**SUPPLEMENTARY INFORMATION**

Low-temperature Sintering and Enhanced Stability of Fluorine-modified BaZr0.8Y0.2O3-δ Synthesised by a Sol-Gel Alkoxide Route

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Fig. S1. Cell parameters determined by refinement with internal lattice-parameter standard (CaF2) plotted against final treatment temperature for BZY20-10F (red open-squares) and halogen-free BZY20 (black open-squares). Thermal treatments were performed in Ar at 750 ºC and air at 1200 and 1650 ºC.



Fig. S2. XRD Rietveld refinement plot of BZY20-10F sintered at 1650 °C showing observed (red circles), calculated (continuous black line) and difference (continuous blue line at bottom) diffraction profiles.



Fig. S3. Comparison of the (1 1 0) peak displacement for BZY20-10F and BZY20 at a) 750 ºC and b) 1200 ºC.