GUEST LECTURE

Seeing molecules in ambient real-time conditions by trapping light to the atom scale

FUSION
CHEMISTRY SOCIETY

"We have long taught students that light cannot be focussed tighter than its wavelength, meaning that watching individual nanoscale objects is really tricky. However this turns out not to be true when we involve 'coinage metals' like gold and silver, and our recent work shows how light can be trapped to the 1nm scale and below. I will show in this talk how this is possible, and what we start seeing when watching catalytic and electron-transfer processes molecule-by-molecule. Many puzzles emerge that are only just being unpicked, combining ideas from chemistry, physics, material science, biotechnology and engineering. I will also discuss our recent ideas and developments in making light-powered nanomachines that can move."

PROFESSOR JEREMY BAUMBERG
Director of the Nanophotonics Centre, University of Cambridge

Wed 14 October 4.30pm