

Showcasing research from Louise Natrajan's laboratory, School of Chemistry, University of Manchester, United Kingdom in collaboration with the Lasers for Science Facility, Rutherford Appleton Laboratory, Oxford, United Kingdom.

Fluorescence spectroscopy and microscopy as tools for monitoring redox transformations of uranium in biological systems

The article describes, for the first time, how a combination of luminescence spectroscopy, microscopy and lifetime image mapping can offer new insights into the bioreduction of Geobacter sulfurreducens with uranyl (UVIO22+). Geobacter s. is a common bacterium found in sub surface soils and is being actively researched for its ability to enzymatically reduce environmentally mobile toxic radionuclides, here uranium, to their insoluble and therefore immobile counterparts, for the remediation and clean up of nuclear wastes.

## Chemical Science See Louise S. Natrajan et al., Chem. Sci., 2015, 6, 5133.

