Support Information file:

**Growth of single-layer boron nitride dome-shaped nanostructures catalysed by iron clusters**

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**Figure S1:** (a) Bright field TEM image of an FLBN flake; (b) associated SADP showing hexagonal symmetry, typical for the h-BN phase; and (c) Raman spectrum of the FLBN flake.

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**Figure S2:** HRTEM of Fe$_2$O$_3$ NP with an associated particle size histogram.

**Figure S3:** The exact atomic structures circling the bottom (wall-sheet) and top (wall-cap) of the dome shaped structure modelled with molecular dynamics simulations, shown in Figure 5 of the paper. The highlighted blue and purple circles represent the atoms forming the unfavourable N-N and B-B bonds, respectively.