

Marina FREITAG – CV

Professor Marina Freitag is a Royal Society University Research Fellow and Chair of Energy at Newcastle University. Her pioneering work on dye-sensitized solar cells and indoor photovoltaics has established her as a leader in sustainable energy research. With a Ph.D. from Rutgers University and experience at EPFL and Uppsala University, Prof. Freitag has consistently advanced the field of solar energy conversion. Her research focuses on developing highly efficient, sustainable photovoltaic technology for powering AI-based Internet of Things devices. Prof. Freitag's innovations have led to record-breaking efficiencies in ambient light conditions, pushing the boundaries of what's possible in low-light energy harvesting. With prestigious accolades like the 2022 Royal Society of Chemistry Harrison-Meldola Memorial Prize, and Göran Gustaffsson Young Researcher Award 2019, Prof. Freitag's contributions to renewable energy are invaluable. Freitag's commitment extends beyond academia, engaging the public through various outreach workshops and exhibitions, nurturing a broader understanding and adoption of renewable energy solutions. Prof. Freitag's multidisciplinary approach, combining materials chemistry, device physics, and artificial intelligence, is opening new avenues in energy materials research. Her vision of harnessing diffuse light for structured information processing is driving the development of autonomous, energy-efficient technologies with far-reaching implications for smart infrastructure and sustainable computing.