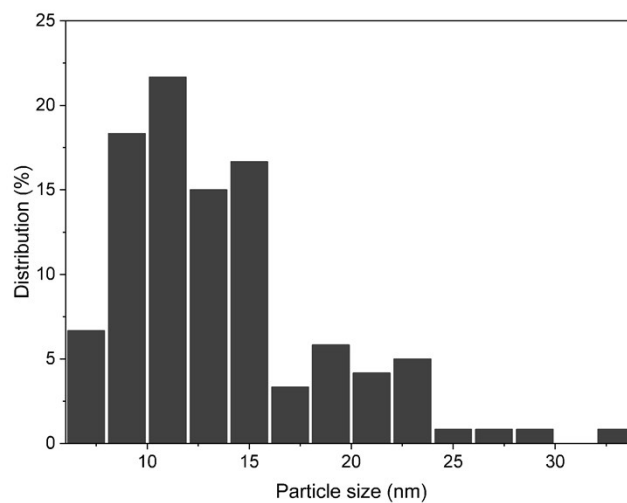


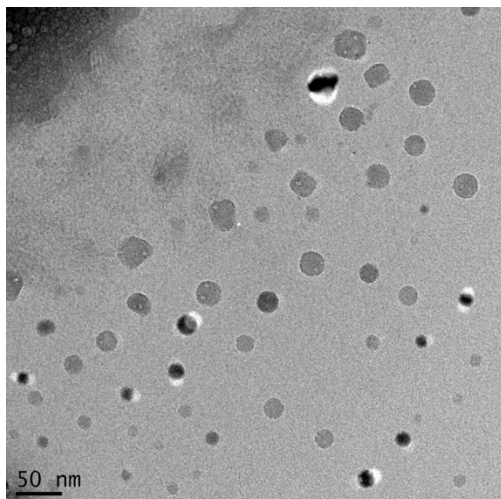
## SUPPLEMENTARY MATERIAL

### Hydrogen generation from the sodium borohydride-nickel core@shell structure under hydrolytic conditions

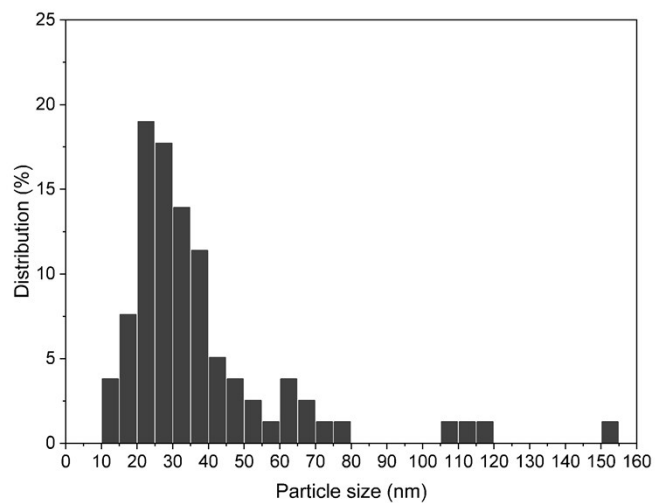
- a MERLin, School of Chemical Engineering, The University of New South Wales, Sydney, NSW 2052, Australia
- b Institut Européen des Membranes, IEM – UMR 5635, ENSCM, CNRS, Univ Montpellier, Montpellier, France



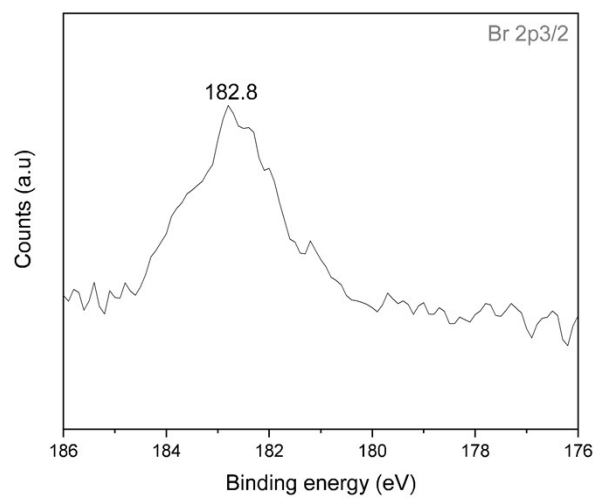
**Figure S1.** Particle size distribution of **1** (as shown in Figure 1a-c).



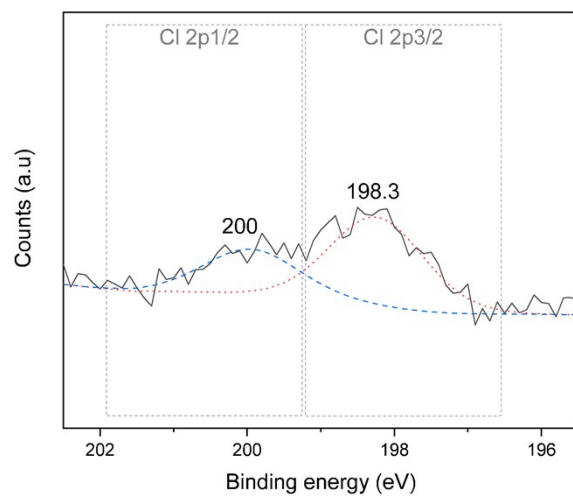
**Figure S2.** Example of larger  $\text{NaBH}_4$  particles visible by TEM analysis.



**Figure S3.** Particle size distribution for **2** (as shown in Figure 1d-f).



**Figure S4.** XPS spectrum of **2** ( $\text{NaBH}_4@Ni$ ): focus on the signal Br 2p<sub>3/2</sub>.



**Figure S5.** XPS spectrum of **3** (the nickel-based catalyst recovered after hydrolysis): focus on the signal Cl 2p.