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*Electroactive MOFs based on quinone/hydroquinone redox chemistry*Maka Vijay Kumar<sup>1</sup>, JaruguNarasimha Moorthy<sup>1</sup><sup>1</sup>Department Of Chemistry, Indian Institute Of Technology Kanpur, Kanpur, India

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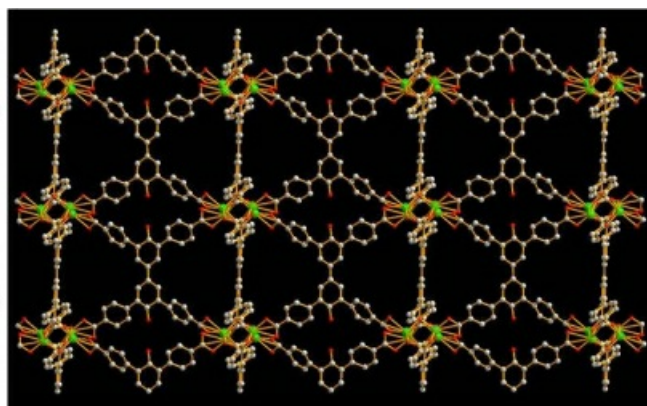
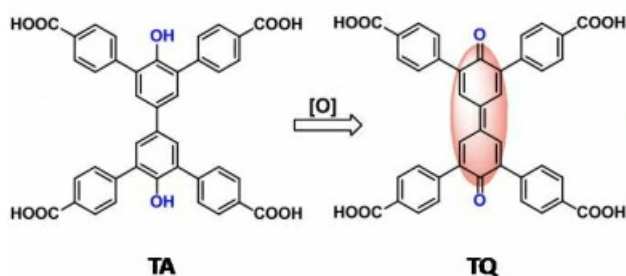
The redox chemistry of quinones and hydroquinones is very important in biological systems. The therapeutic efficiency as well as toxicity of anthracycline anticancer drugs, a class of anthraquinones, is governed by their electrochemical properties. In general, quinones serve as important functional molecular components in diverse biological systems.

To exploit the redox chemistry of quinone/hydroquinone and develop electroactive functional MOFs, we have undertaken a systematic approach based on de novo design of organic linkers and their synthesis. The tetraacid TA shown in Figure-1 is representative of some systems that we have begun to explore for metal-assisted self-assembly. We successfully synthesized some MOFs of the tetraacid with closed-shell metal ions such as Zn<sup>2+</sup> and Cd<sup>2+</sup>. We are currently exploring redox properties of these MOFs. Results of these investigations will be presented.

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