**Supplementary material**

**Morphology Design of Co-electrospinning MnO-VN/C Nanofibers for Enhancing the Microwave Absorption Performances**

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**Figure S1**

Figure S1 TEM (a) and HR-TEM (b) images of MnO-VN/C-2 NFs, respectively.

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Figure S2

Figure S2 TGA curves (a) and Mn 2p spectra (b) of MnO-VN/C-2 NFs and MnO-VN/C-4 NFs, respectively.
Figure S3

Figure S3 The curves of the relative complex permeability (a) and magnetic loss tangent (b) for the as-prepared fibers/paraffin hybrids, respectively.
Figure S4 MnO-VN/C-2 NFs/paraffin hybrid: (a) 2D color map of impedance match degree and (b) the \((1/4)\lambda\) curve.
Table S1 Microwave absorption performance of transition metal nitrides/carbides absorbers

<table>
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<tr>
<th>Absorber</th>
<th>Loading (wt%)</th>
<th>Optimum thickness (mm)</th>
<th>RLmin (dB)</th>
<th>EAB (GHz)</th>
<th>Ref</th>
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<td>TiN nanoparticles</td>
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<td>Mn₄N particles</td>
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<td>TiC NWs</td>
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<td>1.7</td>
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<td>TiN/C fibers</td>
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<td>1.9</td>
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<td>Sandwich-like BN/rGO</td>
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<td>1.6</td>
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<td>VN NWs-rGO</td>
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<td>S6</td>
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References: