## KMLabs

Company Overview



## The Leader In Ultrafast

Founded in 2003 by award-winning scientists in ultrafast laser technology, Kapteyn-Murnane Laboratories (KMLabs) continues its legacy of innovation.

- 1st cryogenically-cooled ultrafast lasers
- 1st robust 10 femtosecond lasers
- 1st bright tabletop coherent EUV and soft X-ray beams
- >20 Patents
- 12 Science papers; 3 Nature papers; 6 Nature Photonics papers





Ti:Sapphire Oscillator Kit



By Incorporation in 2003

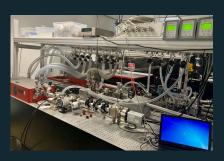
Develop 10TW Laser Launch Wyvern regenerative amplifier



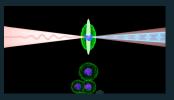
Direct Diode Pumped Ti:Sapphire Amplifier



First commercial EUV-CDI Quantum Microscope



2007



Launch XUUS High Harmonic Generation **EUV Source** 

2011



Sub-100 fs Fiber Laser and OPA

2017

2020



Launch Vacuum Ultraviolet (VUV) product line



Dragon High Average

Power Ti:Sapphire Amplifier

# The Leader In Ultrafast Is Now The Leader In High Harmonics

The new XUUS 5 from KMLabs brings more power and more flux to high harmonic generation of Extreme Ultraviolet (EUV) light.





## The Full KMLabs Quantum Microscope Product Suite

Pantheon extreme ultraviolet (EUV) system provides laser-like radiation up to 100 eV:

#### Applications in:

• EUV semiconductor development

Ultra-high-resolution optical imaging

Advanced materials nano-scale studies

Photoelectron spectroscopy

**RAEA**: 35fs ultrafast laser with tunable rep rates

**XUUS**: high harmonic generator with the highest EUV flux available in a tabletop system

Co-development of end stations

**Arterium**: vacuum beamlines with easy-to-use beam control



## Customers

KMLabs powers customers at the cutting edge of research and development with the strictest performance standards

#### Universities and National Labs

- Enabling research into materials and chemistry
   Industry
  - Semiconductor applications for 13.5nm

#### Government

Continued innovation accelerated by research programs





































## Team



### Matt Harada, President

Experienced CEO, general manager, and financial leader with specialization in high tech small company development. MBA from University of Colorado, BA from Brown University.



## Henry Kapteyn, CTO

Multiple award-winning researcher in the area of ultrafast optical science, Henry is Professor of Physics at the University of Colorado and a fellow of JILA. Ph.D. from University of California at Berkeley, MS from Princeton University, BS from Harvey Mudd College.



## Daisy Raymondson, VP Operations

Over 10 years experience at KMLabs in laser design, research, service and operations. Ph.D. from University of Colorado, BS from UC Davis.



## Thank You

Contact Us: sales@kmlabs.com www.kmlabs.com

