Electronic Supplementary Material (ESI) for Nanoscale Advances.

Supporting Information

Low temperature *in situ* immobilization of nanoscale fcc and hcp polymorphic nickel particles in polymer-derived Si-C-O-N(H) to promote electrocatalytic water oxidation in alkaline media

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Supplementary figures

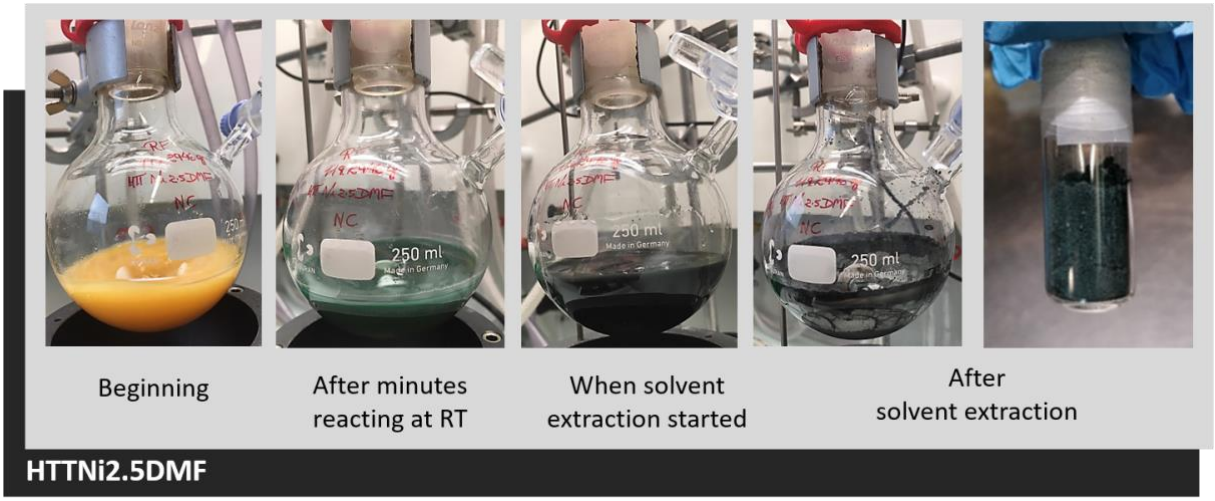


Fig. S1 Compilation of the different reaction steps to form the precursor labeled **PSZNi2.5**.

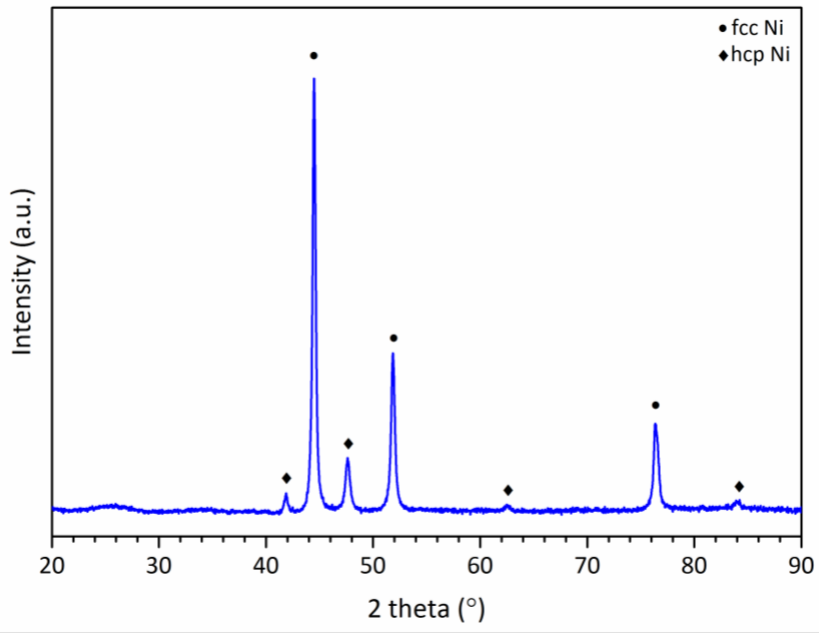


Fig. S2. XRD pattern of the **PSZNi2.5_5** sample.

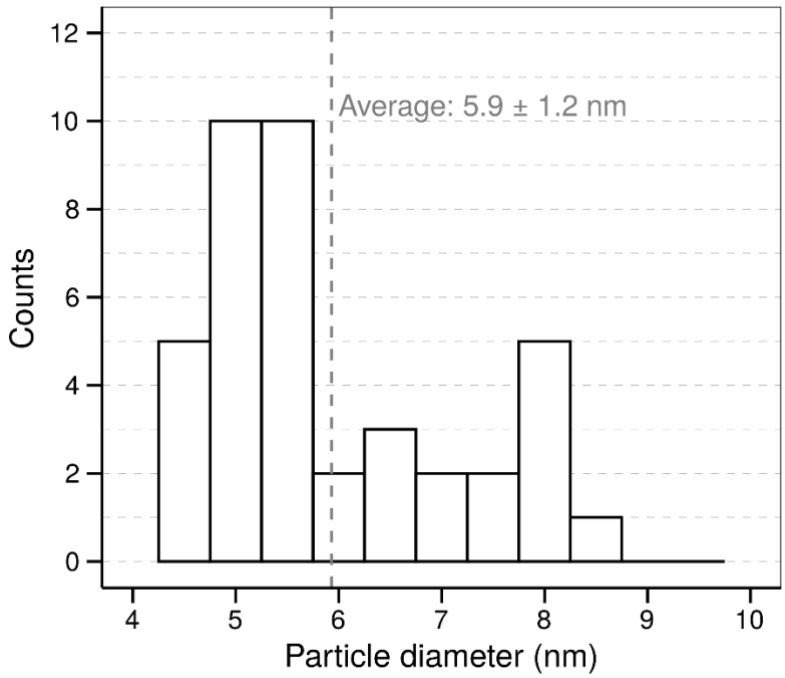


Fig. S3. Size distribution histogram of the smallest particles in Fig. 6c.

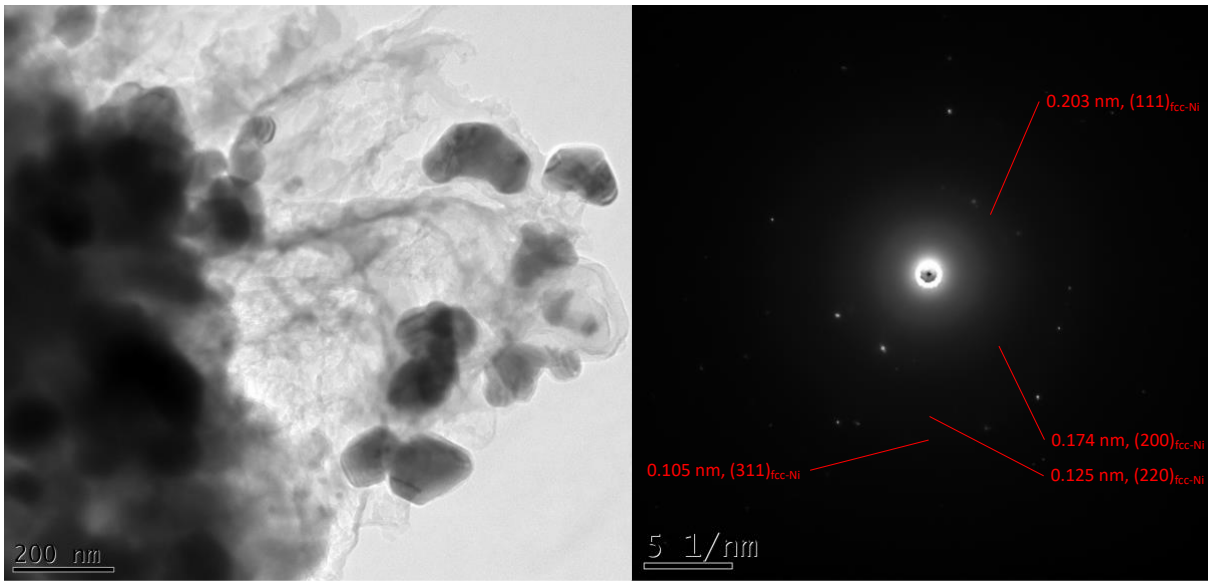


Fig. S4 TEM micrograph of a population made of bigger particles isolated in the **PSZNi2.5_5** sample and corresponding SAED pattern.

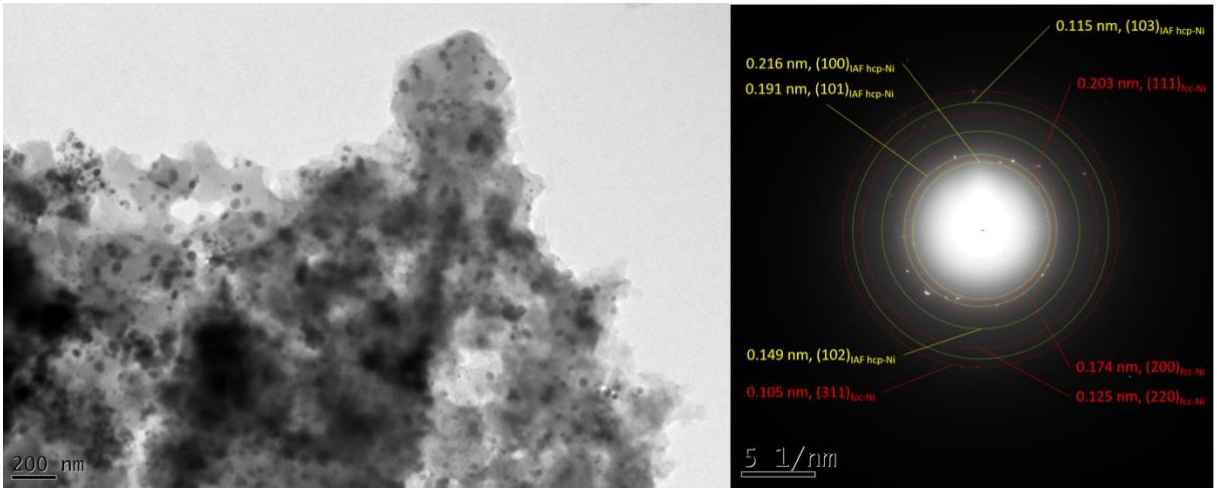
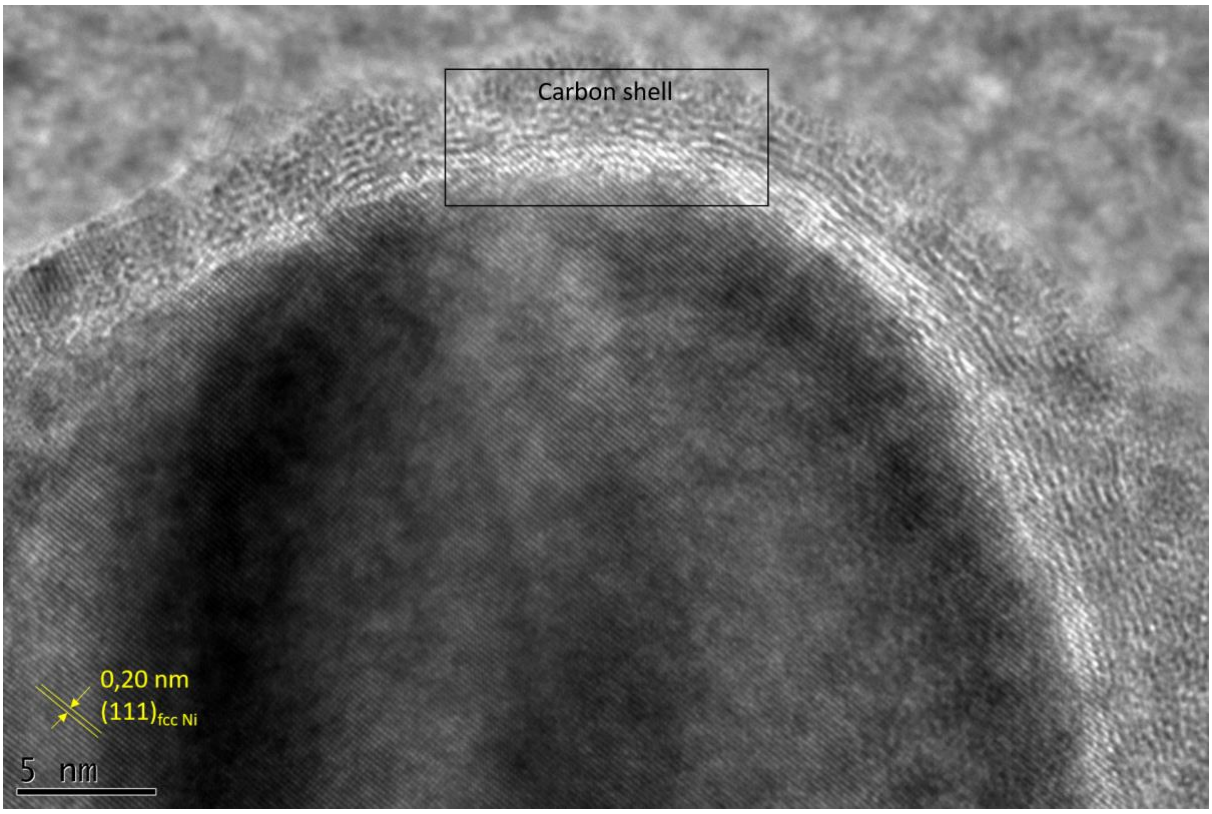
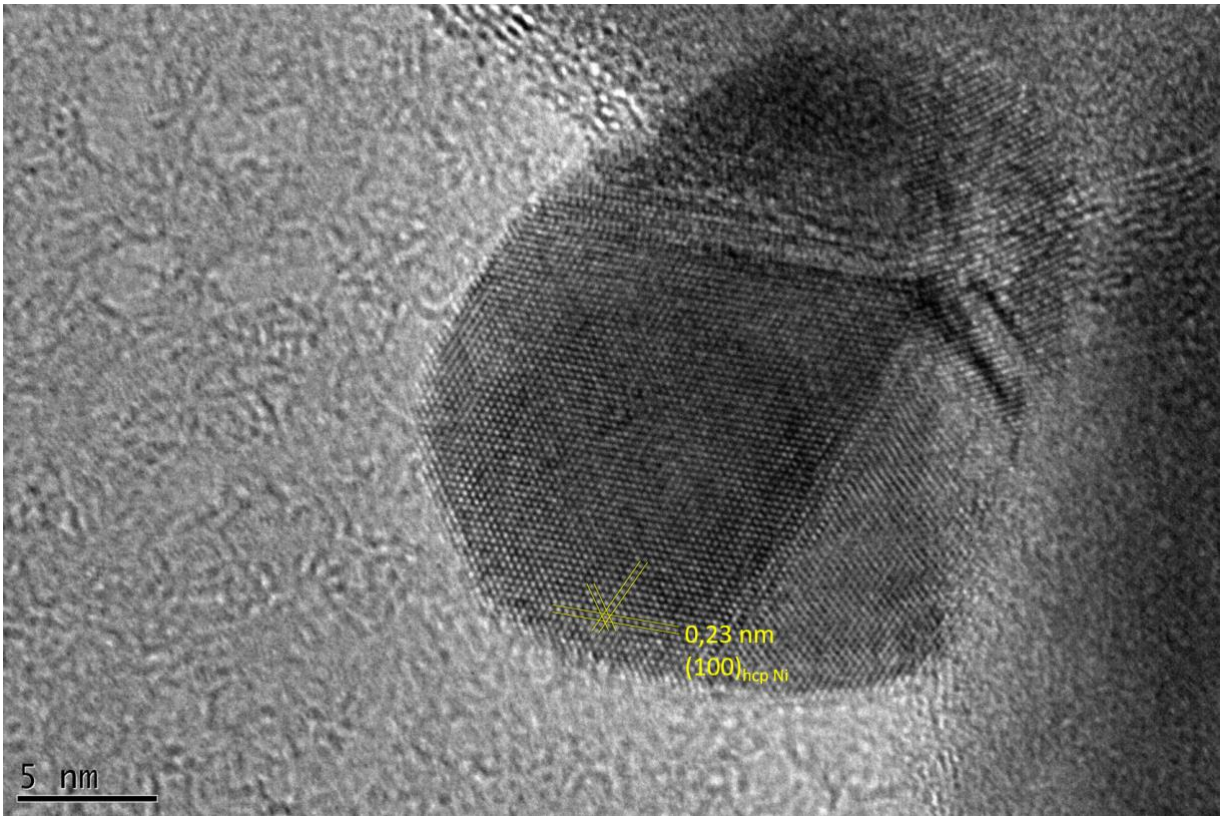


Fig. S5 TEM micrograph and corresponding SAED pattern when introducing a smallest population size of nanoparticles in the **PSZNi2.5_5** sample.



(a)



(b)

Fig. S6. Nanoparticles made of fcc Ni (core) surrounded by carbon layers (carbon shell) (a) and smallest nanoparticles made of hcp Ni (b).