



KONICA MINOLTA

News Release

Research and development of inspection technology for silicon-type solar cells selected for Miyagi Prefecture's R&D proposal solicitation

Developing reuse indicators through hyperspectral imaging

Tokyo (October 14, 2026) - Konica Minolta, Inc. (Konica Minolta) today announced that it submitted a research proposal to Miyagi Prefecture and was selected for the "Miyagi Environment-Related Research and Development Support Project Subsidy Program," which supports research and development that contributes to reducing environmental impact such as carbon dioxide emissions.

In this research and development, the Company anticipates that by using hyperspectral imaging (HSI) to predict the aging degradation of silicon solar cells and measure harmful substances contained within the glass, it will be possible to determine whether they can be reused. This is expected to contribute to the formulation of reuse standards for silicon solar cells.

Research Themes

Building a silicon solar cell ecosystem

Details of Research

Although the spread of silicon-based solar cells is progressing domestically and internationally to expand the introduction of renewable energy, it is expected that a large number of silicon-based solar cells will be discarded after 2030 as product warranties for previously installed silicon solar cells expire. Therefore, domestic government agencies, local governments, universities, and private companies have begun efforts to address the environmental impact of mass disposal.

Furthermore, although silicon-type solar cells can be reused in terms of performance, the lack of appropriate indicators that serve as criteria for product lifespan has not been established, which is a major issue. As a result, excessive disposal or resource outflow abroad is believed to lead to environmental destruction and hinder resource circulation.

Therefore, by measuring the condition of substances across a wide wavelength range using HSI cultivated by Konica Minolta, it is believed that the reusability of silicon-type solar cells will be able to be determined by estimating their remaining product lifespan, including the degree of deterioration, and by measuring the content of hazardous substances.

Through this, the Company expects its technology to contribute to solving social issues in the circular economy.



Hyperspectral cameras provided by Konica Minolta

Konica Minolta's Hyperspectral Imaging

In Konica Minolta's sensing field, based on optical technology cultivated in the camera business, the Company provides a variety of products and solutions in the fields of "light source color measurement" and "object color measurement," contributing to ensuring quality and improving productivity at customers' manufacturing sites.

In 2020, Konica Minolta acquired Finland's Specim, Spectral Imaging Oy Ltd., a leading company in the HSI market, acquiring new HSI technologies to strengthen our business competitiveness. The measurement instrument business using HSI technology aims to expand applications in inspection fields such as recycling by leveraging its ability to detect subtle differences in color and material properties that are invisible to the human eye.

Konica Minolta will provide a variety of high value-added products and solutions that enable high-precision measurement of light and color, balancing the formation of a circular society with the creation of new businesses.

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