



## Supporting Information

for

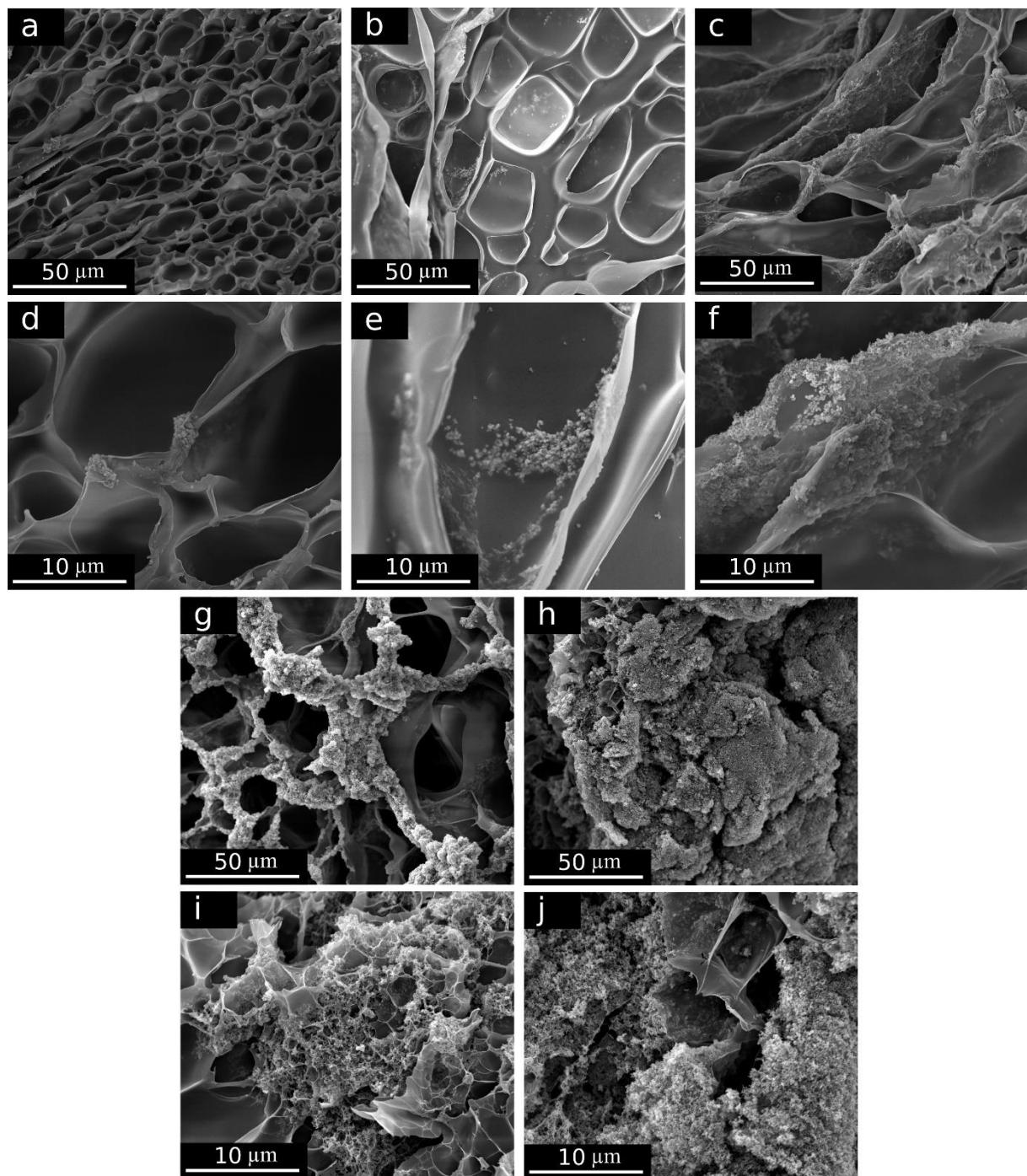
# Influence of conductive carbon and MnCo<sub>2</sub>O<sub>4</sub> on morphological and electrical properties of hydrogels for electrochemical energy conversion

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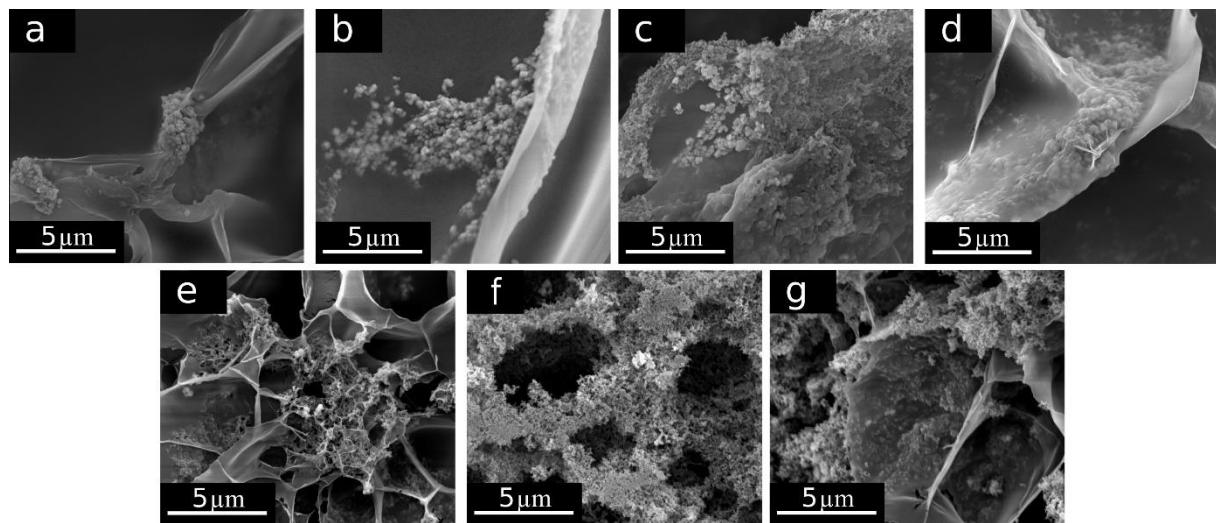
*Beilstein J. Nanotechnol.* **2024**, *15*, 57–70. doi:10.3762/bjnano.15.6

## Additional figures

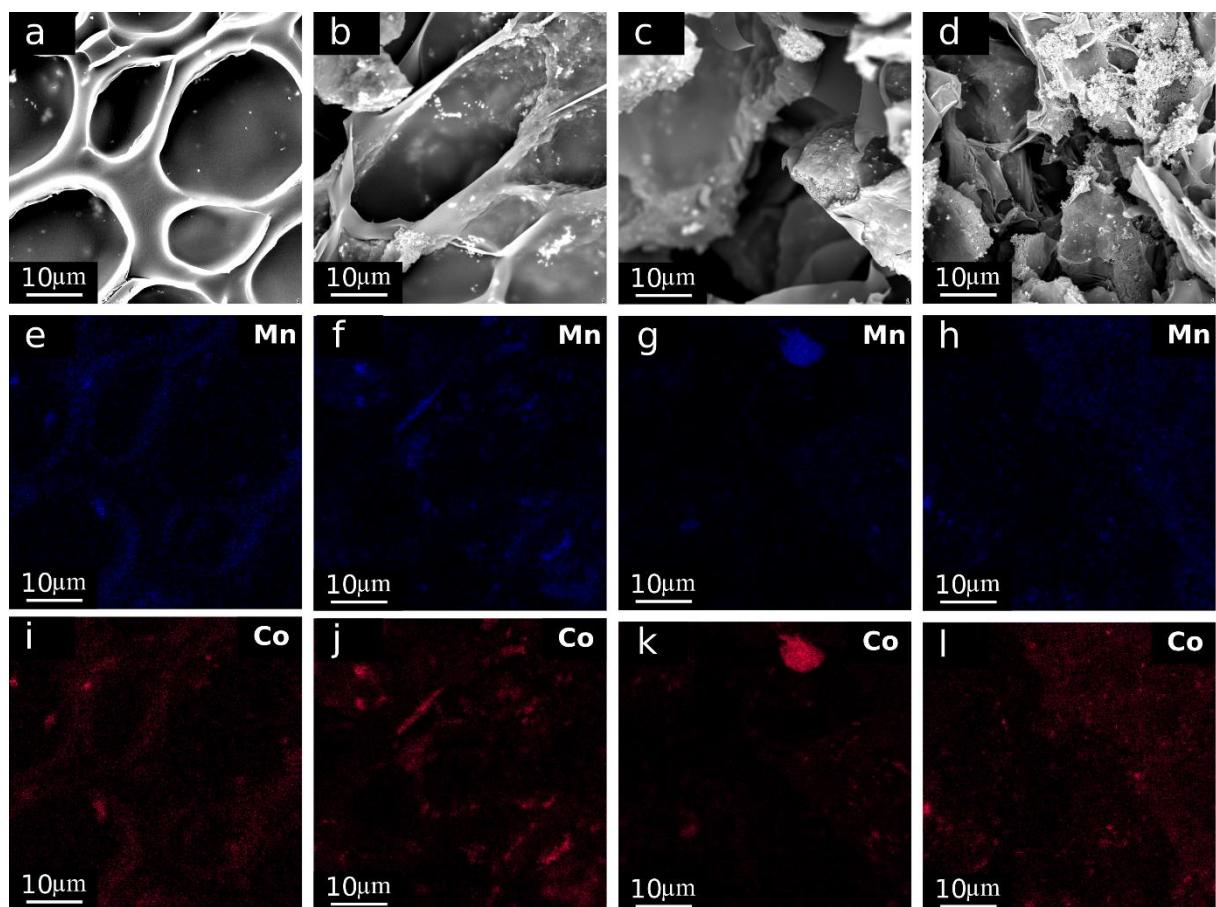
**Characterisation of hydrogel-based polymer composites with dispersed catalytic and conductive particles:**



**Figure S1:** SEM micrographs of freeze-dried nanostructures of composite hydrogel samples: Hgel-MCO (a, d), Hgel-MCO-cCB 1:1 (b, e), Hgel-MCO-cCB 1:2 (c, f), Hgel-MCO-cCB 1:4 (g, i), and Hgel-MCO-cCB 1:7.5 (h, j).



**Figure S2:** SEM micrographs in higher magnification of freeze-dried nanostructures of composite hydrogel samples: Hgel-MCO (a), Hgel-MCO-cCB 1:1 (b), Hgel-MCO-cCB 1:2 (c), Hgel-MCO-cCB 1:3 (d), Hgel-MCO-cCB 1:4 (e), Hgel-MCO-cCB 1:6 (f), and Hgel-MCO-cCB 1:7.5 (g).



**Figure S3:** EDS analysis of hydrogel composites: Hgel-MCO-cCB 1:1 (a, e, i), Hgel-MCO-cCB 1:2 (b, f, j), Hgel-MCO-cCB 1:4 (c, g, k), and Hgel-MCO-cCB 1:6 (d, h, l).