LSPR-based portable biosensor using aptamer for the detection of bacteria in pork

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In this study, the development of portable Plasmnonic-active biosensor device for detecting the bacterial cell with high sensitivity level was using a specific binding of the aptamer. Plasmnonic-active substrate is available biosensor portable device developed by the optical system design as the transmissive mode of light could be produced as a compact portable system is possible. Was introduced into the aptamer to the sensitive detection of a single Salmonella in a food poisoning of the marker from the actual food confirmed the LOD of about 104 cfu/mL detection strength through the element in this study. The plasmonic portable bio-detection devices through these results are expected to actively take advantage of the market that can easily diagnose the extent of food spoilage in the agri-food industry.