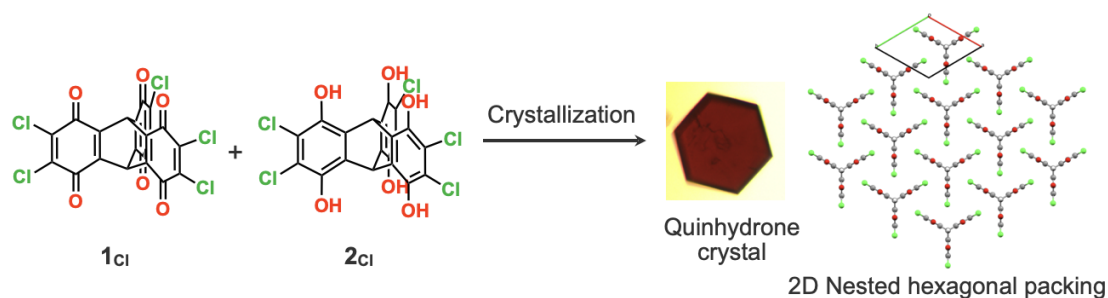


Synthesis, Structure, and Properties of Exfoliable 2D Quinhydrone-Type Complexes Consisting of Propeller-Shaped Molecules

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The construction of two-dimensional organic materials by molecular self-assembly remains a big challenge. Recently, we have reported that a perchlorinated triptycene-tribenzoquinone^[1] (**1**_{Cl}), when mixed with its hydroquinone derivative (**2**_{Cl}), can form a crystalline assembly consisting of layered nanosheets that feature a nested hexagonal packing structure.^[2] Dielectric measurements show that the crystals exhibit anisotropic dielectric responses in the in-plane direction. We also examined the exfoliation of these layered crystals and found suitable conditions to obtain micrometer-scale monolayer and a few-layered films. In this presentation, we will report details of the above experimental results, as well as the structure and properties of the resulting nanosheets.



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