

The Pulse

XENON'S Global Labs

With five plus decades of business under our belt, our customer base runs the gamut of markets and industries, from printed electronics and medical devices to the latest advances in optical storage and beyond. In that time we've had no shortage of unique and (the occasional) challenging applications from reflective light issues to eggshell decontamination.



The most crucial element in developing a successful custom solution is testing. Our dedicated engineers work tirelessly with our customers testing samples in search of a solution for their diverse applications. For over twenty-five years, XENON has collaborated with a number of prominent overseas distributors to build a solid global network of knowledgeable and talented colleagues on four continents and twelve countries, each with XENON equipment onsite. All of XENON's official distributors are qualified and well versed in our equipment and technology; they will be able to provide exceptional support. Many customers have taken the opportunity of testing their samples at a distributor's laboratory and have reported a positive collaborative experience. Earning the designation of

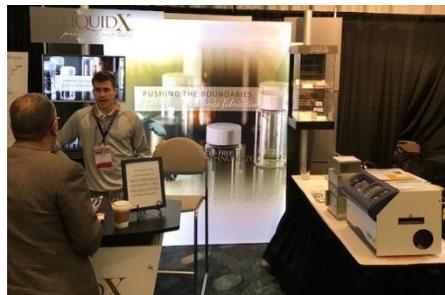
official XENON Distributor gives them unparalleled access to our engineering team's support.

For a complete list of official XENON Distributors, visit our Contact Us page on our website: www.xenoncorp.com/contact. Of course our headquarters in Wilmington, MA are always available. Contact your regional sales representative or official distributor (see bottom right hand corner) to see what XENON (and Pulsed UV) can do for you.

Recent Events

Recently XENON's X-1100 has been making the rounds to various tradeshows and conferences demonstrating its versatility in a wide range of markets and applications. This has resulted in multiple blooming partnerships with reputable companies who have had great success using XENON's technology.

One market in particular the X-1100 has shown to be successful in is Printed Electronics, more specifically sintering of silver ink. Last month XENON partnered with Liquid X at SEMI's 2018Flex Conference in Monterey, CA. At the show, Liquid X, an advanced manufacturer of functional metallic inks, based in Pittsburgh, PA showcased their particle-free inks that provide highly conductive films/traces, excellent adhesion to most commercial substrates and tunable viscosities for use with major commercial deposition methods. Initial testing resulted with a three second curing time and



proved to be as conductive as inks that have used more traditional techniques, such as heat and infrared. Additional testing is on-going and we will update those results in a future edition.

Because the testing, exhibit and presentation was so successful, Liquid X and XENON will repeat this live demonstration at PE Europe, April 11-12, 2018 in Berlin, Germany.

Pulsed Light Discoveries

There are a number of intriguing applications for Pulsed Ultraviolet Light from XENON Flashlamps that are now being commercially pursued. These include:

Breaking down chemical contaminants in water and the air – Some persistent chemical contaminants in water are resistant to the usual methods of abatement. These include N-nitrosodimethylamine (NDMA), Perfluorooctanoic acid (PFOA), Perfluorooctasulfonic acid (PFOS), and Methyl *tert*-Butyl Ether (MTBE). Furthermore, in laboratory experiments light from Pulsed XENON Flashlamps or light having the spectral components of XENON Lamps have been shown to be more effective at reducing these contaminants than ultraviolet light from mercury discharge lamps. Pulsed Ultraviolet Light from XENON Flashlamps has also been demonstrated to be effective in breaking down volatile contaminants in air, including Tetrachloroethylene Trichloroethylene (TCE), and 1,1,1-trichloroethane (TCA).

Increasing antioxidant levels in fruits and vegetables – Just as exposure to Ultraviolet Light from XENON Flashlamps has been shown to dramatically raise levels of Vitamin D in mushrooms and yeast, exposure to the same light has experimentally been shown to raise antioxidant and phenolics levels in freshly-harvested blueberries and elderberries. It has shown to extend shelf life, as well. Red table grapes exposed to short wave Ultraviolet Light had increased levels of stilbenes. Ultraviolet exposure to mangoes improved their shelf life, color, firmness, and carotenoid content.

Happenings Around Town

Visit Boston's Museum of Fine Arts in Honor of Van Gogh | 3/30

Celebrate 19th century Artist Vincent Van Gogh's birthday by viewing his artwork housed at the Museum of Fine Arts from 10:00a-10:00p on Friday, free - \$25.00.

Swan Boats are Open! | 4/14 – 9/3

Take a ride on the Swan-Side! At the Public Garden Lagoon, your Swan Boat driver will take you and your Swan for a fifteen minute swim. \$4.00, hours vary, weather permitting...

Boston Marathon | 4/16

Cheer on your friends and 30,000 other runners as they start at Hopkinson Square and finish in Copley Square for the annual Marathon, bearing New England's unpredictable weather. Free

Let the **PULSED LIGHT EXPERTS** develop a solution for your application needs

Coming Events

- LOPE-C | Munich, Germany | March 14-15, 2018 | Hall B0, Booth 411
- Printed Electronics Europe | Berlin, Germany | April 11-12, 2018 | Booth W10

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