Supporting Information for

Multifunctional MXene/C Aerogels for Enhanced Microwave Absorption and Thermal Insulation

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Supplementary Figures

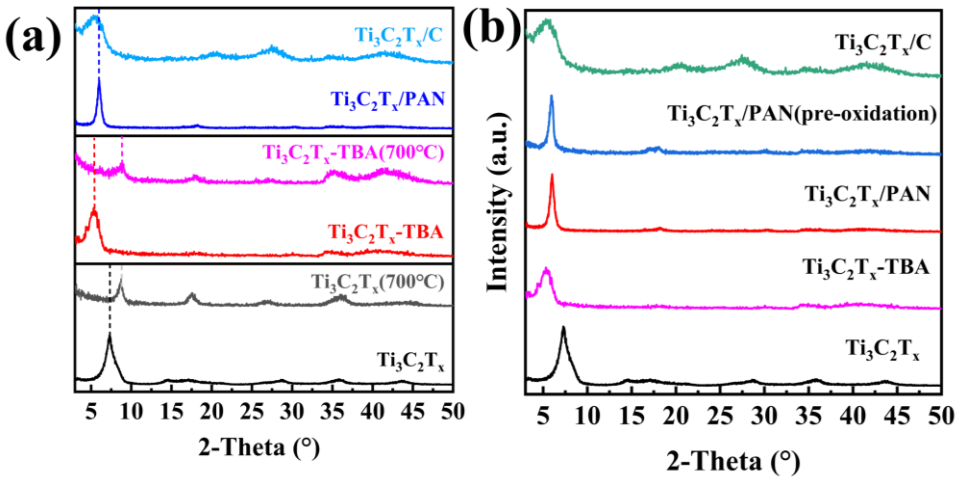

Fig. S1 a XRD patterns of $Ti_3C_2T_x$, $Ti_3C_2T_x$-TBA and $Ti_3C_2T_x$/PAN before and after high temperature treatment at 700 °C. **b** XRD patterns of $Ti_3C_2T_x$, $Ti_3C_2T_x$-TBA, $Ti_3C_2T_x$/PAN, $Ti_3C_2T_x$/PAN (pre-oxidation) and $Ti_3C_2T_x$/C

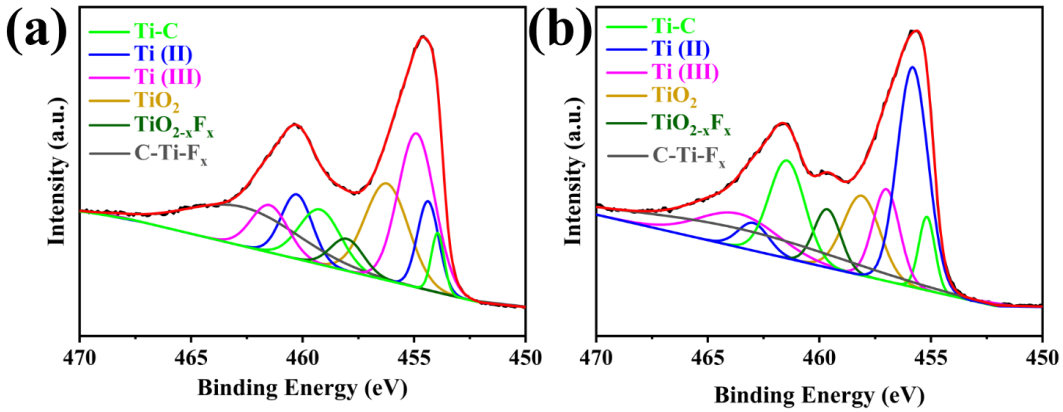

Fig. S2 Ti 2p XPS spectrum of **a** MXene and **b** MC-1

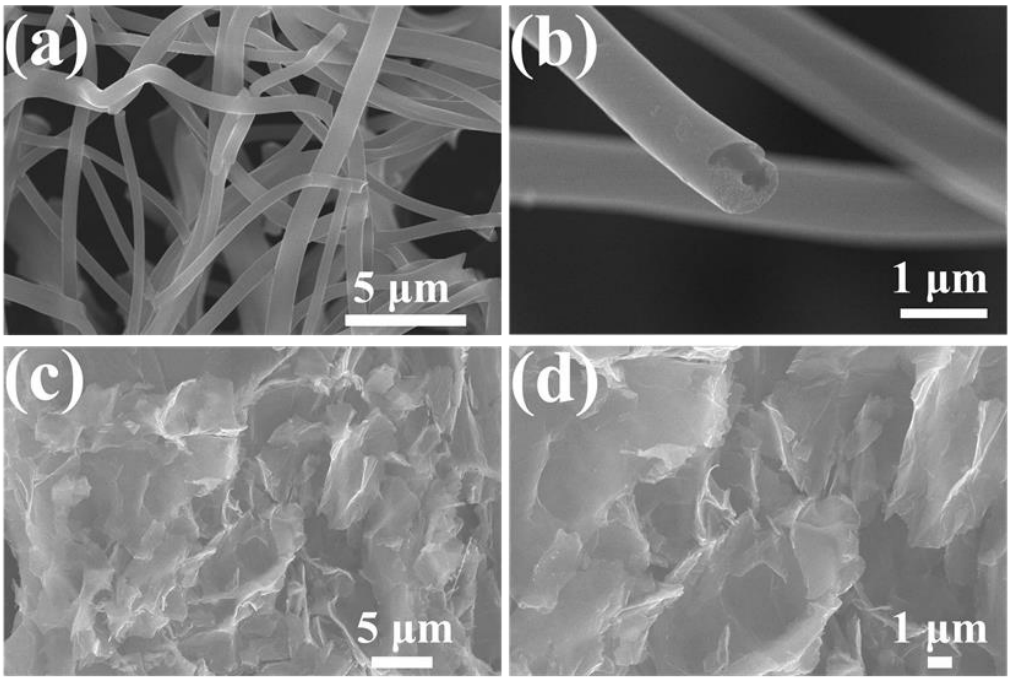

Fig. S3 SEM images of the **a, b** carbon nanofiber and **c, d** $Ti_3C_2T_x$ MXene nanosheets

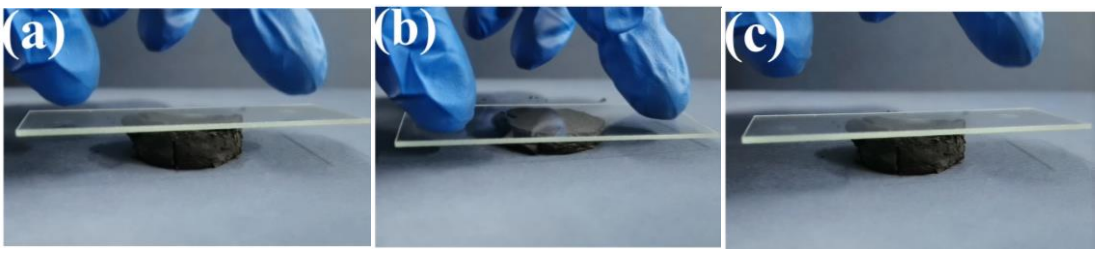

Fig. S4 Digital images of the compression process of MXene/C aerogels: **a** initial state, **b** compressed state, **c** recovered state

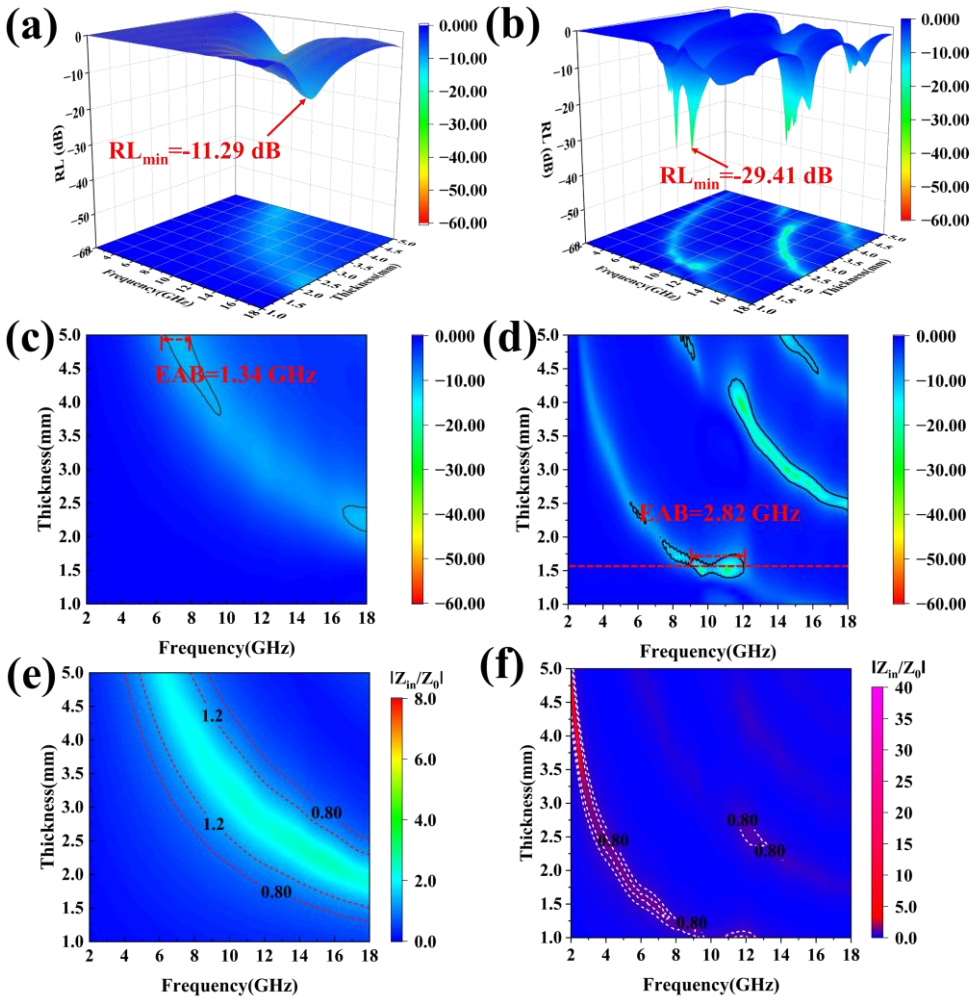

Fig. S5 3D representation of RL of **a** Carbon nanofiber and **b** MXene. 2D representation of RL values of **c** Carbon nanofiber and **d** MXene. 2D representation of Z values of **e** CNF and **f** MXene

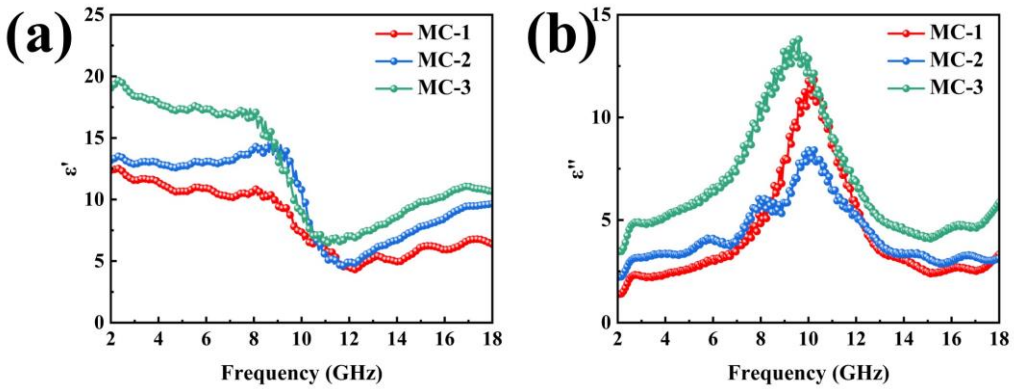

Fig S6 The real part **a** and imaginary part **b** of permittivity for MXene/C aerogels

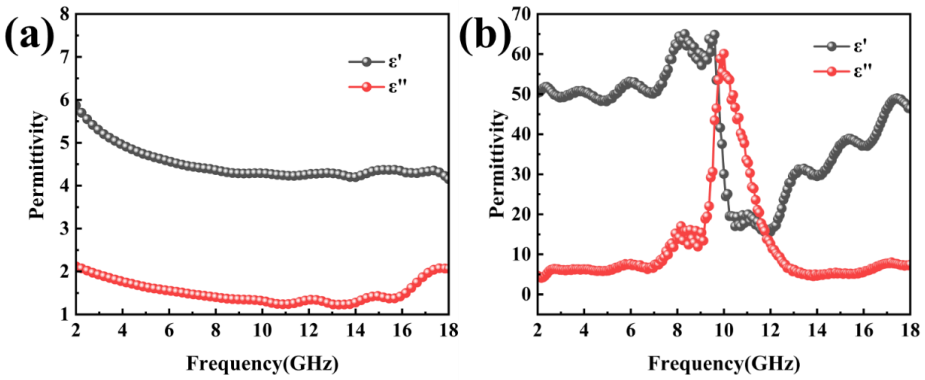

Fig. S7 The permittivity of **a** CNF and **b** MXene