Electronic Supplementary Material (ESI) for New Journal of Chemistry.

(TMT-TTF)[$Pb_{2.6/3}\square_{0.4/3}I_2]_3$: A TTF intercalated two-dimensional hybrid lead iodide: crystal structure and properties

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Figures

Fig. S1. The experimental powder XRD patterns and the simulated patterns from the crystal data of compounds (TMT-TTF)[$Pb_{2.6/3}\square_{0.4/3}I_2]_3$ (**1**) and (TTF)Pb_2I_5.

Fig. S2. Thermogravimetric analysis of compound (TMT-TTF)[$Pb_{2.6/3}\square_{0.4/3}I_2]_3$ (**1**).

Fig. S3. Asymmetric unit structure of compound (TMT-TTF)[$Pb_{2.6/3}\square_{0.4/3}I_2]_3$ (**1**).

Fig. S4. Mott Schottky curves of (TTF)Pb_2I_5 coated electrodes.

Table

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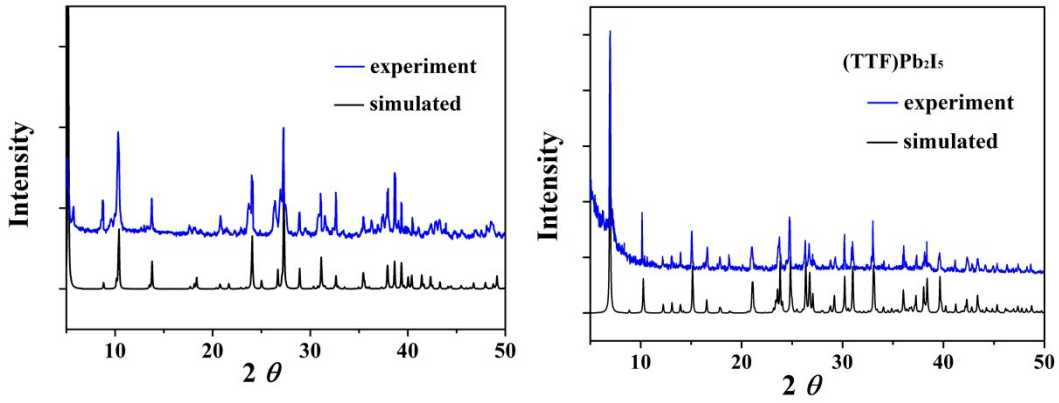

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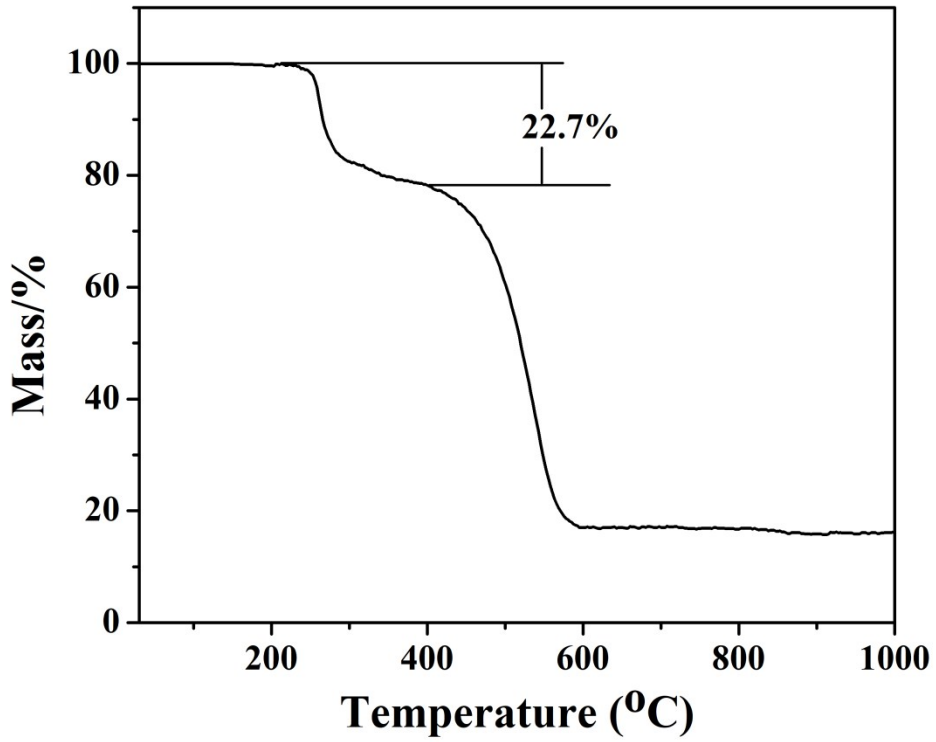

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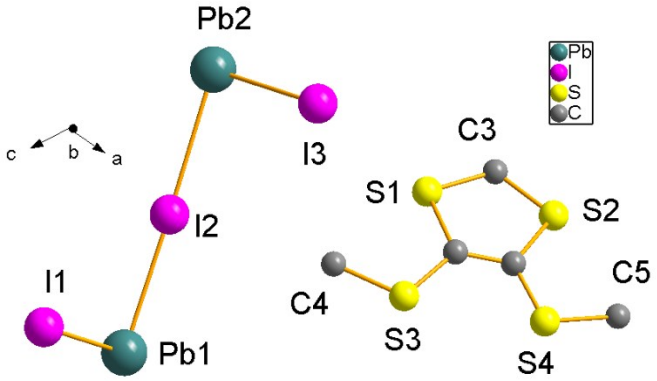

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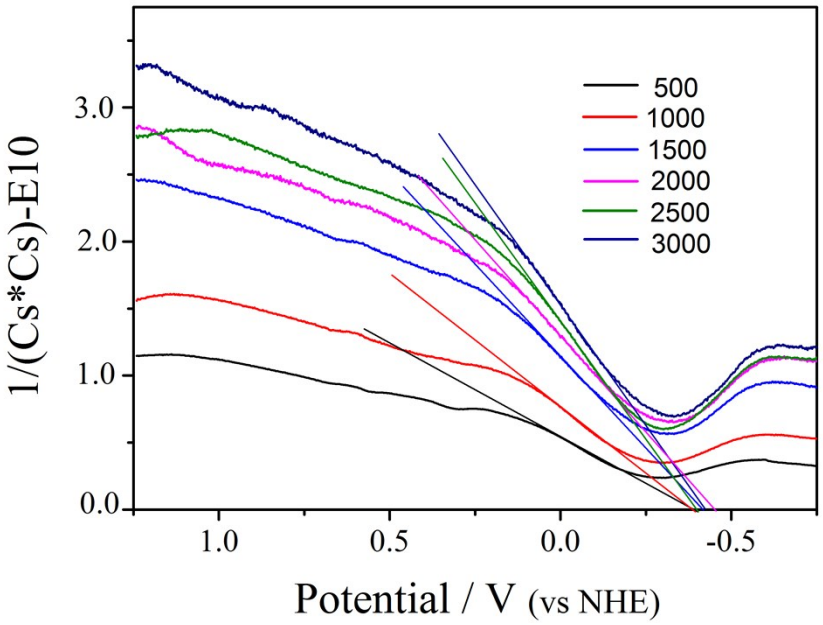

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formula	$C_{10}H_{12}I_6Pb_{2.6}S_8$
fw	1688.77
cryst size (mm^3)	0.10×0.10×0.20
cryst syst	monoclinic
space group	*I*2/*m*
a (Å)	19.5549(14)
b (Å)	4.5007(2)
c (Å)	19.9119(9)
α (deg)	90
β (deg)	119.0050(14)
γ (deg)	90
V ($Å^3$)	1532.66(14)
Z	2
ρ_{calcd} ($g\ cm^{-3}$)	3.659
F(000)	1462
μ (mm^{-1})	20.839
T (K)	223(2)
reflns collected	24096
unique reflns	2003
observed reflns	1692
no. params	106
GOF on F^2	1.080
R_1 [I>2σ(*I*)]	0.0305
${}_wR_2$ [I>2σ(*I*)]	0.0544