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## Water coordinated Ni complex and 2D Ni-MOF: Topology dependent highly enhanced electrocatalytic OER activity



Figure S1.

Molecular packing in the crystal lattice of Ni-MOF. C (grey), H (white), N (blue), O (red) and Ni (green).



Figure S2. Molecular packing and intermolecular H-bonding in the crystal lattice of Ni-C. C (grey), H (white), N (blue), O (red) and Ni (green). Dotted lines indicate the hydrogen bonding interactions. H-bond distances ranged between 2.733 and 2.980 Å.



Figure S3. PXRD patterns of (a) Ni-C and (b) Ni-MOF.



Figure S4. OER polarization curves of Ni-MOF before and after iR correction.



Figure S5. Current-time amperometric test of Ni-C.



Figure S6. FTIR spectra of Ni-MOF and Ni-C before and after catalysis.