



Contribution ID: 121

Type: **Talk (preferred)**

Time-resolved photoionization detection of a single Er^{3+} ion in silicon

Tuesday 13 December 2022 11:30 (15 minutes)

We investigate the charge dynamics following the optical excitation of a single erbium ion inside a silicon FinFET. We observe a latched charge signal that depends on gate voltage, optical intensity and optical pulse length.

Author: Dr DE BOO, Gabriele (UNSW Sydney)

Co-authors: Dr JOHNSON, Brett (RMIT); Prof. YIN, Chunming (USTC); Dr HU, Guangchong (UNSW Sydney); Prof. MCCALLUM, Jeff (University of Melbourne); Dr SELLARS, Matthew (ANU); ROGGE, Sven (UNSW Sydney)

Presenter: Dr DE BOO, Gabriele (UNSW Sydney)

Session Classification: Conference on Optoelectronic and Microelectronic Materials and Devices

Track Classification: COMMAD: COMMAD: Photonic integrated circuits, semiconductor lasers, LEDs, photodetectors, and modulators