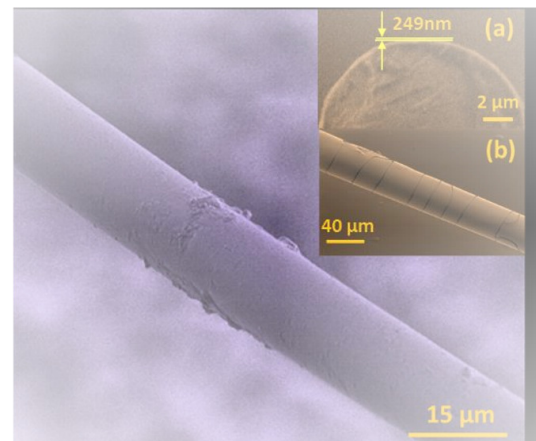
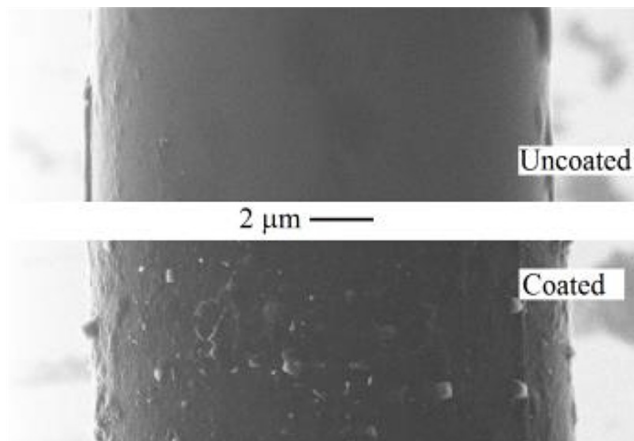


Optics and Photonics Group Lunchtime Seminar

“Optical fibre interferometers and its sensing applications - from macro to micro world sensing”

Qiang Wu

Faculty of Engineering and Environment, Northumbria University



12:00pm Wednesday 16th May 2018
203 Tower Building
All Welcome

http://optics.nottingham.ac.uk/wiki/Talks_2018



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Optical fibre interferometers are instruments that can make very precise measurements of objects using the interference pattern of two waves of light, which are one of the promising sensing candidates for applications in military navigation and tactical surveillance, security, environmental and structural health monitoring and life health/medical diagnostics. A Singlemode-multimode-singlemode (SMS) fibre structure is a typical type of fibre interferometer, where a short length of multimode fibre (MMF) is fusion spliced between two singlemode fibres. The SMS fibre structure is sensitive to a number of physical parameters, which can be used as sensors and couplers. Tapered SMS structures have proved to be able to improve sensitivity significantly and have been applied in new applications including bio- and chemical sensing.

Dr. Wu is an Associate Professor with Faculty of Engineering and Environment, Northumbria University, Newcastle Upon Tyne, United Kingdom. His research interests include optical fiber interferometers for novel fiber optical couplers and sensors, nanofiber, microsphere sensors for bio-chemical sensing, the design and fabrication of fiber Bragg grating and long period grating devices and their applications for sensing, nonlinear fibre optics and surface plasmon resonant. Dr. Wu has over 200 publications in the area of photonics. He is an Editorial Board Member of Scientific Reports (Nature Group) and an Associate Editor for IEEE Sensors Journal, a Committee Member of Holography and Optical Information Processing Committee, The Chinese Optical Society.