(Supra)Molecular Quantum Spintronics

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Magnetic molecules have recently attracted interest in view of their potential to realize nanometresized (single-)molecular spintronic devices by a combination of bottom-up self-assembly and top-down lithography techniques. We report herein on the controlled generation of magnetic molecular nanostructures on conducting surfaces, partially self-assembled on sp²-carbon nano-structures (SW-CNTs, graphene, etc.), or between nano-gap gold electrodes. The obtained supramolecular devices are investigated in view of their I-V-characteristics by means of UHV- and solution-based scanning probe, break junction and electromigration techniques. [1-6]



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