

To Whom It May Concern

Photo electron Soul, a company established at the Nagoya University, has received an order from a semiconductor-E-beam Inspection maker.

~The company has achieved a probe current in the nanoampere (nA) order, which will significantly reduce the inspection times.~

Photo electron Soul Inc. (Headquarters: Nagoya, Aichi Prefecture; CEO: Takayuki Suzuki; hereafter, referred to as Photo electron Soul), which is a company established at Nagoya University, has received an order for an electron-beam generator from a semiconductor-E-beam Inspection maker.

During a pilot experiment jointly conducted with the same manufacturer, we achieved a probe current of the nA order, which is at least 10 times higher than that generated by the existing products. This will significantly reduce the inspection times, which currently constitute a serious problem associated with the production of semiconductors.

■ **Order received from a semiconductor-E-beam Inspection maker**

The significant amount of time required for performing inspections using existing technologies has become a serious problem in the field of semiconductor production because of the continuing refinement and multi-layering of the semiconductor devices. Even though semiconductor-E-beam Inspection makers have continued to invest substantial amounts of capital and attempted to utilize several methods to reduce the inspection times, a definitive solution has not yet been obtained.

The application of electron beams (e-beams) is not limited to semiconductor production but is also used in various other industries. However, no technological innovations have been observed in the industrial application of e-beams in the previous 50 years, and the existing e-beam technology is reaching its limits in terms of performance improvements. Photo electron Soul, a company established at the Nagoya University, has been using its unique and innovative e-beam technology to develop an “e-beam generator” for solving this fundamental industry problem. We are delighted to announce that we have received an order for an e-beam generator from a semiconductor-E-beam Inspection maker with whom we have been conducting joint pilot experiments.

■ **We have achieved a probe current of the nA order, which will lead to significant reductions in the inspection times**

During the pilot experiments that have been jointly conducted with a semiconductor-E-beam Inspection maker, Photo electron Soul achieved a probe current in the order of nA, which is at least 10 times higher than that generated by the existing products. In semiconductor inspections using the e-beam method, the scanning speed of the e-beam can be improved by increasing the probe current. This further significantly reduces the inspection times, which currently cause serious problems in semiconductor production.

Note that we cannot disclose the name of the semiconductor-E-beam Inspection maker that placed the order, its address, the price of the order, or the number of ordered products during product development for security reasons.

■ About Photo electron Soul

Photo electron Soul is a company established at the Nagoya University based on the technology developed at this university over the previous three decades. It is the only company in the world exhibiting strength in “semiconductor–photocathode technology,” which is the technology used to generate the e-beam. Photo electron Soul will continue to lead in terms of significant innovations in diverse industrial fields, including electronic devices, manufacturing, and life sciences, by creating products and services based on a combination of several different technological fields on the basis of the e-beam technology developed in academia over several years.

About us

Name	Photo electron Soul Inc.
Representative	CEO: Takayuki Suzuki
Development Headquarters	Furo-cho, Chikusa-ku, Nagoya, Inside Nagoya University
Business	Research, development, production, and sales of electron-beam generators and components
Capital	877,477,000 Yen (Incl. capital reserve)
Established	July 1st, 2015
HP	http://photoelectronsoul.com/

Contact

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End of Press Release