

Delegation - Australia



James Scott
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James Scott recently submitted his Ph.D. thesis on fluorescence in carbon nanomaterials at Griffith University and is awaiting examination. James is a multidisciplinary researcher straddling chemistry, physics, and materials engineering with both experimental and theoretical thrusts to his output.

He is particularly interested in achieving greater control of fluorescence emission spectral profiles to improve carbon nano-dots performance in applications such as sensing, bio-imaging, LEDs for displays, and for potential use as single photon emitters for quantum information technologies.

Here, James will present his theoretical quantum chemistry work detailing how geometry modifies the emission energies of polycyclic hydrocarbons, a class of molecule closely tied to the fluorescence emissions of many carbon nanomaterials, and organic semiconductors.