## Chiral Molecular Conductor With An Insulator-Metal Transition Close To Room Temperature

Jonathan Short,<sup>a</sup> Toby J. Blundell,<sup>a</sup> Sara J. Krivickas,<sup>a</sup> Songjie Yang,<sup>a</sup> John D. Wallis,<sup>a</sup> Hiroki Akutsu,<sup>b</sup> Yasuhiro Nakazawa<sup>b</sup> and Lee Martin<sup>\*a</sup>

<sup>a</sup>. School of Science and Technology, Nottingham Trent University, Clifton Lane, Nottingham, NG11 8NS, United Kingdom. <sup>b</sup>Department of Chemistry, Graduate School of Science, Osaka University, 1-1 Machikaneyama, Toyonaka, Osaka 560-0043, Japan.

Figs. S1-S3



Fig. S1 Band calculations at 300K (top) and 150K (bottom).



**Fig. S2** Ewald sphere at 300K for  $\theta$ -(**1**)<sub>4</sub>TCNQ viewed along the c\* axis showing the presence of incommensurate peaks along the a\* (red) and b\* (green) axis. Some reflections have been hidden for clarity.



300 K Band Insulator by forming the eight-fold superstructure



150 K metallic by forming the uniform stacks

Fig. S3 Schematic diagrams of the donor layer above (top) and below (bottom) the insulator-metal (IM) transition temperature.