

Korea develops fluorescent molecular sensor for detecting bad cooking oils

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A team of researchers at Pohang University of Science and Technology (POSTECH) in South Korea, often called “fluorescent alchemists”, has developed a straightforward and highly sensitive technology that detects bad cooking oils.

This sensor uses a dual turn-on method that detects both the viscosity and acidity that inevitably change during the cooking process. It is able to accurately measure how long the cooking oil was used regardless of the ingredient, and even detects a small amount of bad oil mixed with fresh oil.

The research team has also developed a portable platform named Bad Oil Sensing System (BOSS) for immediate use, which is expected to be a widely applicable tool to monitor the quality of cooking oil by consumers and the food industry.

This study was conducted with the support from the Institute for Basic Science (IBS) and a patent for the technology has been recently registered.

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