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## “Nanomaterial-based SERS- and electrochemical-sensors for analysis of chemical contaminants in food and water”

Our group has developed low-cost SERS sensors by using inexpensive substrates including electrochemical resurfacing of optical disc, Au-AgNPs coated cloth substrate, polymer nanostructures on Au thin film to detect trace contaminants in pharmaceutical drugs and antibiotics.

The  $\text{H}_2\text{O}_2$  electrochemical sensor consisting of a AuPtNPs-modified electrode was able to measure  $\text{H}_2\text{O}_2$  contamination in raw cow milk at the Dairy Farming Promotion Organization of Thailand. Moreover, the Au nanoplate modified electrode was developed for the simultaneous determination of Cd, Pb, As, and Hg contamination in water, herbs, and soil.

Date: March 17 (Fri), 16:00 – 17:00, 3月 17日

Location: Seminar Room M-442C

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