Description of Additional Supplementary Files

File Name: Supplementary Movie 1
Description: The Supplementary Movie 1 shows the preparation of NiFe-BTC//G-2h. The synthetic process concludes 3 steps. In the first step, an electrochemical exfoliation process is conducted by anodization of graphite foil in dilute sulfuric acid solution (0.5 M, 50 mL) with using Pt foil (10 × 10 mm) as counter electrode and graphite foil (10 × 30 mm) as working electrode under 3.0 V for 30 min. The exfoliated graphite foil is rinsed with DI-water several times and dried in oven at 60 °C. Secondly, 420 mg of 1,3,5-benzenetricarboxylic acid and 240 mg of NaOH are dissolved in DI-water (75 mL) and rigorously stir for 30 min to obtain transparent solution. Then, the dilated graphite foil is put into the above solution and intercalated by 1,3,5-benzenetricarboxylic group under 5.0 V for 2h. The as-obtained graphite foil is immersed into DI-water and slightly sonicated at an ultrasonic frequency of 20 KHz for 30 min to remove the excessive organic 1,3,5-benzenetricarboxylic trisodium salt on the surface of graphite foil as well as small pieces of deciduous graphite flakes. Finally, 713 mg of NiCl$_2$·6H$_2$O and 1.21 g of Fe(NO$_3$)$_3$·9H$_2$O are dissolved in a mixed solvent of DI-water and ethanol (100 mL, V:V=1:1) and stirred for 20 min to form transparent inorganic salt solution. The treated graphite is immersed into the above solution for 24 h, during which the NiFe-BTC is in situ fabricated. The as-prepared electrode (denoted as NiFe-BTC//G-2h) is then taken out, rinsed with copious DI-water and ethanol, dried at 60 °C overnight, and directly employed to trigger the anodic reaction of water splitting without carbonization treatment.