# 3rd Photonics Seminar

**Date** **2018.11.14 (Wed) 16:00～17:00**

**Place** Rm213, Photonics Center, Osaka University

**Title** 「**Detection of Ochratoxin A, from aptasensor to innovative portable device**

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Abstract:
The analysis of foods to assess the presence of chemical contaminants is a practice of crucial importance for ensuring food safety and quality. Mycotoxins, are toxic metabolites produced by fungi, mostly by saprophytic moulds on different foodstuffs. Ochratoxin A is largely present in food and has an harmful effect on human and animal health. The classical techniques have some drawbacks. In order to address these issues, various methods have been developed. Electrochemical and optical aptasensors are promising methods. They offer the advantages of low cost, low power consumption, and high stability. This presentation mainly focuses on the methods development in the sense that how OTA can be detected from new emerging bio-analytical approaches.
Due to the specifications imposed by the cocoa company, in a second step functional and ready-to-use prototype was adeveloped A light-emitting diode (LED) (Roithner LaserTechnik) excites the OTA contained in the sample and the fluorescence is collected by a monochrome camera (IDS imaging). Instrumentation and acquisition of the different parts of our device have been developed on Labview.
We discuss the advantage and drawback of each method.

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