

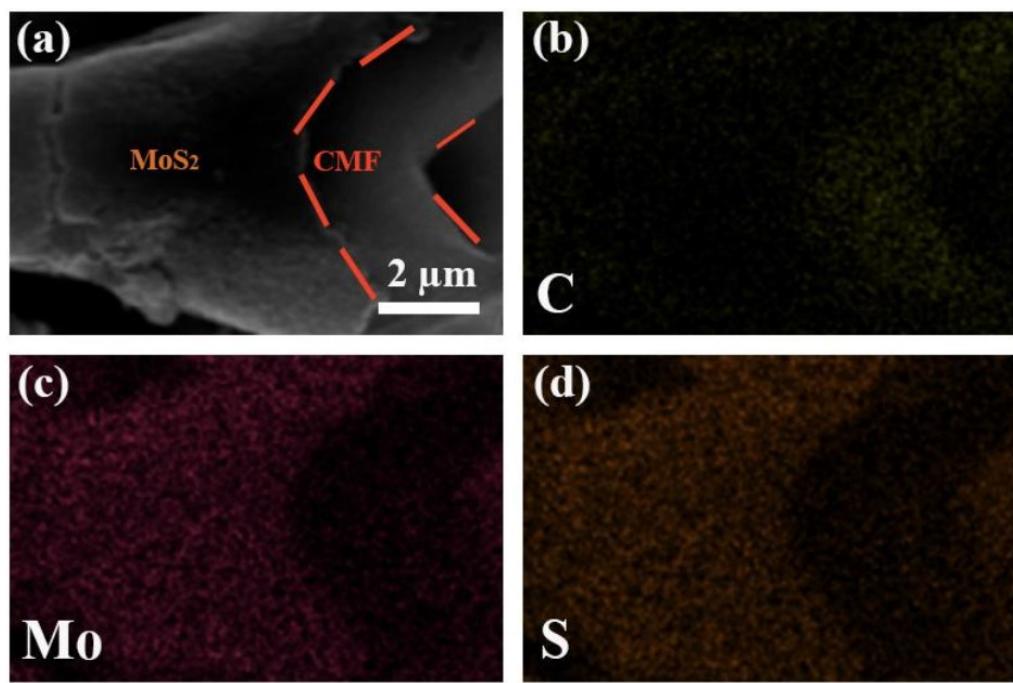
## **Electronic Supplementary Information**

# **Compressible and Flexible PPy@MoS<sub>2</sub>/C Microwave Absorption Foam with Strong Dielectric Polarization from 2D Semiconductor Intermediated Sandwich Structure**

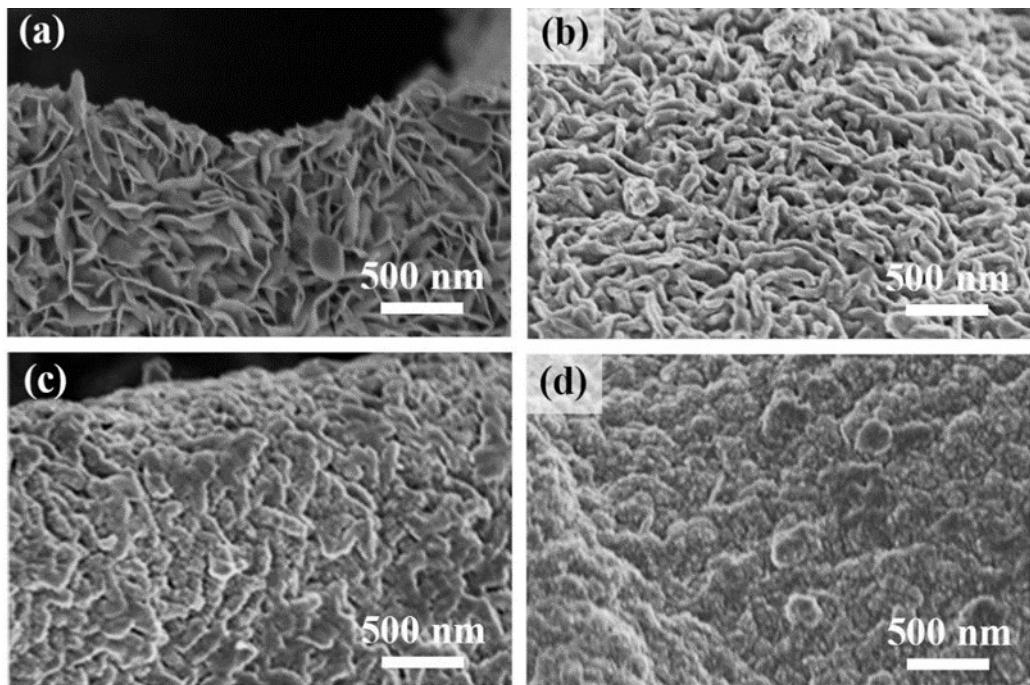
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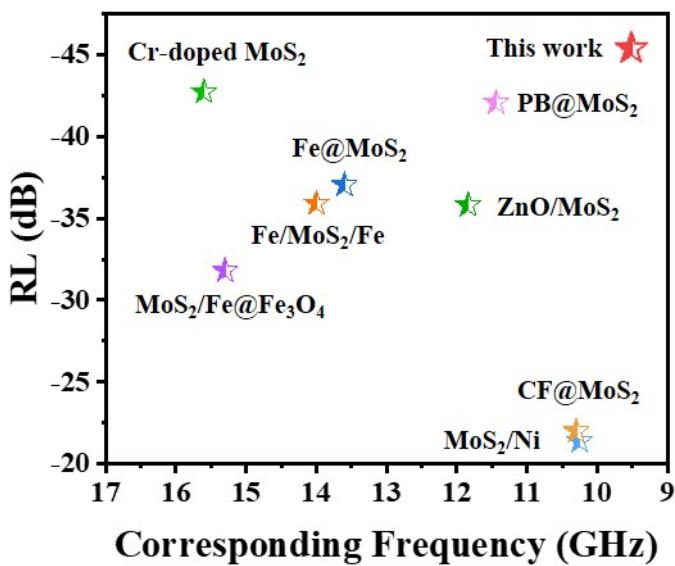
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**Fig. S1** SEM images of (a)MoS<sub>2</sub>/CMF and EDS elemental mapping profiles of corresponding (b) carbon, (c) molybdenum, and (d) sulfur, respectively.



**Fig. S2** SEM images of the PPy polymerization time of PPy@MoS<sub>2</sub>/CMF composites (a) 0 h, (b) 1 h, (c) 2 h, and (d) 4 h, respectively.



**Fig. S3** The maximum reflection loss values and corresponding frequency of the sample PPy@MoS<sub>2</sub>/CMF-2 and related materials<sup>1-8</sup>.

### Supplementary references

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