

Abstract for an Invited Paper
for the MAR10 Meeting of
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Graphene Update

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I will overview the latest progress of our group in Manchester. This will cover such subjects as intrinsic magnetism in graphene, better understanding of its scattering mechanisms, electron transport in suspended devices with mobilities $>1,000,000 \text{ cm}^2/\text{Vs}$ (including the fractional quantum Hall effect in single and double layer graphene) and properties of graphene's chemical derivatives such as graphane.

For reviews on graphene, see A. K. Geim, K. S. Novoselov. *Nature Mater.* **6**, 183 (2007). A. K. Geim, *Science* **324**, 1530 (2009). A. H. Castro Neto *et al*, *Rev. Mod. Phys.* **81**, 109 (2009).