

Supporting Information

Reversible iodine adsorption by alkali-TCNQ salts with associated changes in physical properties

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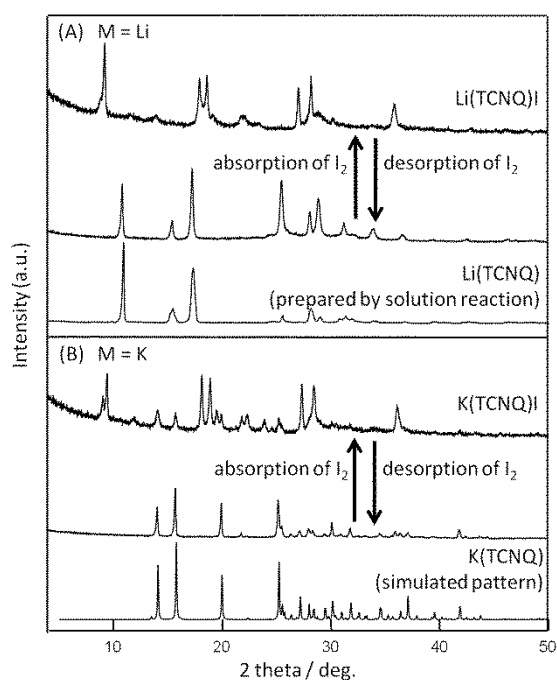


Fig. S1. Changes of the powder XRD patterns of M(TCNQ) caused by reversible iodine adsorption for the salts: (A) Li and (B) K.

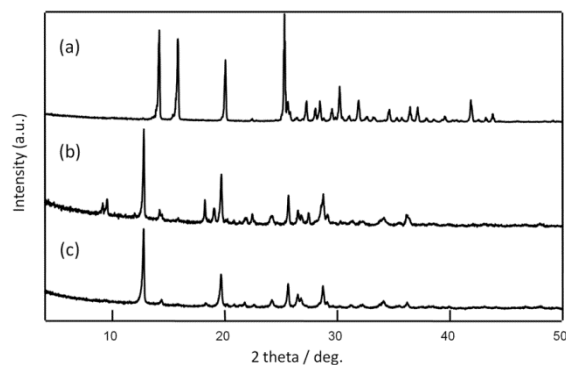


Fig. S2. Powder XRD patterns of (a) K(TCNQ) prepared by solution reactions, (b) an over-doped salt obtained by storing K(TCNQ) in an iodine atmosphere for one month, which contains a small portion of K(TCNQ)I, and (c) the over-doped salt obtained by stirring a dispersion of K(TCNQ) in a hexane solution of iodine for two days.

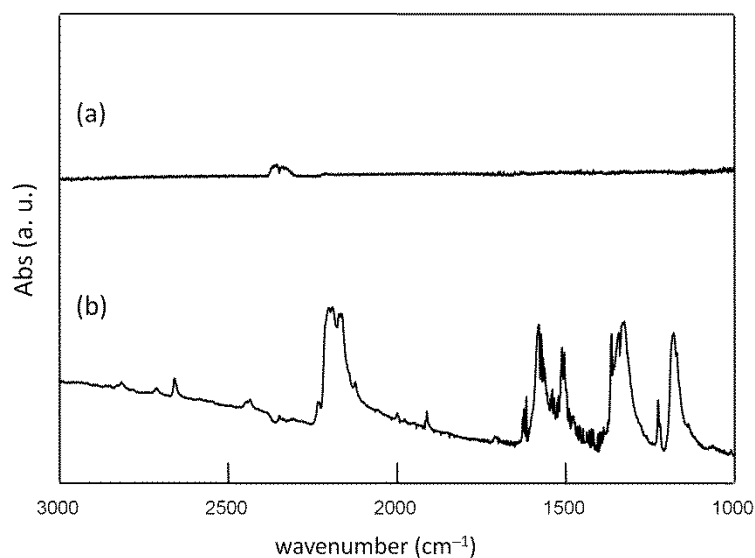


Fig. S3. IR spectra of (a) Na(TCNQ)I prepared by solid-state reactions and (b) Na(TCNQ) obtained by annealing Na(TCNQ)I.

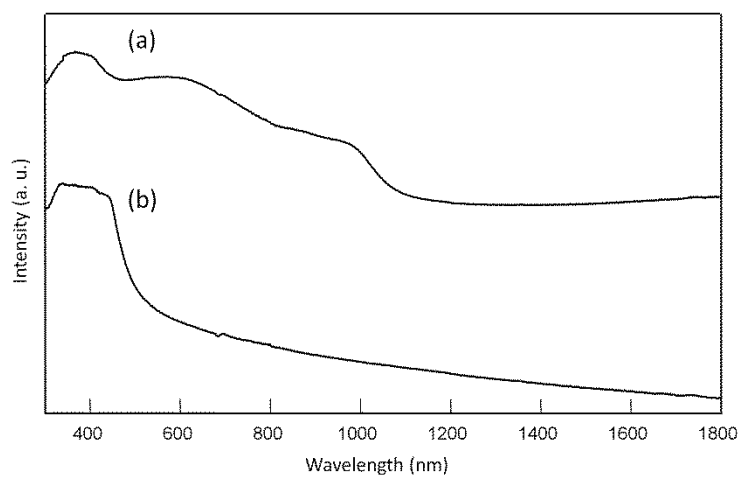


Fig. S4. Solid-state UV-vis-NIR absorption spectra of (a) $\text{Rb}_2(\text{TCNQ})_3\text{I}_2$ prepared by solid-state reaction and (b) TCNQ.

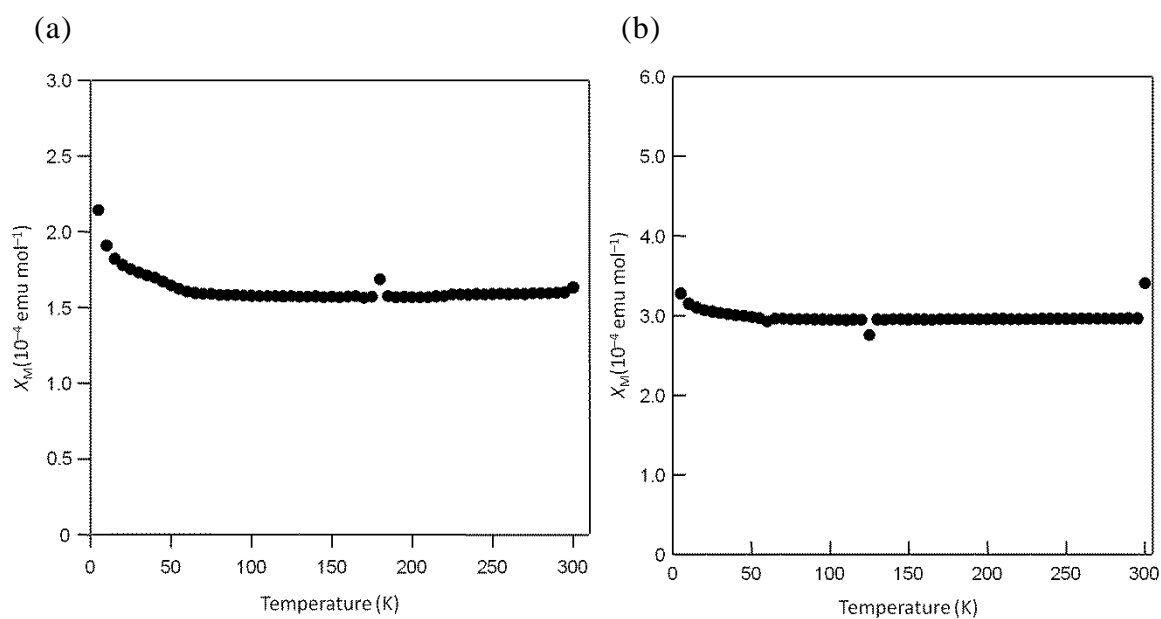


Fig. S5. Temperature dependence of the magnetic susceptibilities of (a) $\text{Na}(\text{TCNQ})\text{I}_{6.0}$ and (b) $\text{K}(\text{TCNQ})\text{I}_{5.8}$ prepared by liquid phase reactions.

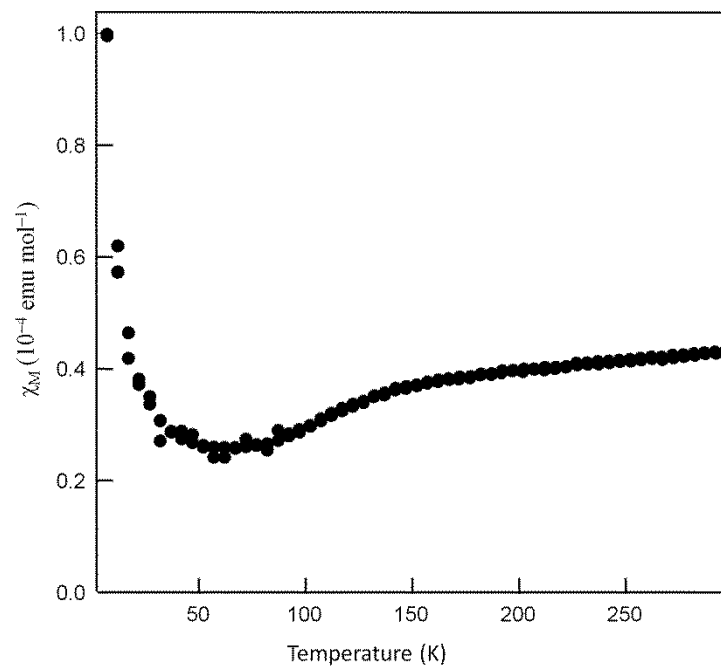


Fig. S6. Temperature dependence of the magnetic susceptibility of $\text{Rb}_2(\text{TCNQ})_3\text{I}_2$ prepared by solid-state reaction.