# Supporting information on:

## Enhanced sinterability and electrochemical performance of solid oxide fuel cells via roll calendering process

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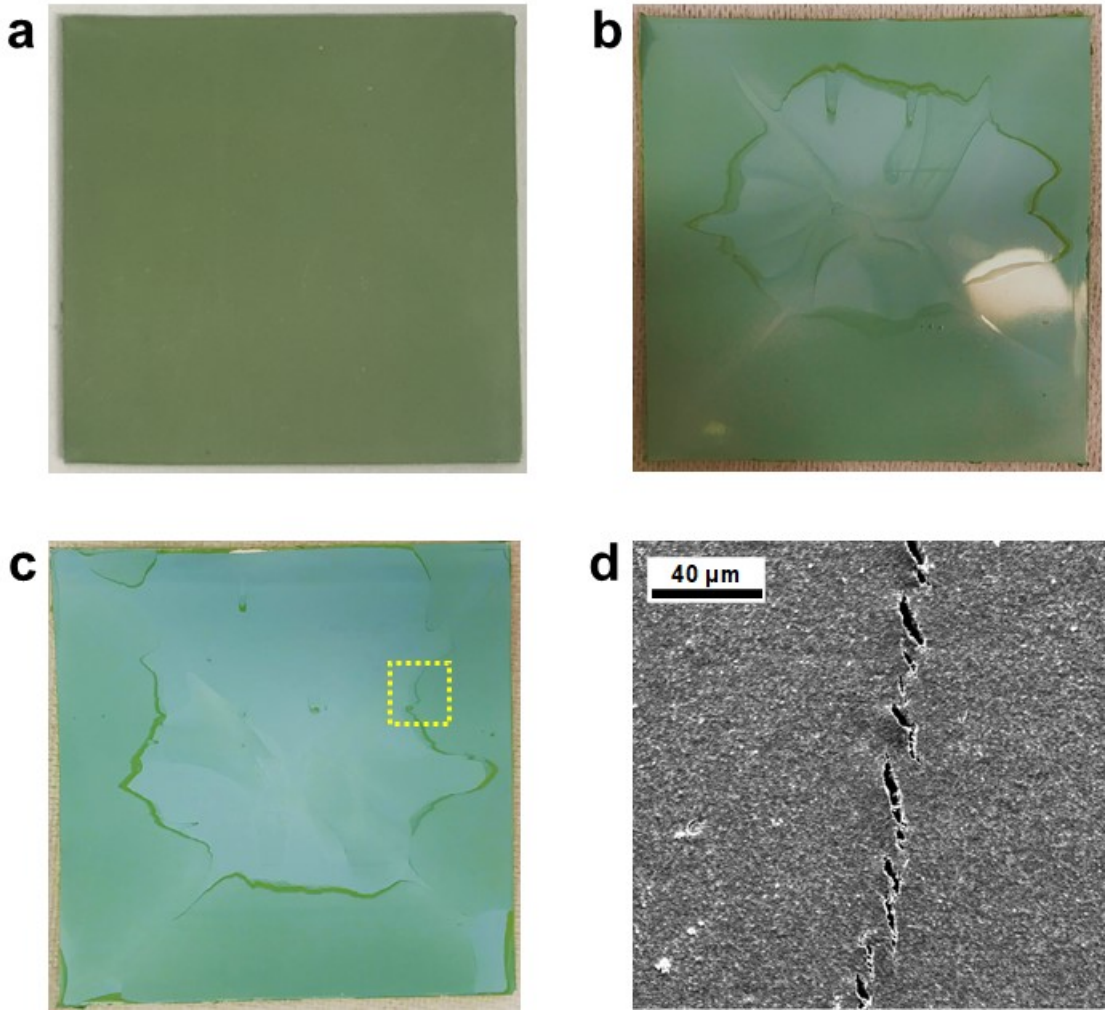


**Figure S1.** (a-c) Top views of the actual cell before (a) and after lamination using the uniaxial press with pressures of 16 MPa (b) and 18 MPa (c), respectively. (d) Microstructure of the region corresponding to the area marked by the yellow square in (c).

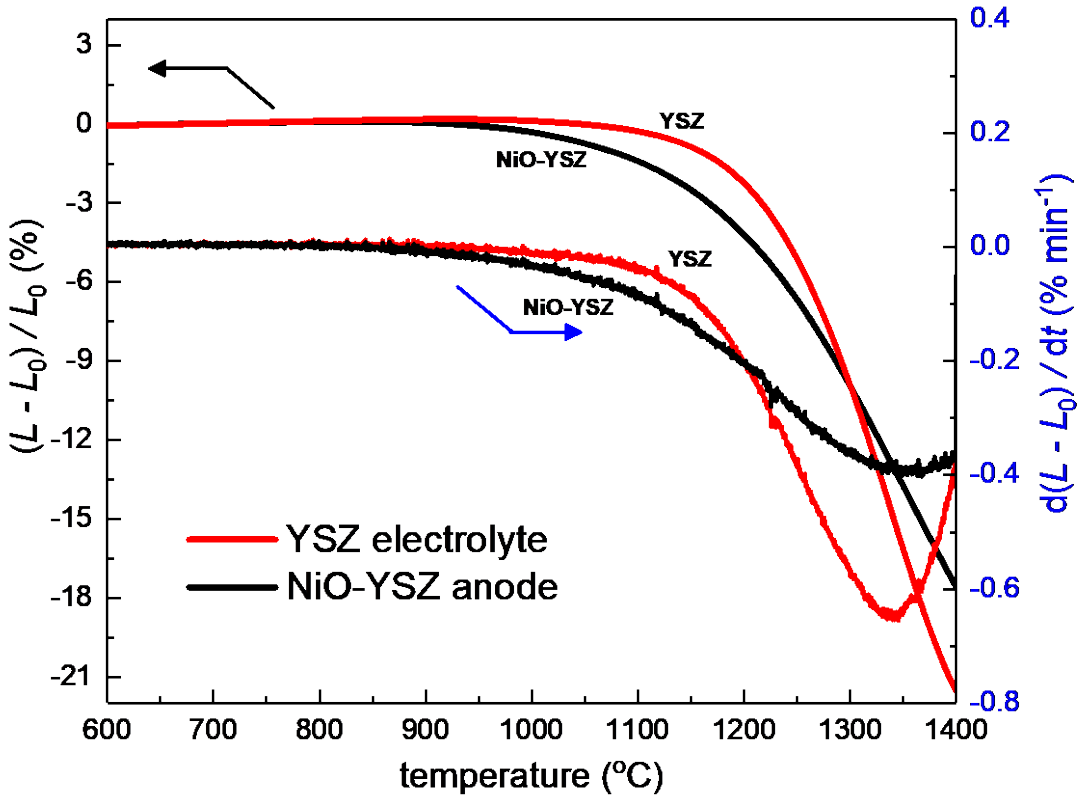


**Figure S2.** Linear shrinkages ($L$) and their rates of the NiO-YSZ composite anode (black) and YSZ electrolyte (red).

**Table S1.** Offset (ohmic) and electrochemical reaction (polarization) resistances of roll calendering cell (sintered at 1270$^{o}$C) and uniaxial press cell (sintered at 1350$^{o}$C) at various temperatures, respectively. The values are extracted from the impedance spectra shown in Figure 7.

| Temperature ($^{o}$C) | Roll calendering cell | | Uniaxial press cell | |
|---|---|---|---|---|
| | Ohmic Resistance ($\Omega$ cm$^2$) | Polarization resistance ($\Omega$ cm$^2$) | Ohmic resistance ($\Omega$ cm$^2$) | Polarization resistance ($\Omega$ cm$^2$) |
| 800 | 0.100 | 0.650 | 0.178 | 1.117 |
| 750 | 0.117 | 0.876 | 0.213 | 1.542 |
| 700 | 0.152 | 1.411 | 0.268 | 1.952 |