Toward Regular Arrays of Dipolar Molecular Rotors

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Regular arrays of artificial dipolar molecular rotors attached to a surface or contained in a thin layer are of interest for applications in nanoelectronics. Two approaches to such two-dimensional materials will be described. In one, the rotors are present as guests on the surface of a host material that contains suitably arranged channels. In the other, the rotors are mounted at the lattice points of a synthetic two-dimensional grid prepared on the surface of a liquid.