

Supporting Information

Reversible iodine absorption of nonporous coordination polymer Cu(TCNQ)

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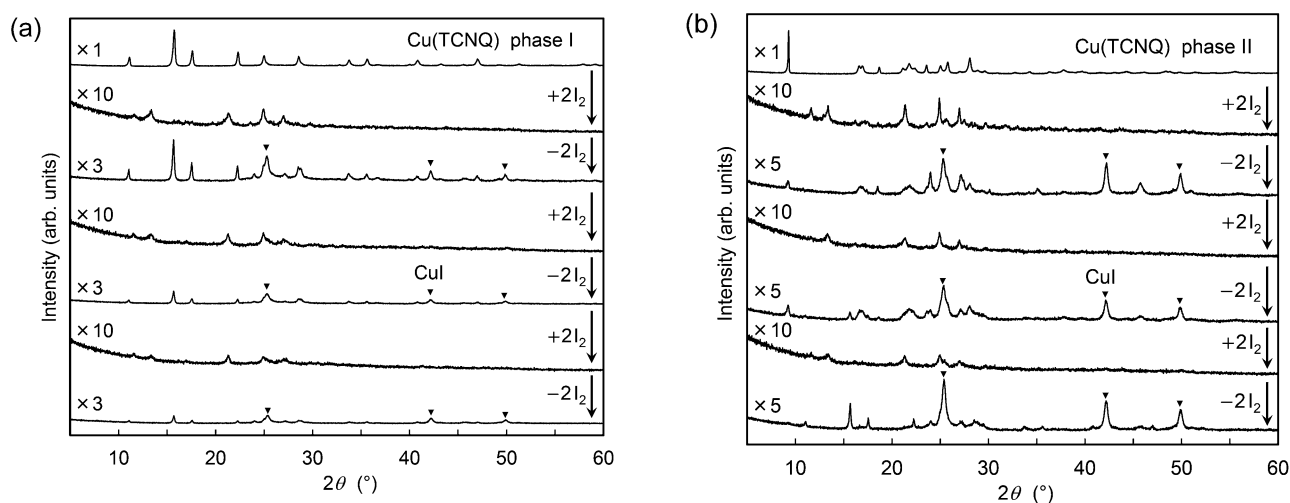


Fig. S1 Powder XRD patterns of (a) phase I and (b) phase II Cu(TCNQ) in the repeated absorption–desorption experiments. Triangles indicate peaks for CuI.

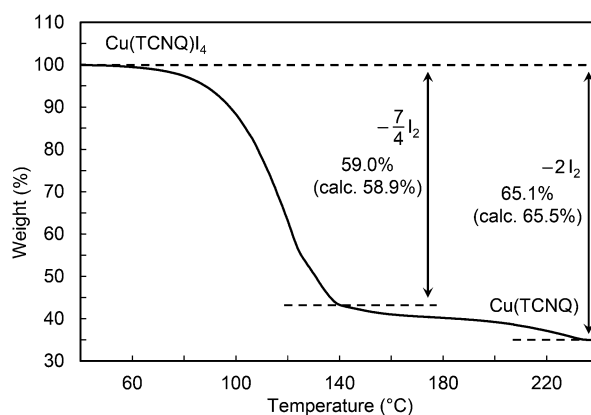


Fig. S2 Thermogravimetric traces of Cu(TCNQ)I₄ prepared by solid-state reactions of phase II Cu(TCNQ).

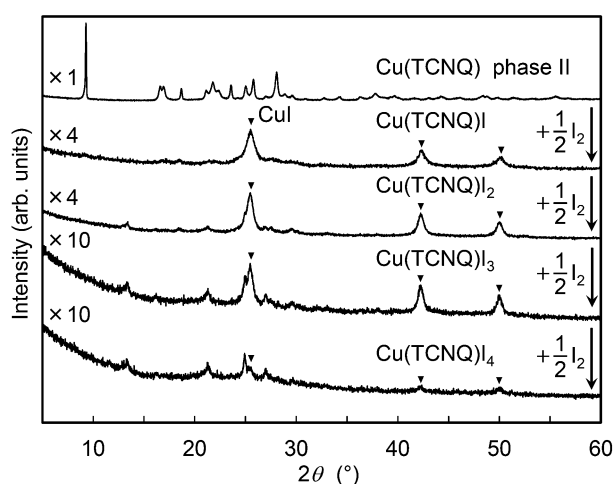


Fig. S3 Powder XRD patterns of Cu(TCNQ)I_n ($n = 1, 2, 3$, and 4) obtained from stepwise solid-state reactions of phase II Cu(TCNQ) . Triangles indicate peaks for CuI .

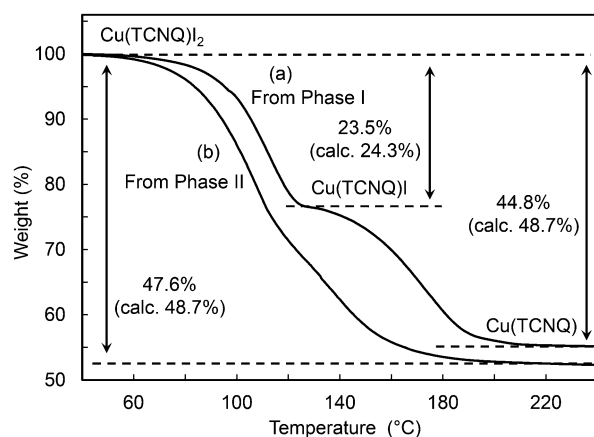


Fig. S4 Thermogravimetric traces of Cu(TCNQ)I_n ($n = 2$) formed by solid-state reactions of phase I Cu(TCNQ) and phase II Cu(TCNQ) .

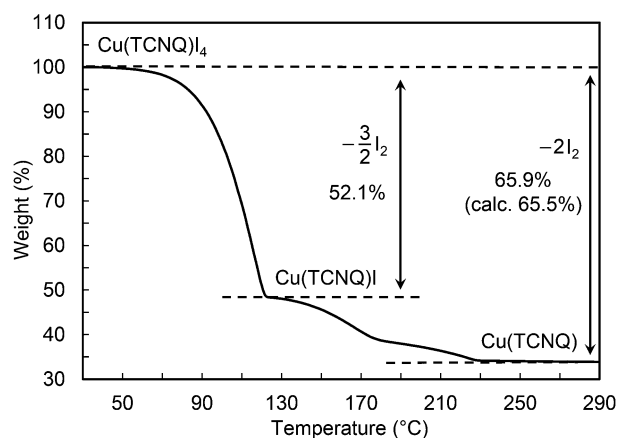


Fig. S5 Thermogravimetric trace of Cu(TCNQ)I_4 prepared by liquid-phase reaction of phase I Cu(TCNQ) .

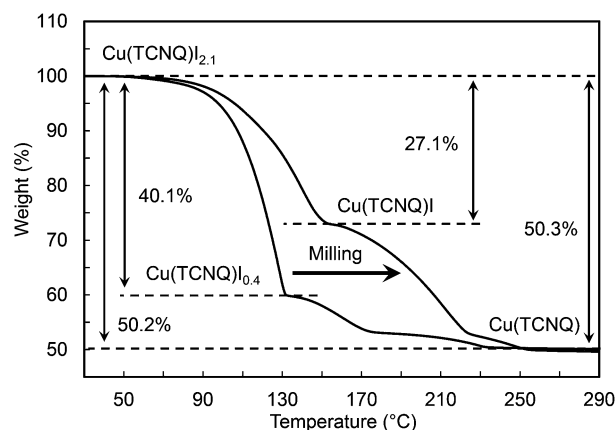


Fig. S6 Thermogravimetric trace of $\text{Cu}(\text{TCNQ})\text{I}_n$ ($n = 2.1$) obtained from liquid-phase reaction of phase I $\text{Cu}(\text{TCNQ})$. TG trace after grinding phase II $\text{Cu}(\text{TCNQ})$ sample ($n = 2.1$) is also shown.

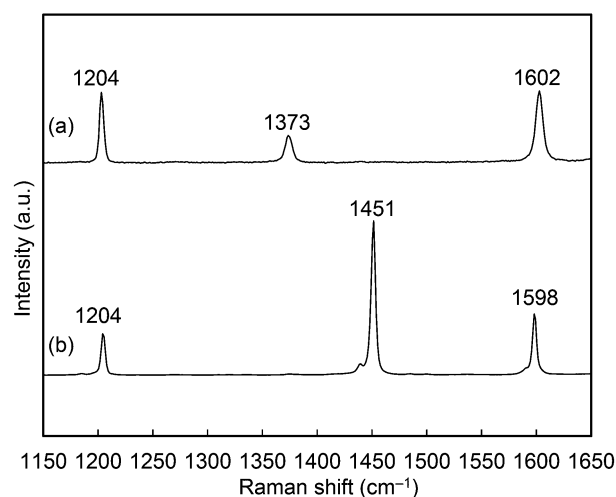


Fig. S7 Raman spectra of (a) phase I $\text{Cu}(\text{TCNQ})$ and (b) $\text{Cu}(\text{TCNQ})\text{I}_4$ prepared by liquid-phase reaction of phase I.

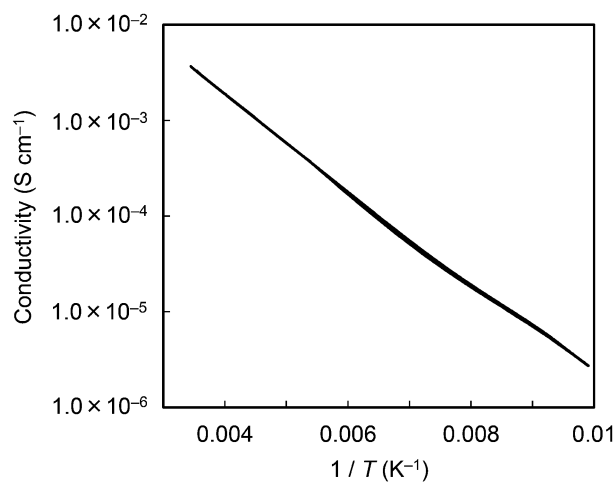


Fig. S8 Temperature dependence of electrical conductivity of compaction pellet of $\text{Cu}(\text{TCNQ})\text{I}_n$ ($n = 3.7$) prepared from phase I $\text{Cu}(\text{TCNQ})$ using liquid-phase reaction.