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Electronic Supporting Information

For

Substrate Induced Morphology in a Hydrosulfide-Molybdenum Complex

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1. FESEM image of **1** on glass surface
2. TEM image of cubic motif
3. FESEM of **1** on brass in presence of DCM
4. TEM images of **1** on silicon wafer
5. FTIR spectra as pressed KBr discs
6. Powder XRD patterns
7. Table S1: Thermal conductivity of substrates used

1. 1 on glass surface

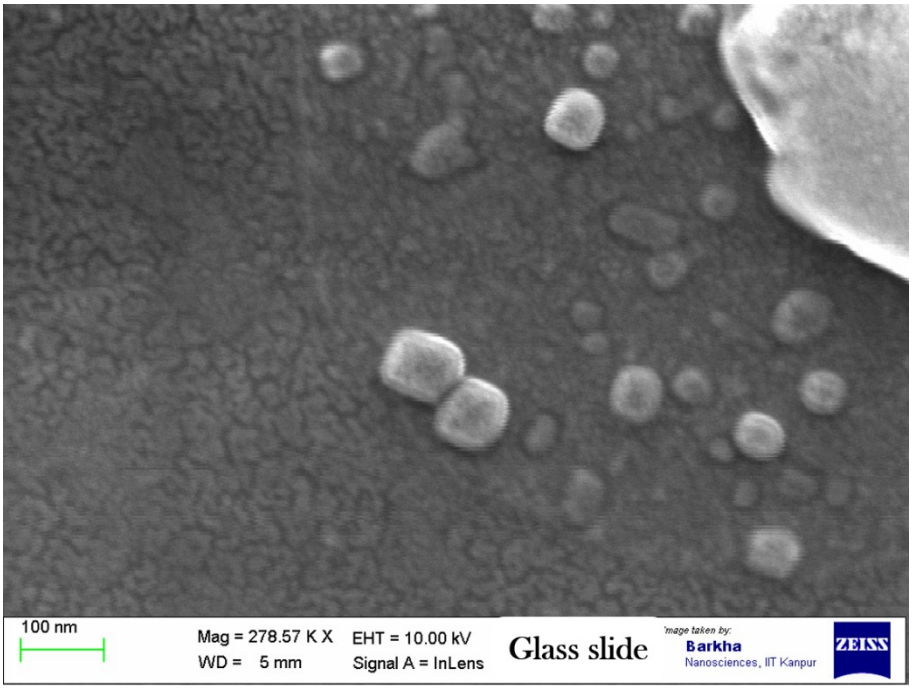

Figure S1: FESEM image of **1** depicting cuboidal motifs on glass surface

2. TEM image of cuboid

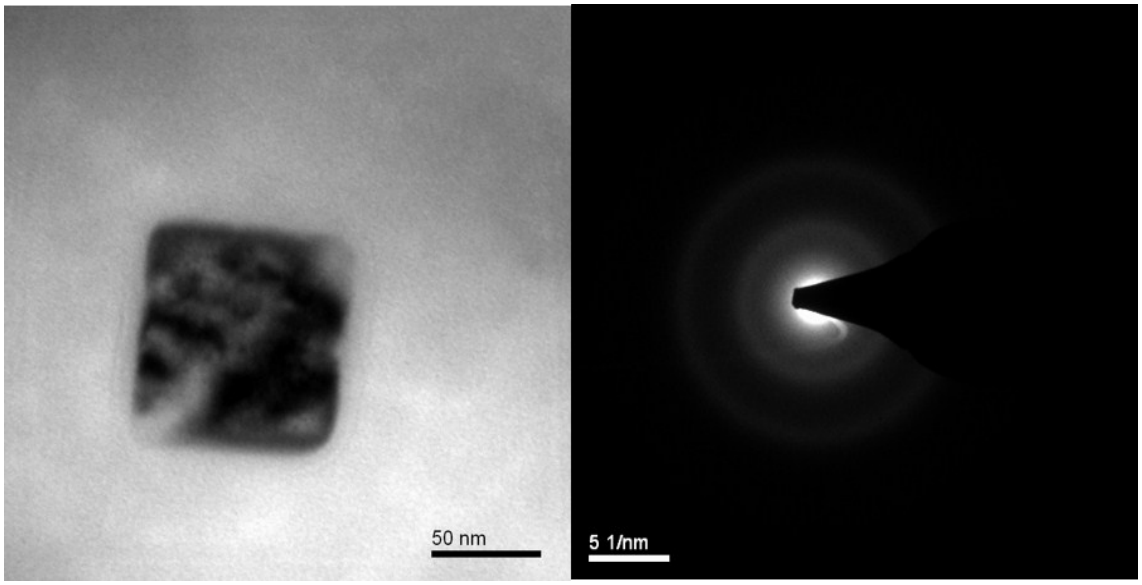

Figure S2: TEM image and SAED pattern of cuboidal motifs of **1**

3. 1 on brass in presence of DCM

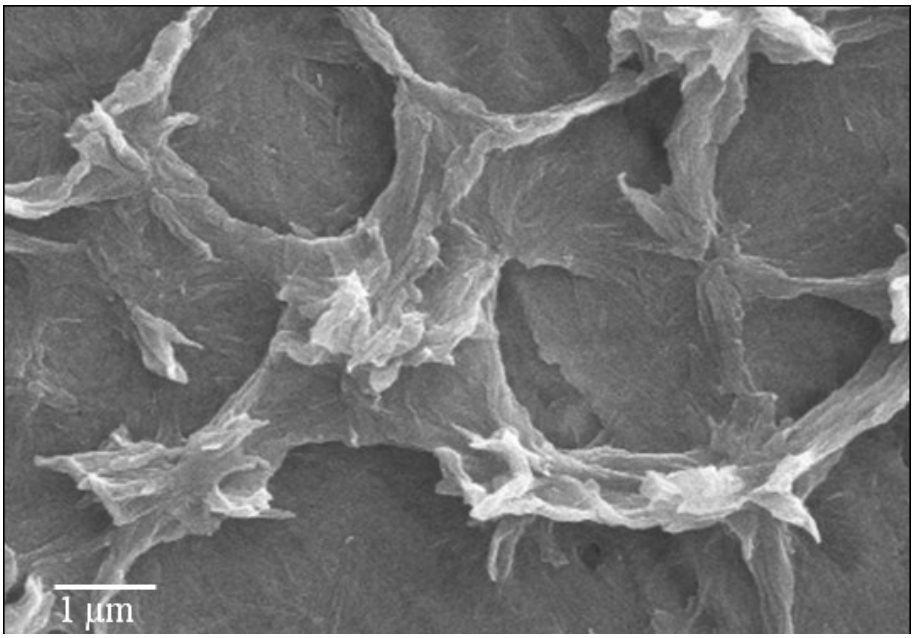

Figure S3: Rapid evaporation of low boiling dichloromethane solvent resulting in extensive lateral growth of **1** on brass.

4. TEM image of spheroids

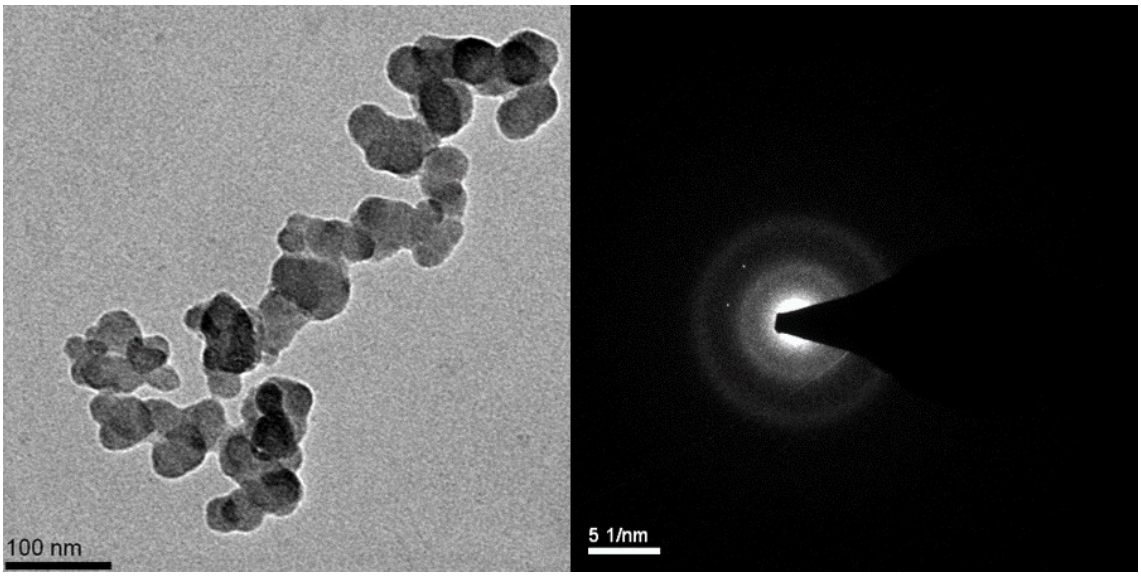

Figure S4: TEM image and SAED pattern of spheroids of **1** on silicon wafer

5. Powder XRD patterns

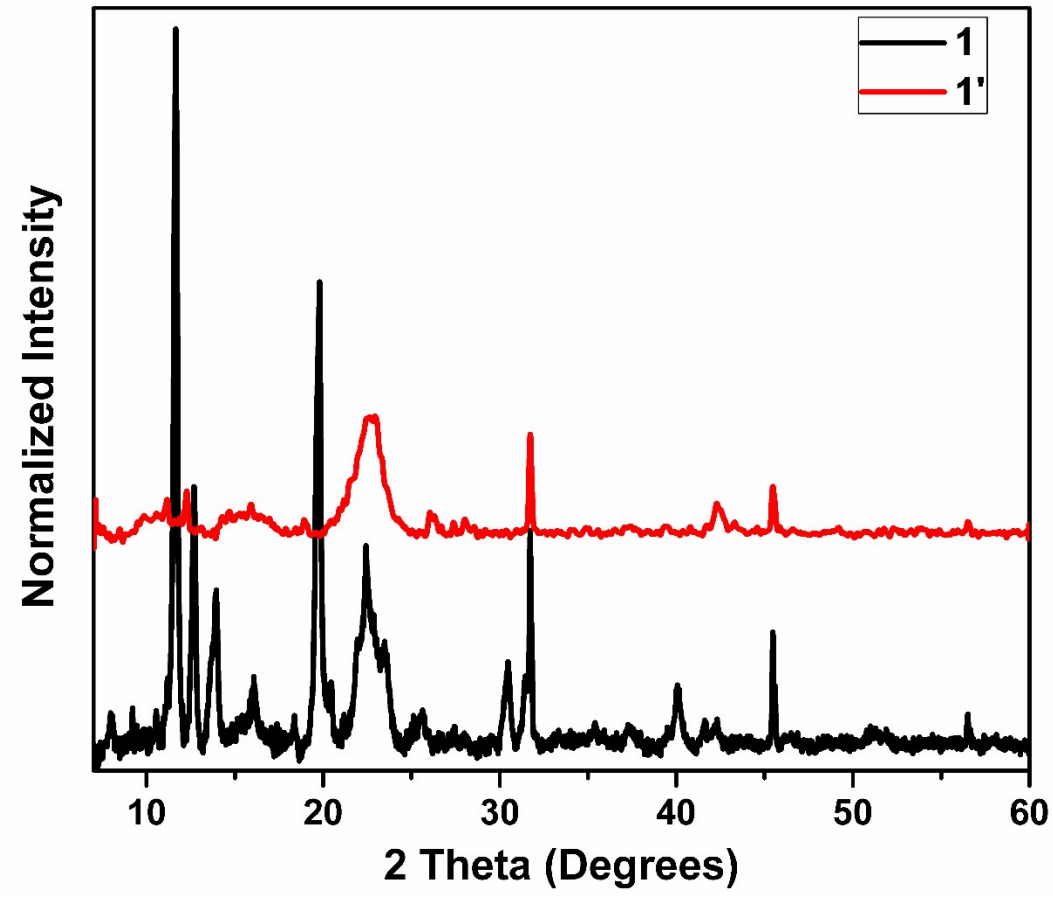

Figure S5: Powder XRD patterns of **1** and its self-assembled forms on brass (**1′**) and copper substrates are depicted.

6. FTIR spectra as pressed KBr discs

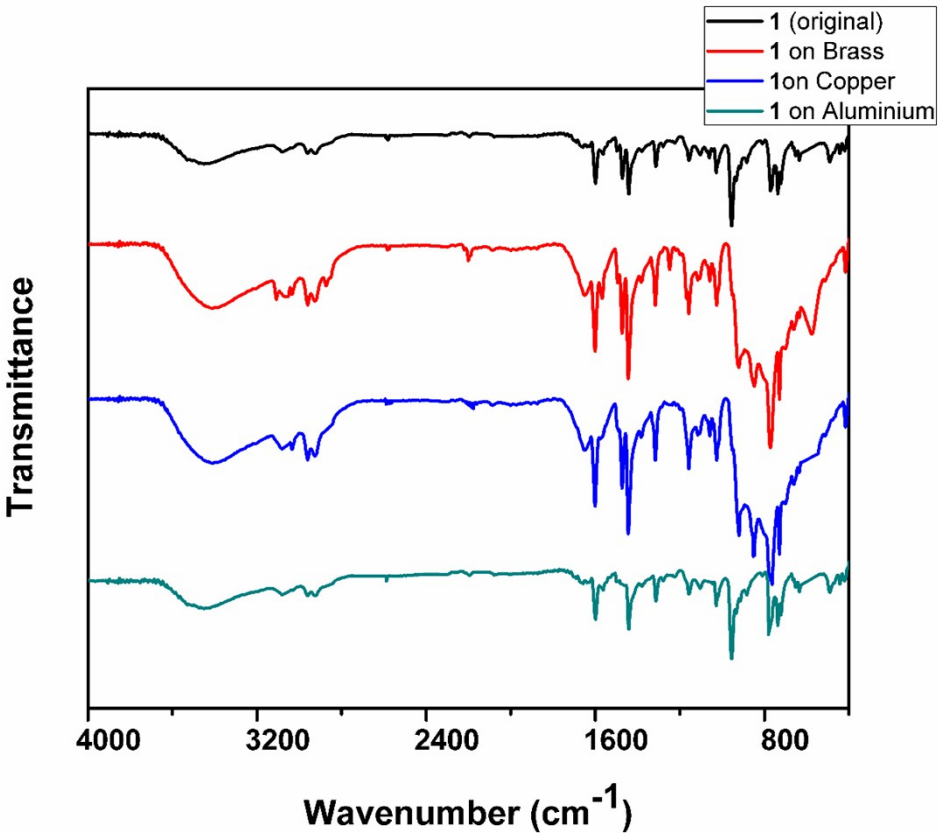

Figure S6: FTIR spectra of **1** before and after deposition respective substrates are depicted.

7. Table S1: Thermal conductivity of the substrates

Substrate	Thermal Conductivity, k (W/m K)
Brass	109.0
Copper	385.0
Zinc	116.0
Aluminium	205.0
Glass	149.0
Silicon	0.8