

EES Catalysis

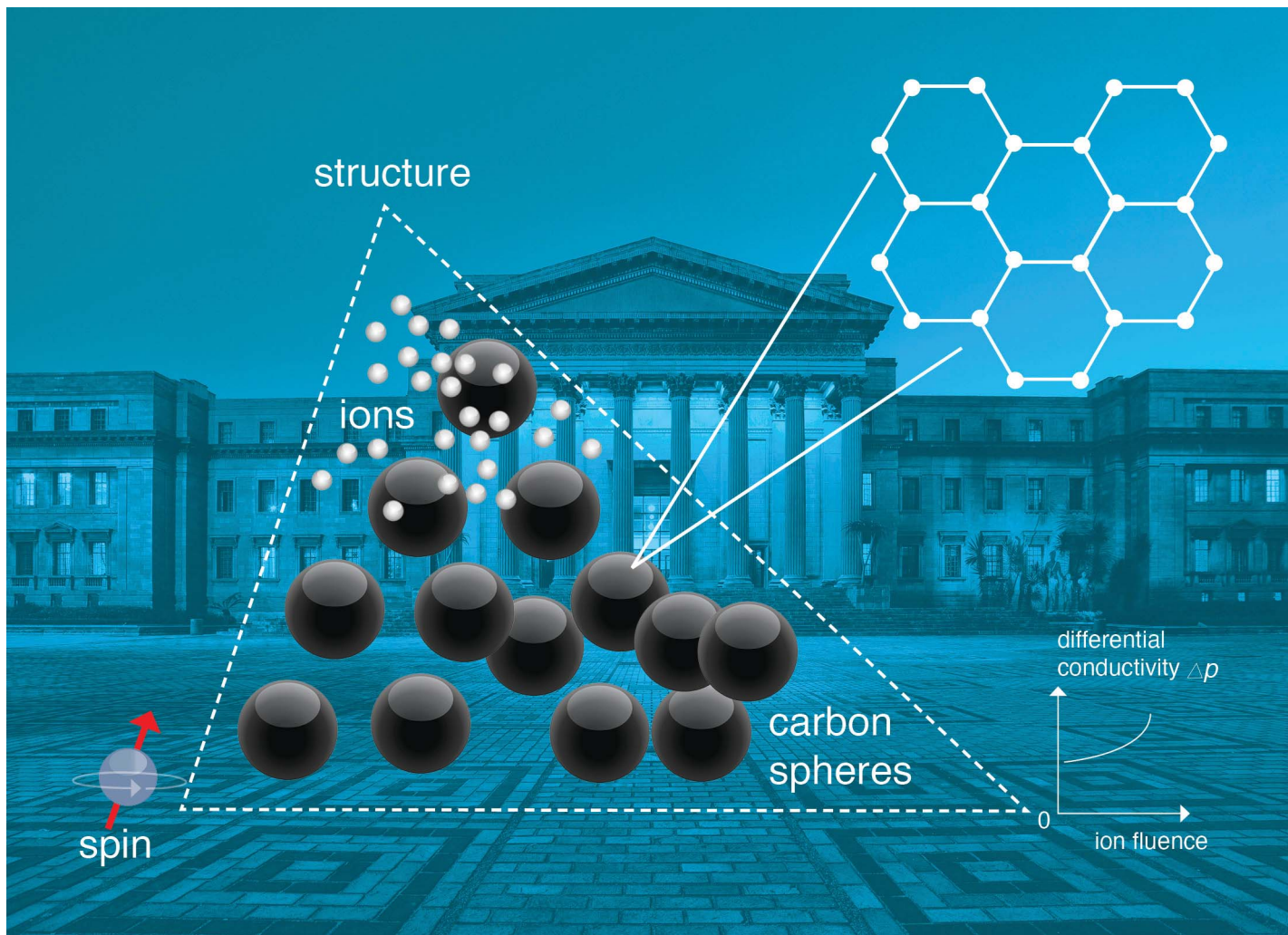
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**Fundamental questions
Elemental answers**



Showcasing research from Professor Coville's laboratory, School of Chemistry, University of the Witwatersrand, Johannesburg, South Africa.

Modulating properties of solid carbon nanospheres *via* ion implantation with hetero-ions

Carbons doped with very low heteroatom concentrations, for fabrication of next generation microelectronics, constitutes a holdup faced by most doping techniques. Carbon spheres (~200 nm) doped with Ne, B and N, using a specialized end-station adapted for powders has been used in this study. Various characterisation studies showed that the carbon spheres retained their morphology after doping. Magnetic properties of the solid carbon spheres were dependent on the implantation time (7 h and 14 h) and the type of ion implanted.

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As featured in:



See Neil J. Coville,
Trevor Derry *et al.*,
Nanoscale Adv., 2025, **7**, 6451.