Electronic Supplementary Information

A new oxygen reduction electrocatalyst of barium lanthanide cobaltate for composite cathodes of proton-conducing ceramic fuel cells

Toshiaki Matsui [a), *], Kohei Manriki [a)], Kazunari Miyazaki [a)], Hiroki Muroyama [a)], and Koichi Eguchi [a)]

a) Department of Energy and Hydrocarbon Chemistry, Graduate School of Engineering, Kyoto University, Nishikyo-ku, Kyoto 615-8510, Japan

* Correspondence should be addressed to

Toshiaki Matsui

Department of Energy and Hydrocarbon Chemistry,

Graduate School of Engineering, Kyoto University,

Nishikyo-ku, Kyoto 615-8510, JAPAN

TEL: +81-75-383-7060, FAX: +81-75-383-2520

E-mail: matsui@elech.kuic.kyoto-u.ac.jp

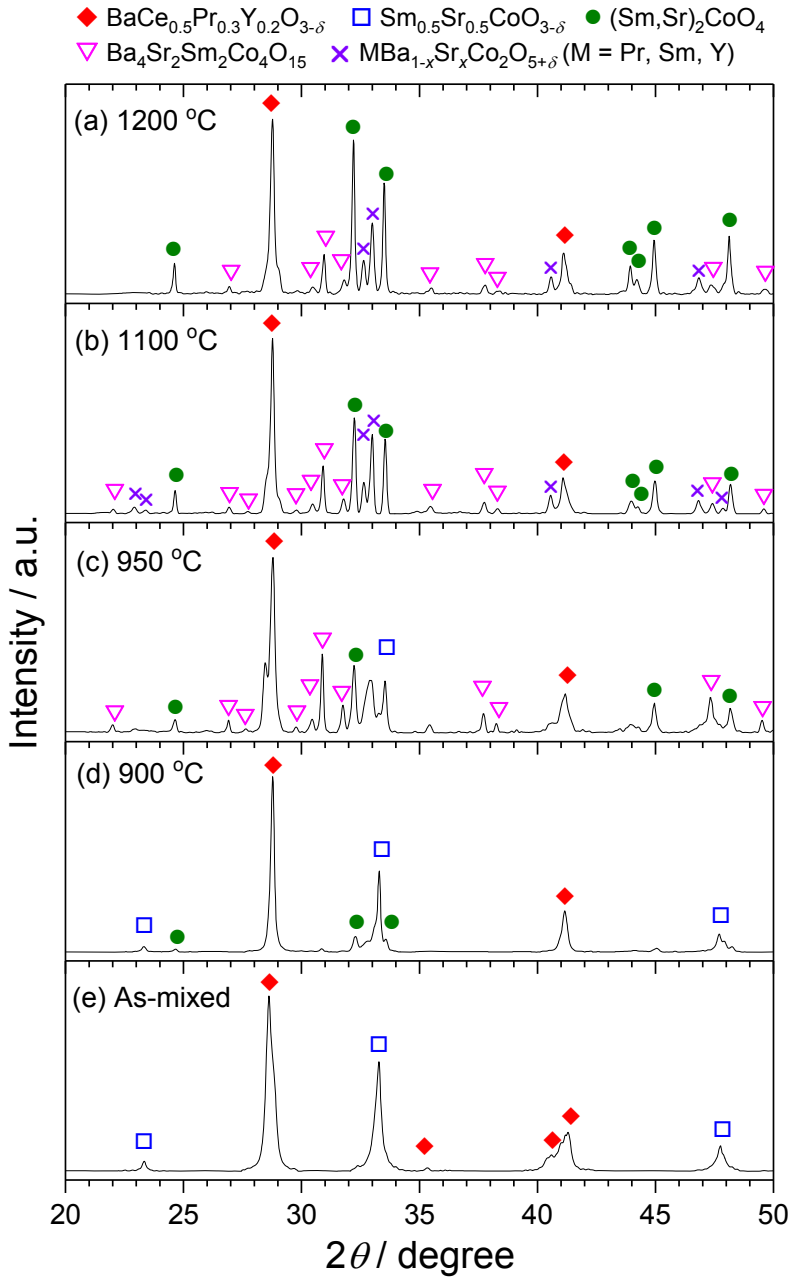

Fig. S1 XRD patterns of SSC113–BCPY (SSC113:BCPY = 50:50 wt.%) as–mixed and calcined at 900–1200 ºC for 5 h in air.

Fig. S1 T. Matsui et al.

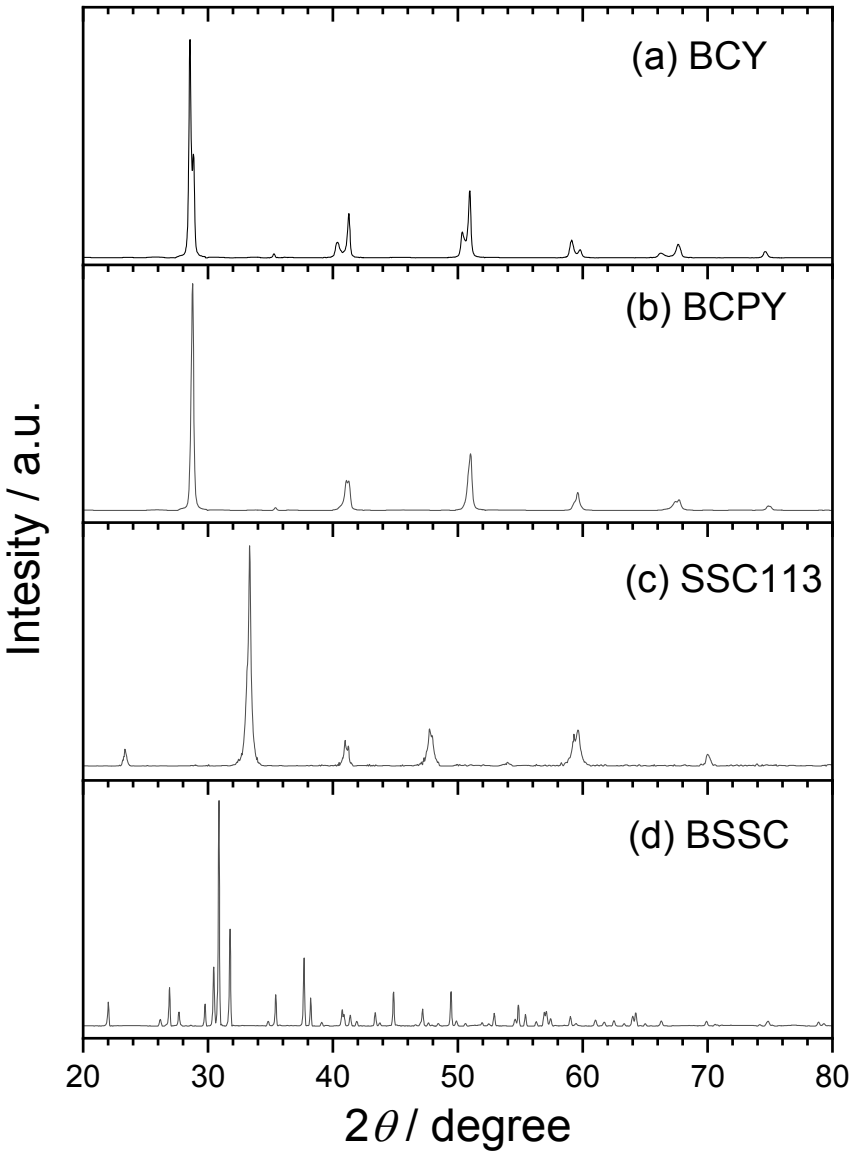

Fig. S2 XRD patters of as-prepared (a) BCY, (b) BCPY, (c) SSC113, and (d) BSSC.

Fig. S2 T. Matsui et al.

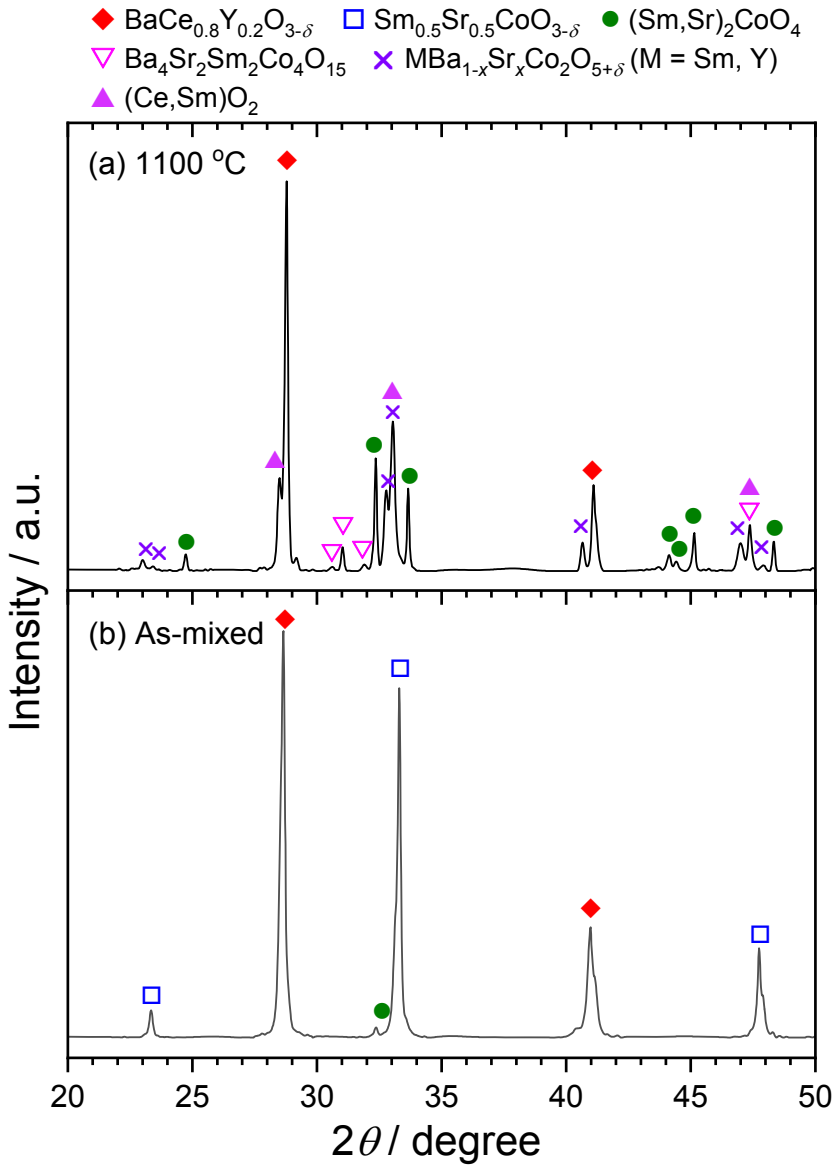

Fig. S3 XRD patterns of SSC113–BCY (SSC113:BCY = 50:50 wt.%) as–mixed and calcined at 1100 ºC for 5 h in air.

Fig. S3 T. Matsui et al.

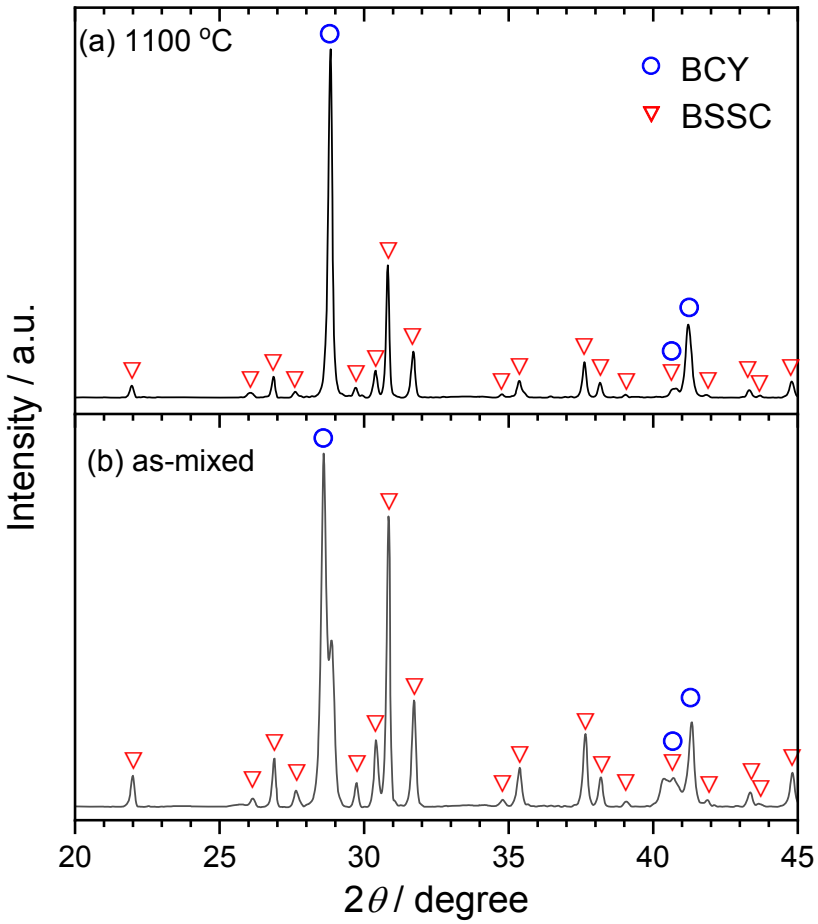

Fig. S4 XRD patterns of BSSC–BCY (BSSC:BCY = 50:50 wt.%) as–mixed and calcined at 1100 ºC for 5 h in air.

Fig. S4 T. Matsui et al.

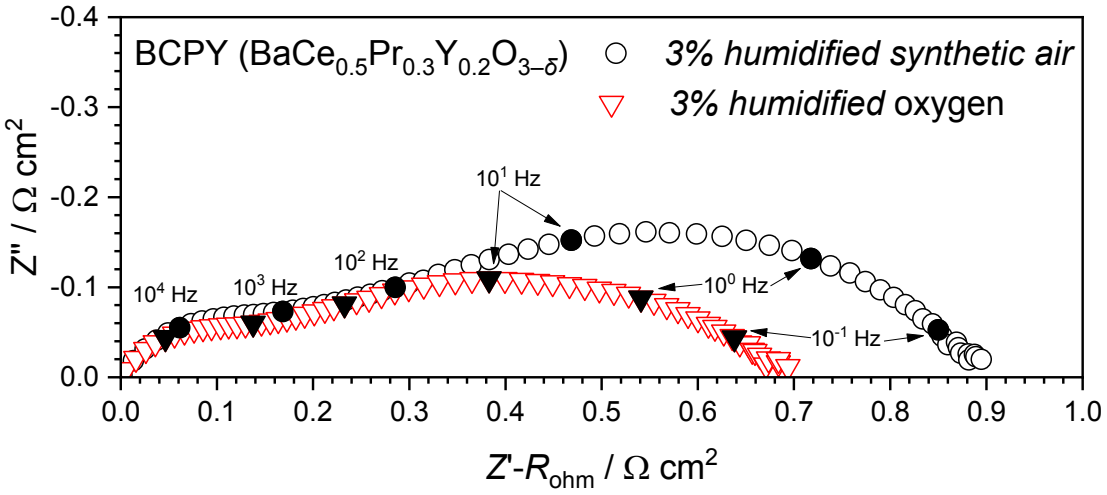

Fig. S5 Impedance spectra of BCPY electrodes at 600 ºC in 3% humidified synthetic air and oxygen. Firing temperature of electrode; 1100 ºC.

Fig. S5 T. Matsui et al.

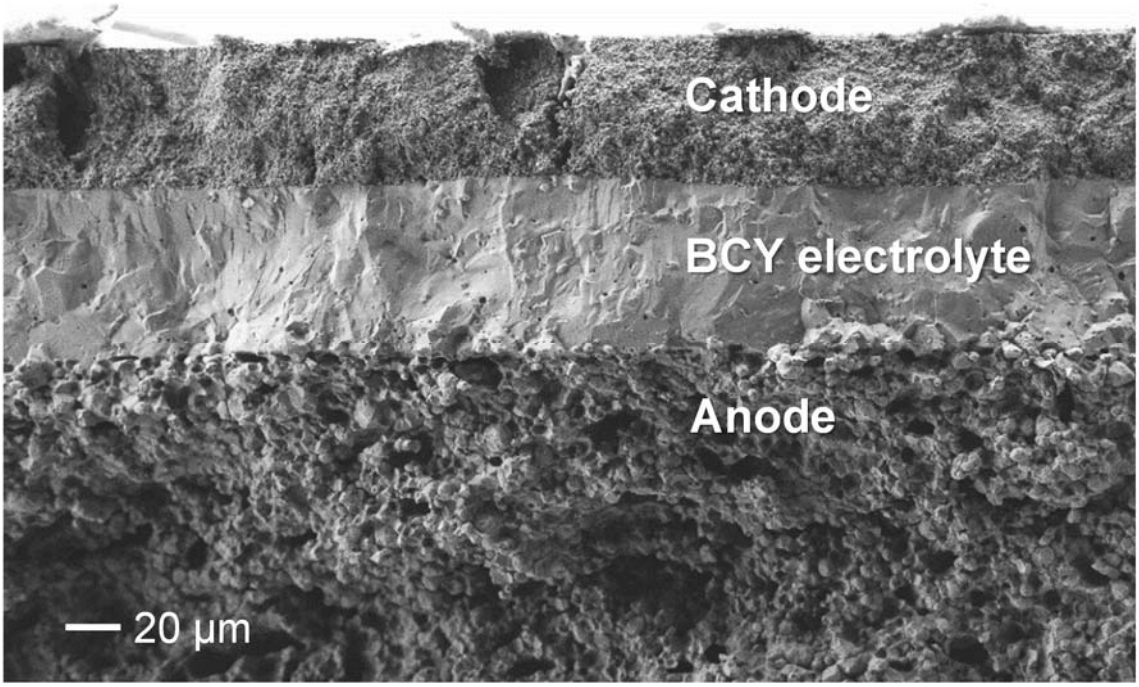

Fig. S6 Cross-sectional SE image of the anode−supported cell (Ni−BCY|BCY|BSSC–BCPY (30:70 wt.%)).

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