**Supplementary Information**

**TiN/Fe2N/C composite with stable and broadband high-temperature microwave absorption**

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Fig. S1. The optical photograph of the test samples (22.86 mm × 10.16 mm × 3.00 mm)



Fig. S2. The relative permeability (*μ*′ and *μ*″) and magnetic loss tangent (tan*δ*M) of the TiN/Fe2N/C composite: (a), (d), and (g) TiN/Fe2N/C-7, (b), (e), and (h) TiN/Fe2N/C-15, (c), (f), and (i) TiN/Fe2N/C-23