

Supplementary Information for b000000x

## Dynamic Random Access Memory Devices Based on Bismuth Sulfide Nanoplates Prepared from a Single Source Precursor

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**Table S1. Summary of Crystallographic Data for Bi(DTCA)<sub>3</sub>**

Compound	Bi(DTCA) <sub>3</sub>
Formula	C <sub>39</sub> H <sub>24</sub> BiN <sub>3</sub> S <sub>6</sub>
Formula weight	935.95
Crystal system	Monoclinic
Space group	P 21/n
a (Å)	16.950(3)
b (Å)	9.6195(15)
c (Å)	20.795(3)
β (°)	93.618(5)
V (Å <sup>3</sup> )	3383.7(9)
Z	4
Dc(Kg/m <sup>3</sup> )	1.837
F(0 0 0)	1832
Crystal size (mm)	0.10 x 0.05 x 0.05
Data/restraints/parameters	7624 / 0 / 443
Goodness-of-fit on F <sup>2</sup>	1.141
R1, wR2 (I>2σ(I))	0.0795, 0.1163

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R1, wR2 (all data)	0.1241, 0.1342
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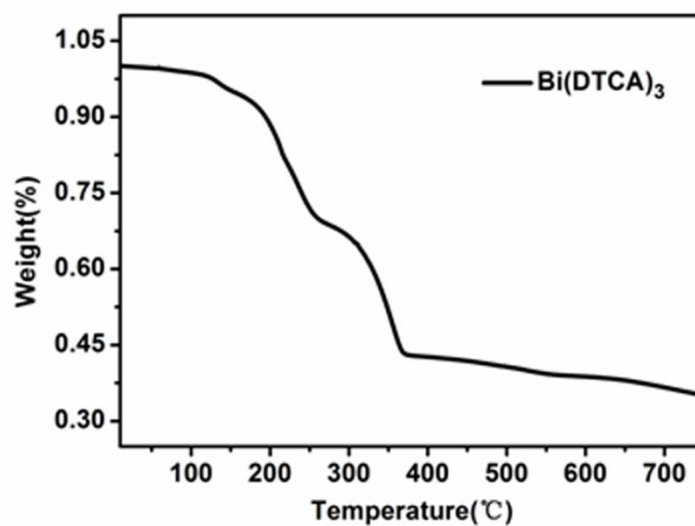
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**Table S2. Selected Bond Lengths (Å) and Angles (deg) for Bi(DTCA)<sub>3</sub>**

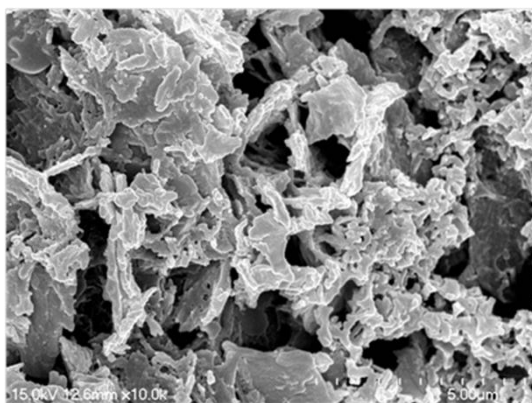
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Compound Bi(DTCA) <sub>3</sub>			
Bi(1)-S(1)	2.639(3)	Bi(1)-S(3)	2.720(2)
Bi(1)-S(4)	2.731(3)	Bi(1)-S(2)	2.886(3)
Bi(1)-S(5)	2.963(3)	Bi(1)-S(6)	3.096(3)
S(1)-Bi(1)-S(3)	88.76(9)	S(1)-Bi(1)-S(4)	82.18(9)
S(3)-Bi(1)-S(4)	65.19(8)	S(1)-Bi(1)-S(2)	63.91(9)
S(3)-Bi(1)-S(2)	81.18(8)	S(4)-Bi(1)-S(2)	132.61(9)
S(1)-Bi(1)-S(5)	93.08(9)	S(3)-Bi(1)-S(5)	140.70(8)
S(4)-Bi(1)-S(5)	76.17(8)	S(2)-Bi(1)-S(5)	134.05(8)
S(1)-Bi(1)-S(6)	86.54(8)	S(3)-Bi(1)-S(6)	161.40(7)
S(4)-Bi(1)-S(6)	131.65(7)	S(2)-Bi(1)-S(6)	80.59(8)
S(5)-Bi(1)-S(6)	57.63(7)		

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**Fig. S1** TGA analysis of Bi(DTCA)<sub>3</sub>.



**Fig. S2** SEM image of Bi<sub>2</sub>S<sub>3</sub> samples prepared by solventless method.