High Performance CuO@Brass Supercapacitor Electrodes through Surface Activation

Ambrish Kumar*, Arpit Thomas*, Mayank Garg, Gopinath Perumal, Harpreet S Grewal, Harpreet S Arora*
*Both authors contributed equally

Surface Science and Tribology Lab, Department of Mechanical Engineering, Shiv Nadar University, India (UP)- 201310
#Corresponding author email: harpreet.arora@snu.edu.in

Figure S1: Optical microscope image showing the microstructure for (a) as-cast brass and (b) FSP brass; Grain structure for (c) as-cast brass and (d) FSP brass using imageJ.

Figure S2: Cross-section SEM image of brass subjected to friction stir processing.
**Figure S3**: XRD analysis of AR-brass and FSP-brass specimens.

**Figure S4**: EDS analysis of (a)-(c) as-cast etched brass (AR-brass) and (d)-(f) FSP etched brass (FSP-brass)
Figure S5: Cu 2p peak fitting for (a) AR-brass and (b) FSP-brass; Zn 2p peak fitting for (c) AR-brass and (d) FSP-brass. The peak fitting was done using Casa-XPS 2.3.