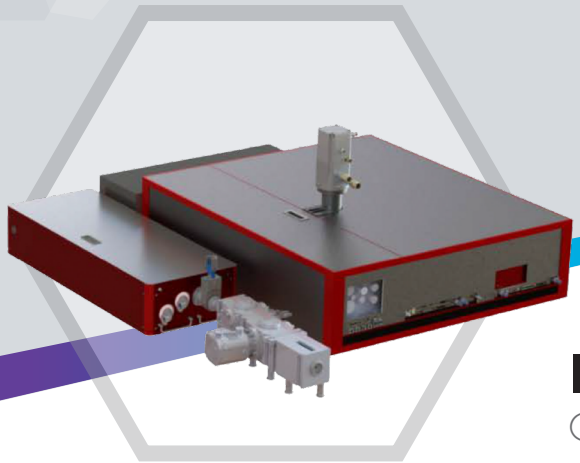
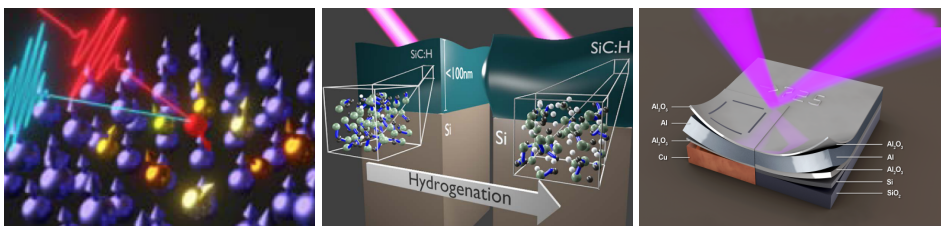
Pantheon



Integrated EUV photon source

Commercially engineered, tunable EUV photon source



Proven performance for ARPES, EUV T-MOKE, pump-probe spectroscopy and nanoscale imaging.
Images courtesy of JILA, University of Colorado, Boulder, USA.

Applications

- Coherent diffraction imaging (CDI)
- Angle-resolved photoemission spectroscopy (ARPES)
- Pump-probe ultrafast spectroscopy
- Magnetic MOKE spectroscopy
- Pulsed energy source for atom probe tomography
- Photoemission electron microscopy (PEEM)

Benefits

- Commercially engineered, tunable EUV light
- EUV light source with laser-like spatial and temporal coherent pulses
- Easy to use pure EUV light ready for your experiment
- Impeccable stability

The extreme ultraviolet (EUV) portion of the electromagnetic spectrum is rich in opportunity for scientific experiments. From nanoscale imaging to ultrafast magnetization dynamics, photoemission spectroscopy, and semiconductor lithography, a multitude of materials and technologies have characteristic energy or transitions that fall in this critical range. Harnessing the power of this portion of the spectrum is now possible in a laboratory setting for scientists who want to focus on the experiment rather than the light source.

KMLabs Pantheon™ platform is a pulsed EUV source, consisting of the necessary instrumentation for the generation of EUV light as well as a beamline to facilitate delivery of pure EUV photons to your user-supplied experimental station. Individual pulses of light from Pantheon have duration in the femtosecond regime and are produced at a repetition rate of 10,000 pulses per second. The photons take the form of a laser-like, coherent, and highly focusable beam.

Generation of EUV photons is accomplished by the high harmonic generation process, using an ultrafast 800 nm beam as the fundamental light source. Downstream of the high harmonic process, Pantheon includes the necessary optics to remove the fundamental light from the propagating beam, leaving only the converted EUV light for the experiment. However, excess fundamental light can also be directed down an alternative beam path(s) to use in a separate experiment, or to facilitate IR/EUV pump-probe measurements.

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