Supplementary Materials



Figure S1. XPS spectra of main Cu p3/2 signal for all samples.



Figure S2. Representative TEM images of the (**a**) S, (**b**–**c**) SCu, (**d**–**f**) CMCu, and (**g**–**i**) CMCuGr samples.



Figure S3. Cyclic voltammograms of the electrochemical response of undoped S carbon in 0.1 M NaOH (black line) and in presence of 0.02 M PGA (red line). 40 wt.% Nafion ionomer in the catalytic ink. Third scan recorded. Scan rate 10 mV s⁻¹.