Controlling Polarons in Organic Semiconductors: From Charge Generation to Device Function

Biography (Free format)

Professor Ji-Seon Kim FInstP FRSC

Ji-Seon Kim is Professor of Electronic Materials in the Department of Chemistry at the University of Oxford. She joined Oxford in 2025 after an academic career at Imperial College London, where she progressed from Lecturer to Professor of Solid State Physics. Prior to Imperial, she worked at the University of Cambridge as a PhD student, Research Associate and EPSRC Advanced Research Fellow.

The Kim group focuses on sustainable molecular semiconductors, mixed electronic/ionic conductors and organic/inorganic hybrids for future sustainable energy, optoelectronic and bioelectronic technologies. By linking molecular design, structure and electronic function, her group reveals how charges are generated, transported and lost in complex materials, providing design principles for efficient, stable and scalable solar cells, photodetectors, sensors and bioelectronic devices.