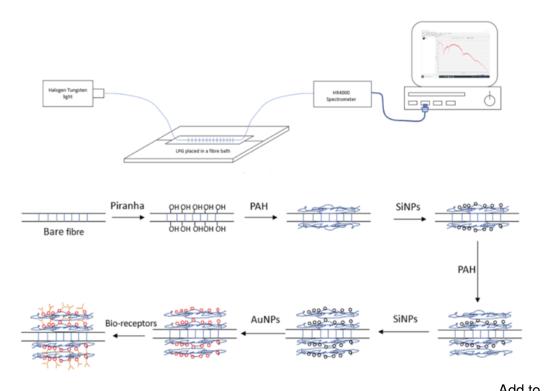




Optics and Photonics Group Lunchtime Seminar

"Label-free immunosensors based on long period grating devices"

Peizhou Wu



13:30 Wednesday 16 March 2022 C24 Coates building All Welcome

http://optics.nottingham.ac.uk/wiki/seminars_2022

"Label-free immunosensors based on long period grating devices"

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13:30 Wednesday 16 March 2022
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All Welcome
MS Teams link

Antibody detection plays an important role in medical diagnosis. Current detection of antibodies mainly relies on ELISA, which requires experienced technicians and takes long time to get a result. Long period grating (LPG) is an optical device, which responds to the change of external refractive index (RI). It owns the advantages of light weight, small size, and immunity to electromagnetic interference. A functional film is deposited on the surface of LPG. Specific antibody can bind to the functional film and changes its RI. LPG can detect the change of RI on its surface and tell the concentration of antibody in solution. It is a promising platform to implement point-of-care antibody tests, which can be more labour-saving and less time-consuming than ELISA.