Supplementary Information

Synergistic Interface and Entropy Engineering in Ferrite/Nitrides Heterogeneous High-Entropy Composites for Broadband Microwave Absorption

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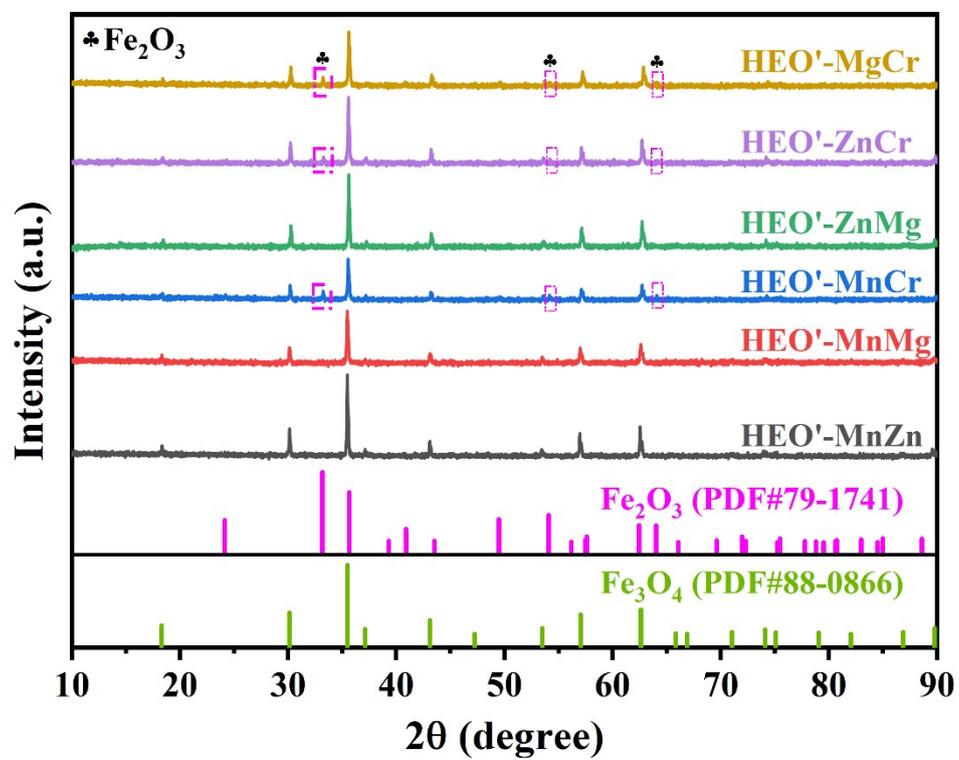* Authors to whom correspondence should be addressed: wpzhou@ncu.edu.cn.
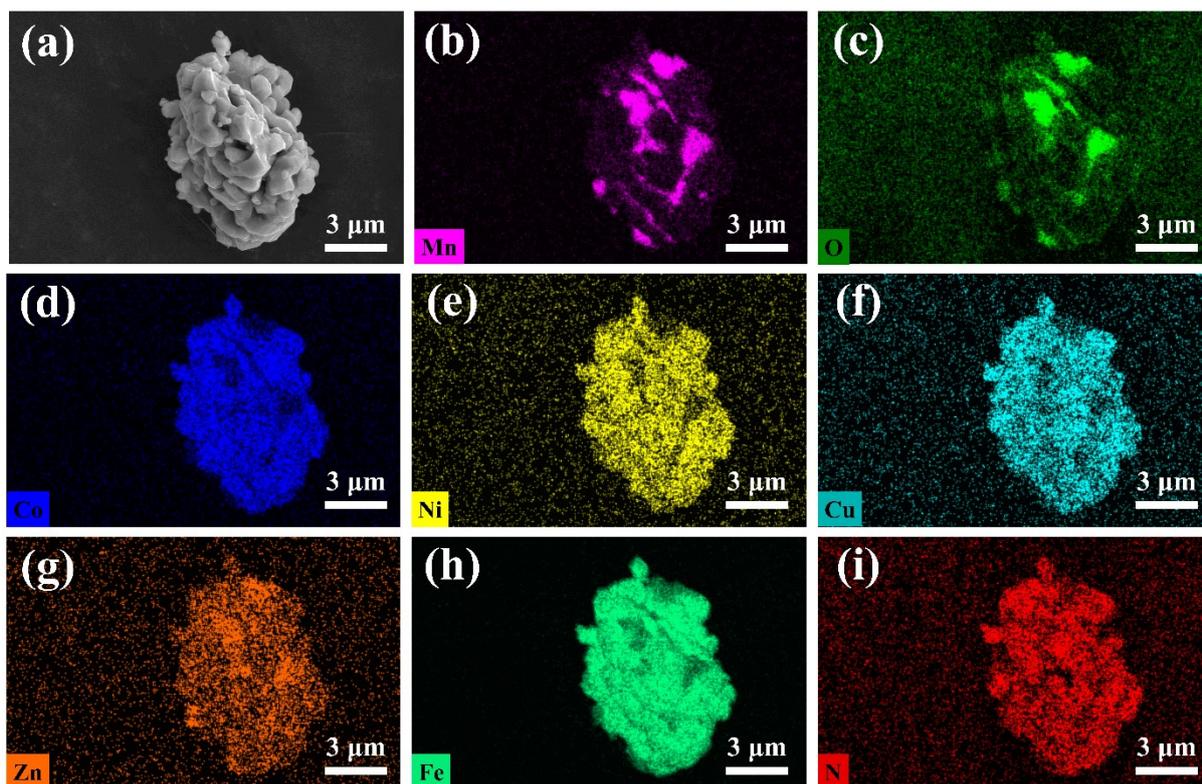
Figure S1. XRD patterns of as-prepared HEOs

Figure S2. (a) SEM images of sample N-MnZn (b-i) EDS images of sample N-MnZn.
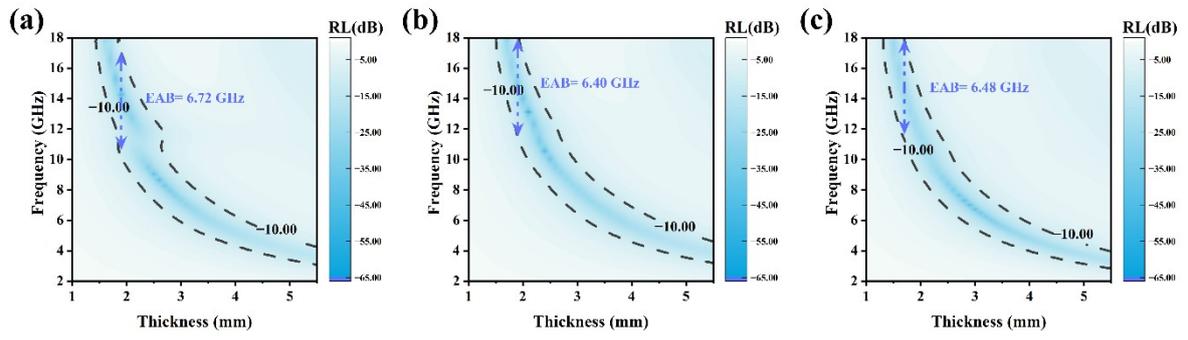
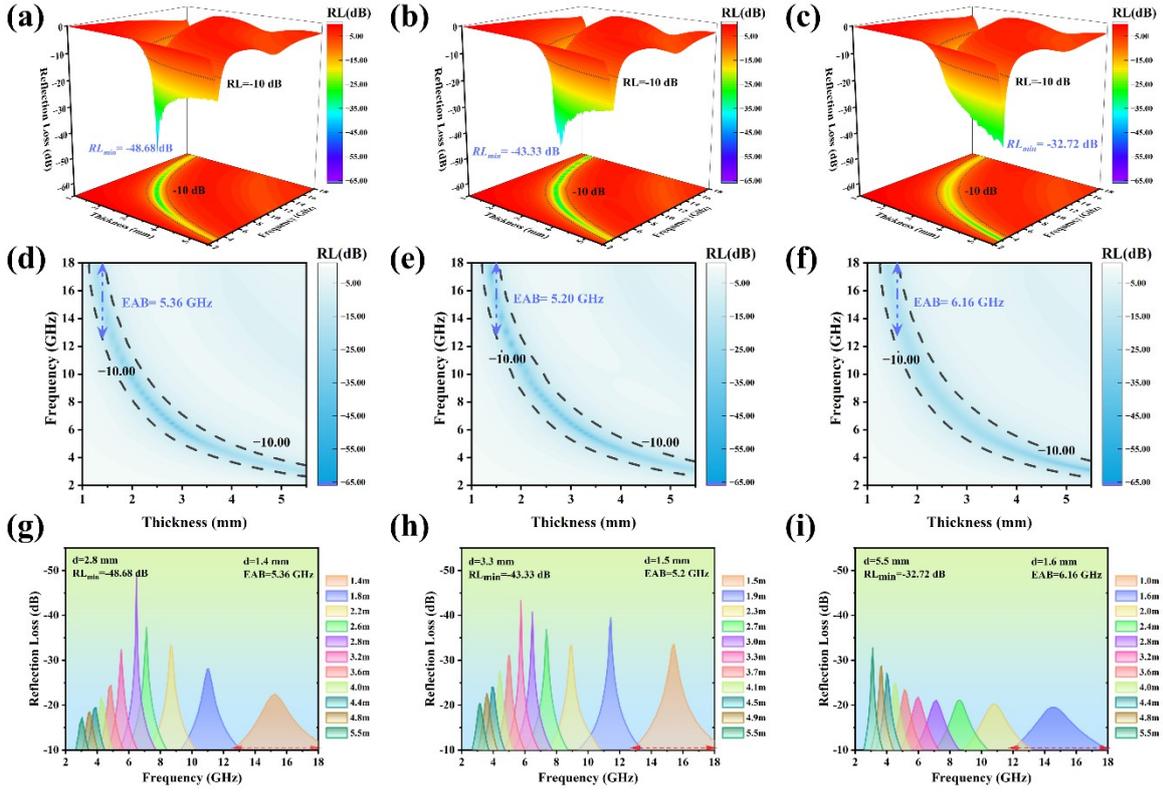**Figure S3.** 2D projection diagram of (a) N-MnZn, (b) N-MnMg, (c) N-ZnMg

Figure S4. Calculated 3D contour maps, 2D plots, and RL curves of (a),(d),(g) N-MnCr, (b),(e),(h) N-ZnCr, (c),(f),(i) N-MgCr.
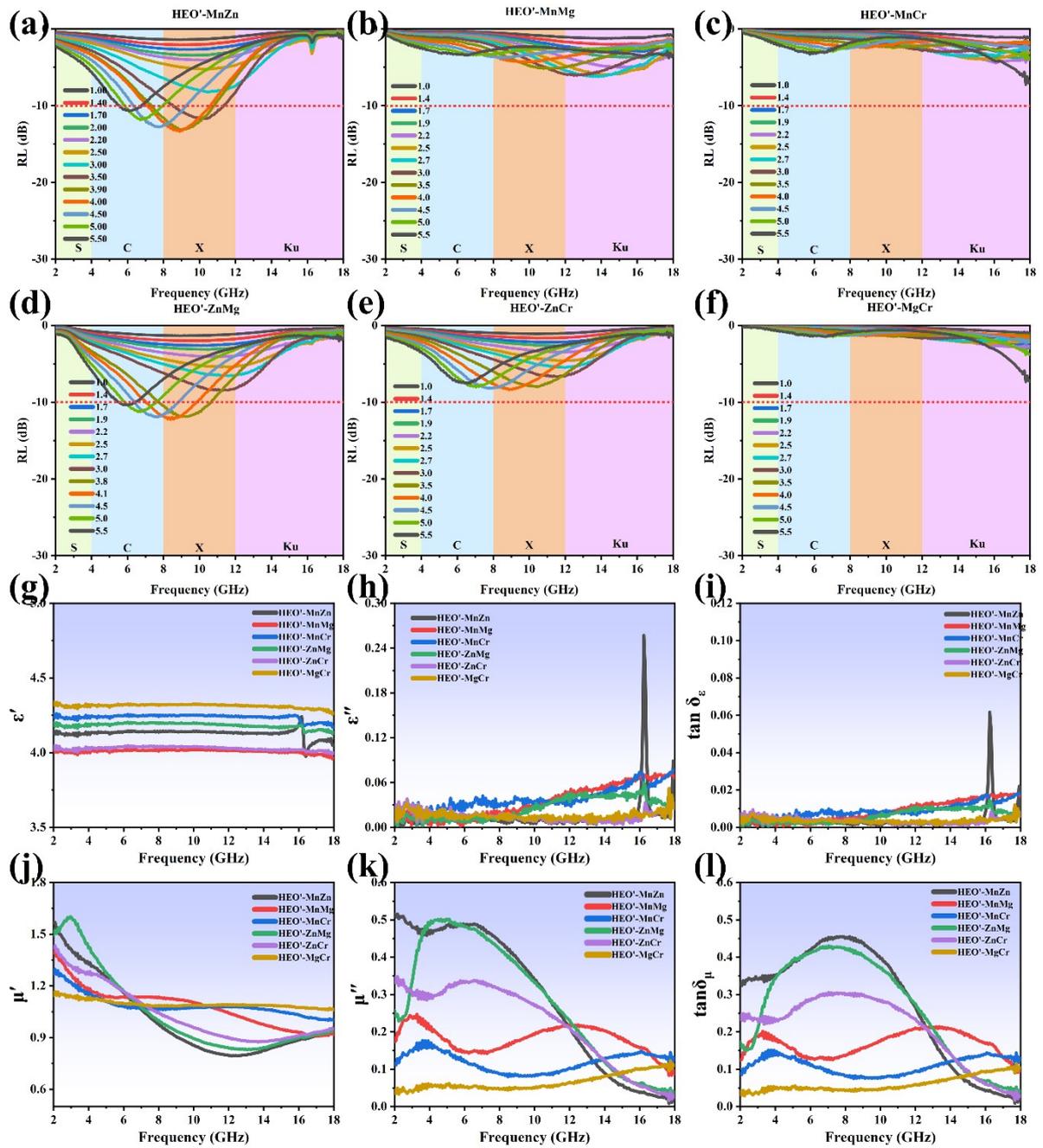
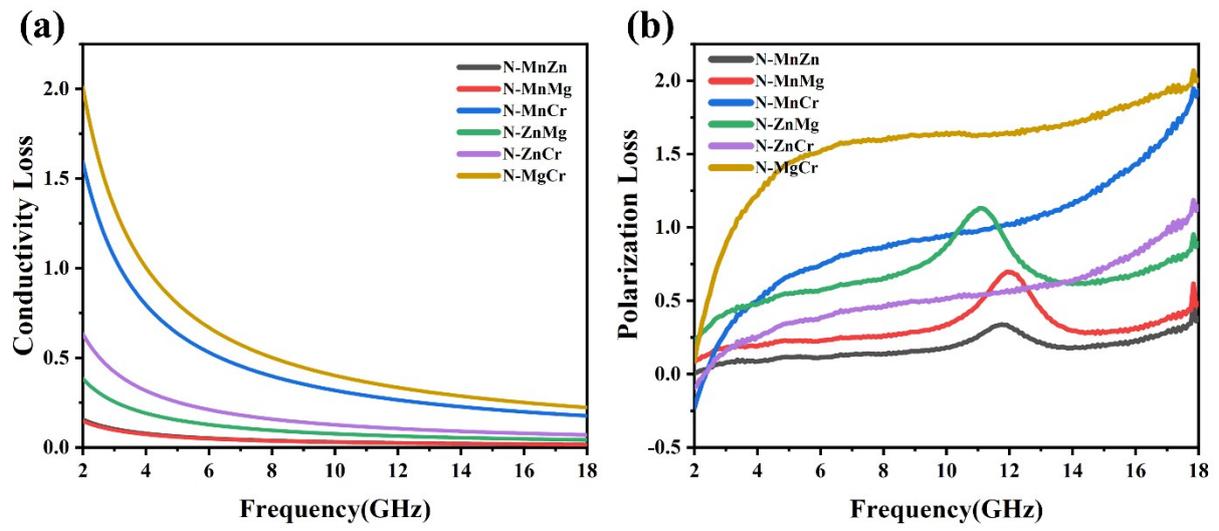**Figure S5.** (a-f) RL curves and (g-l) electromagnetic parameters of the six un-nitrided high-entropy ferrites.

Figure S6. (a) conductive loss of the six samples; (b) polarization loss of the six samples.
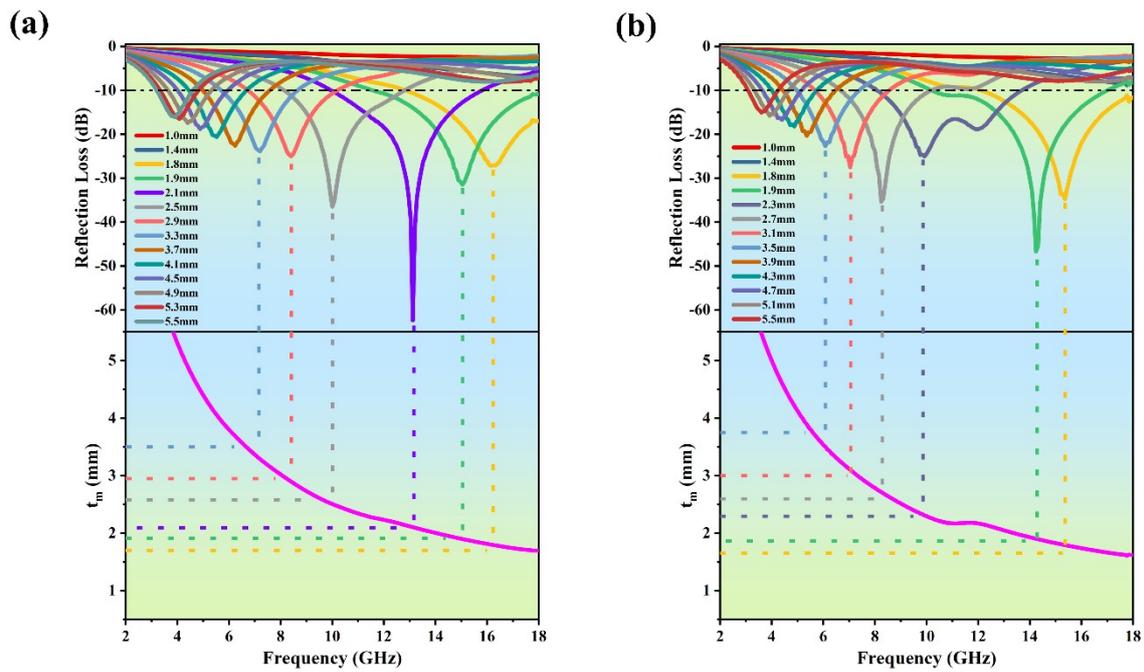
Figure S7. Plot of reflection loss (RL) versus optimal matching thickness (t_m) for (i) N-MnZn and(h) N-MnMg.