Supplementary Information

ORR in Non-Aqueous Solvent for Li-Air Batteries: the Influence of Doped MnO_2-Nanoelectrocatalyst

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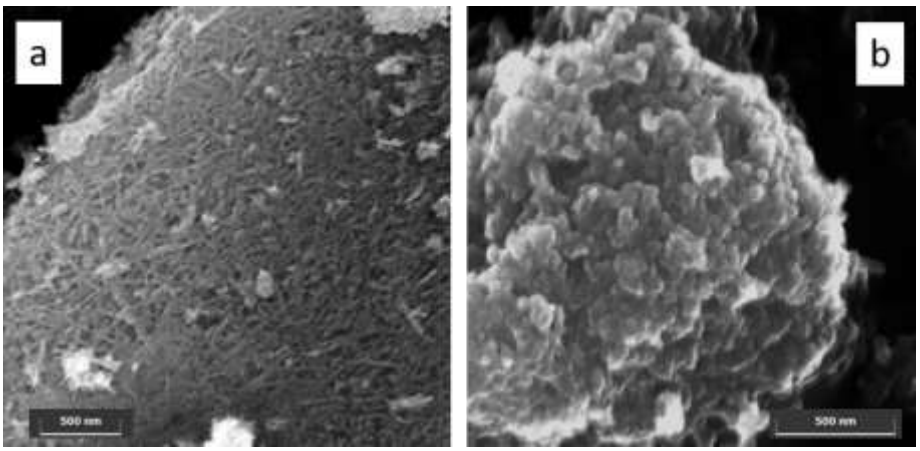

Figure 1. FEG-SEM images of (**a**) 2Co_MnO_2 and (**b**) 2Fe_MnO_2.

For the sake of clarity, a couple of FEG-SEM images referred to the 2% promoted materials was represented in Figure S1, in order to confirm the role of the dopants in modifying the final surface texture of the samples. The same trend of 5% doped MnO_2 was observed for lower dopants amount, either Co or Fe, since the system promoted by 2% Co still exhibits acicular shape of the particles (see Figure S1a) with the same characteristics of the 5% Co sample (Figure 3b). Analogously, the 2% Fe-doped MnO_2 behaves likewise to its 5% counterpart, as its particles show totally different features (see Figure 3c) if compared to the bare MnO_2: a low amount of Fe species leads to almost roundish shape with a fast tendency to aggregate (see Figure S1b).

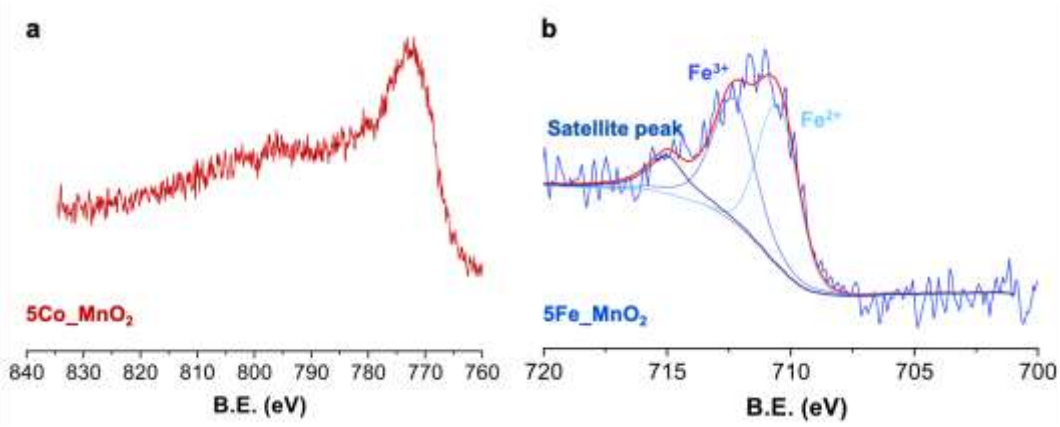

Figure S2. XP spectra of (**a**) Co 2p and (**b**) Fe 2p regions relative to 5Co_MnO_2 and 5Fe_MnO_2 respectively. The Co 2p region was not fitted since it falls within the same range of Mn 2s. Besides, the Fe high-resolution spectrum was deconvoluted into three peaks ascribable to Fe^{2+}, Fe^{3+} species and a satellite one, according to Biesinger *et al.* [65].