Professor T. Adschiri --Nano Level Mixing of Ceramics and Polymers - A Path for Highly-functional Materials --

NIKKEI Newspapers has evaluated major research and development results that have been released for the year. The company has completed Technology Trend Survey.
Research results in medical care and biotechnology including laboratory monkeys research have ranked high in the survey, reflecting a society's keen interest to health and medical care.

Tohoku University's technology to develop new materials was in the tenth place amid high evaluation of results in medical care and biotechnology. Tohoku University has successfully hybridized ceramics and polymers in nano level by using supercritical water technology, although ceramics and polymers can not mix typically.

DENKI KAGAKU KOGYO has made a trial model of light semiconductor substrate with high heat conductivity by using the new technology. It will be applicable to auto components, and the company schedules shipment of samples in a couple of years. Tohoku University has worked on a technology to fabricate transparent flexible hybrid films by mixing polymer and ceramics to develop high efficiency anti-reflection films for display devices. The university's technology received a high reputation for its being highly applicable.

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