

The History of Crystal IS

Crystal IS, an Asahi Kasei company, is a U.S.-based manufacturer of high-performance LEDs that emit ultraviolet (UV) light. Our UVC LEDs are used in a variety of applications from water disinfection to life science measurements.

Innovating for Tomorrow

Leo Schowalter and Glen Slack, professors from Rensselaer Polytechnic Institute (RPI), founded Crystal IS in 1997 to develop aluminum nitride (AlN) substrate technology. Through the support of RPI, Schowalter and Slack were able to start Crystal IS in the RPI Incubator program, aligned with the institution's entrepreneurial emphasis.

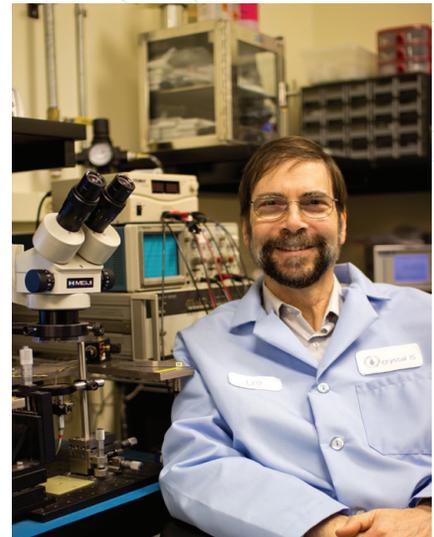
By combining Slack's experience with AlN crystals and Schowalter's experience in semiconductors, they realized they could leverage the potential of the substrate for more reliable nitride semiconductor devices. Our AlN substrates have less defects than other nitride substrates—less defects in the layers creates a more efficient, higher powered device.

Breakthroughs Open Doors

Our first major breakthrough came in 2001 with the application for patents on crucible technology and growth rate control for large crystals. For the first time, we grew AlN crystals that were over a centimeter in diameter, which had never been accomplished, and at growth rates that were practical for manufacturing. This positioned Crystal IS as a true leader in AlN crystal growth technology. Through a series of grants and government contracts, we grew our staff and resources at the RPI incubator building in Watervliet, NY.

After winning the Tech Valley Business Plan competition in 2003, Crystal IS invested in technology, facilities and headcount to further research in AlN substrate technology. We leveraged the experience and connections gained through this business competition into investor relationships to fuel the company growth.

Crystal IS developed a strong network of investors and moved from the RPI Incubator building to the current headquarters in Green Island. The Capital Region's focus on high technology and innovative start-ups supported our growth through partnerships, connections and community relations.



Transitioning from R&D to Product

In 2008, it was clear that our crystal growth technology was sound, so we switched our focus from research and development to defining market applications for our products. The applications for AlN substrates are numerous. We chose to focus on markets where our technology offered a true competitive advantage for commercial introduction of this new material system.

Our UVC LEDs are ideal for deactivating chlorine-resistant protozoa, bacteria and viruses. This makes them a viable clean technology solution for sterilization and purification to combat infectious diseases. Our customers replace their existing mercury UV lamps used in water, air, food and healthcare industries with our efficient, environmentally-friendly UVC LEDs. Our UVC LEDs are also used in scientific and analytical instruments to measure the purity of water, air, surface and biological samples.

The Asahi Kasei Family

In December 2011, Crystal IS became an Asahi Kasei company, enabling us to expand our Green Island facility, operations and resources. Asahi Kasei is a multi-billion dollar company and one of Japan's largest industrial technology companies. We further Asahi Kasei's mission of serving the global community through commitment to improving life by delivering products which enhance the comfort and health of people living around the world.

We invite you to learn more about our UVC LEDs at cisuvc.com.



70 Cohoes Avenue
Green Island, NY 12183
U.S.A.

www.cisuvc.com
518.271.7375
sales@cisuvc.com