Electronic Supplementary Information

Investigation of In-doped BaFeO_{3-δ} perovskite-type oxygen

permeable membranes

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Figure S1. Thermal expansion curves of selected $BaFe_{1-x}In_xO_{3-\delta}$ materials recorded in dilatometry experiment.



Figure S2. O_2 -TPD profiles of $BaFe_{0.9}In_{0.1}O_{3-\delta}$ and $BaFe_{0.8}In_{0.2}O_{3-\delta}$ oxides.



Figure S3. (a) Weight loss, and (b) calculated oxygen nonstoichiometry as a function of temperature for $BaFe_{1-x}In_xO_{3-\delta}$ (x = 0.1, 0.15 and 0.2) oxides in air. Please notice that in Fig. S3(a) final weight is taken as 100%.