array of optical components, multi-element lenses, imaging systems, and optomechanical equipment, while supporting OEM applications with volume production of stock and custom products. With locations in more than nine countries across the globe, EO employs just over 1,000 employees and continues to expand. Customers can purchase items by calling 1-800-363-1992, via the catalog, or on the website at [www.edmundoptics.com](http://www.edmundoptics.com).