

Supplementary File

**Self-assembled 3D Flower-like Hierarchical architecture on the thermoelectric
properties of Ag-doped Bi₂S₃**

T. Manimozhi^{1*}, S. Kavirajan³, M. Navaneethan^{2,3*}, A. Joseph Sagaya Kennedy⁴

¹Department of Physics, Saveetha School of Engineering,

Saveetha Institute of Medical and Technical Sciences (SIMATS), Saveetha University,

Thandalam, Chennai -602105, India.

²Nanotechnology Research Centre (NRC), SRM Institute of Science and Technology,

Kattankulathur, 603203, Tamil Nadu, India.

³Functional Materials and Energy Devices Laboratory, Department of Physics and
Nanotechnology, SRM Institute of Science and Technology, Kattankulathur-603203, Tamil

Nadu, India.

⁴Department of physics, SRM TRP Engineering college (SRM Group), Irungalur,

Tiruchirappalli - 621105, Tamilnadu, India.

***Corresponding Author**

E-mail address: manimozhiavc@gmail.com; m.navaneethan@gmail.com

Table ES1: Elemental composition of Bi₂S₃ (S1), 0.01 % of Ag-doped Bi₂S₃ (S2) and 0.025 % Ag-doped Bi₂S₃ (S3) samples based on EDS analysis.

Samples	Elements	Atom%	Weight%
S1	S	58.35	17.69
	Bi	41.65	82.31
S2	S	58.60	18.02
	Bi	40.36	80.90
	Ag	1.05	1.08
S3	S	53.55	15.39
	Bi	43.78	82.02
	Ag	2.67	2.58

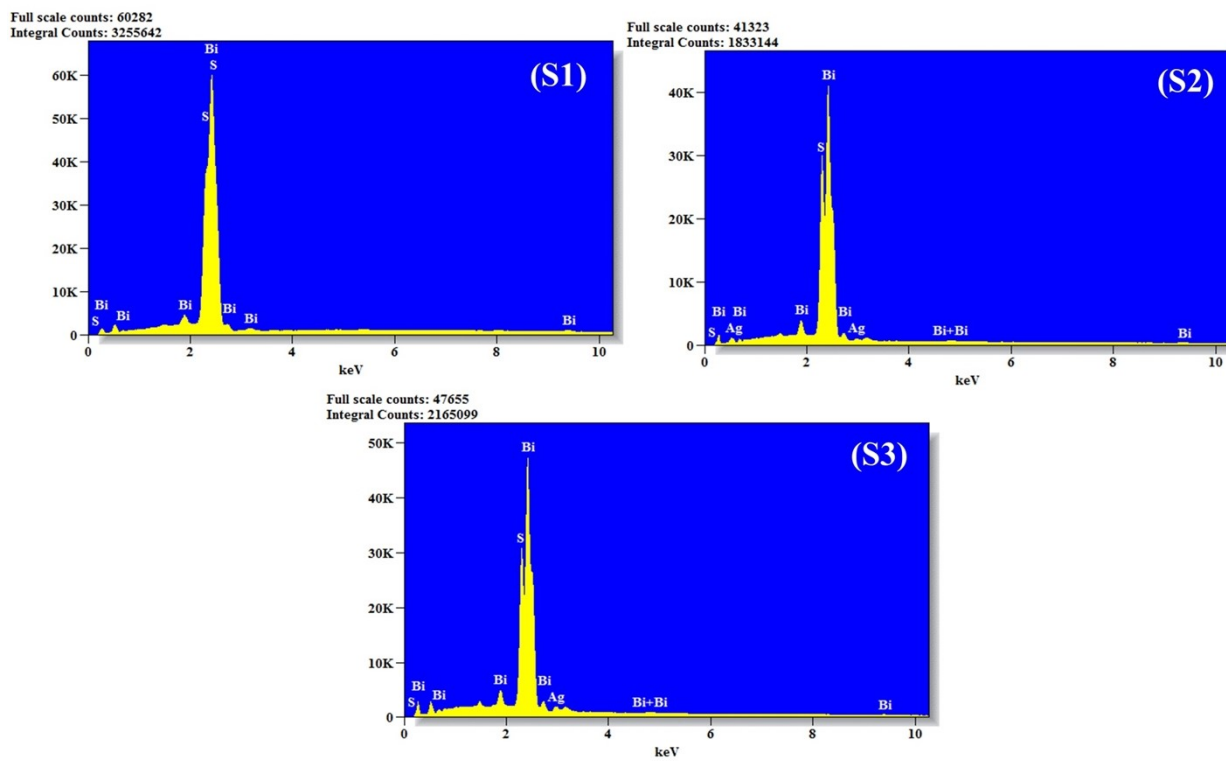


Fig. ES1 EDS spectra of Bi_2S_3 (S1), 0.01 % of Ag-doped Bi_2S_3 (S2) and 0.025 % Ag-doped Bi_2S_3 (S3) samples.

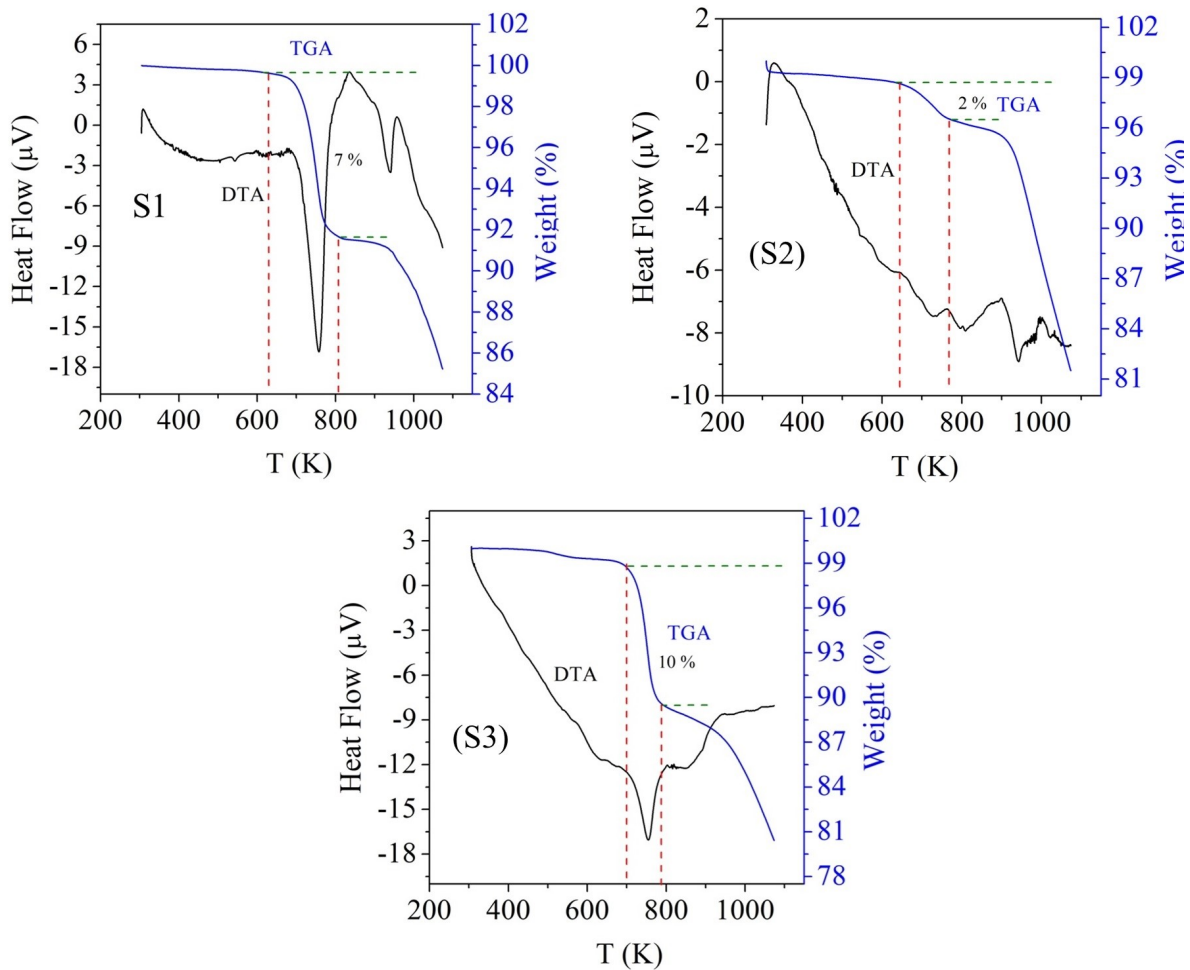


Fig. ES2: Thermogravimetric analysis (TGA) and differential thermal analysis (DTA) of Bi_2S_3 (S1), 0.01% Ag-doped Bi_2S_3 (S2), and 0.025% Ag-doped Bi_2S_3 (S3) samples.