Company Profile

Industry Sector: Biological Imaging and Analysis

Company Overview: Energetiq is a developer and manufacturer of short wavelength light source products that are used to image, analyze and fabricate nano-scale structures. The company's products cover the wavelength range from soft x-ray, through deep ultraviolet, into the visible and near infrared (1-1000nm). Energetiq leverages its experience in making advanced products for the fabrication of leading edge semiconductor devices in the life sciences sector.

Target Market(s): Biologists and biochemists

Key Value Drivers

Technology:
- Electrodeless Soft X-Ray Light Source to enable a Soft X-Ray Water-Window Microscope for Small Laboratories*
- Laser-Driven DUV-Vis Light Source for high throughput Circular Dichroism Spectroscopy

Competitive Advantage: Synchrotron light sources at the national laboratories provide a valuable source of short wavelength photons for imaging and spectroscopy applications, but they are available only to a few users and at high cost. Energetiq has developed two new technologies which offer the possibility of approaching the performance of a synchrotron but in compact, lower cost, lab-scale units.

For Soft X-Ray Microscopy, Energetiq’s Electrodeless Z-Pinch plasma source produces sufficient soft x-ray flux to make whole hydrated cell images with resolution <30nm in ~1 minute, with minimal sample preparation.

For Circular Dichroism Spectroscopy, Energetiq’s LDLS technology produces deep UV flux comparable to a synchrotron, but in a lab-scale package.

Plan & Strategy: Seeking strategic partners

*Technology funded by the NCRR and being commercialized under the NIH-CAP

Management

Leadership:
- Paul Blackborow: CEO
- Bill Holber, PhD: VP Advanced Technology
- Matt Besen: VP Engineering
- Debbie Gustafson: VP Sales and Support

Scientific Advisors:
- Prof. David Attwood: Center for X-Ray Optics, Lawrence Berkeley National Lab and UC Berkeley
- Bruce McEwen, PhD: NYS Wadsworth Laboratory and University of Albany

Product Pipeline

2005  2006  2007  2008  2009  2010

- Soft X-Ray Light Sources
- Semiconductor Applications
- Life-Science Applications
- Laser-Driven DUV-Vis Light Sources
- Semiconductor Applications
- Life-Science Applications