Room-temperature solution-synthesized p-type copper(I) iodide semiconductors for transparent thin film transistors and complementary electronics

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Developing p-type transparent semiconductors has attracted great interest over the past decades to realize complementary p-n junction devices and circuits by cost-effective graphic art processes. Here we report two kinds of transparent p-type Cu-based transistors (CuI and Cu₅O), which can be synthesized using solution process at plastic-compatible temperatures.