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Influence of $Bi_{1.5}Y_{0.5}O_3$ Active Layer on the Performance of Nanostructured $La_{0.8}Sr_{0.2}MnO_3$ Cathode

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Table S1. Theoretical and experimental cation composition of $La_{0.8}Sr_{0.2}MnO_{3-\delta}$ layer determined by EDX analysis.

Layer	La (at.%)		Sr (at.%)		Mn (at.%)	
$La_{0.8}Sr_{0.2}MnO_{3-\delta}$	Th.	Exp.	Th.	Exp.	Th.	Exp.
	40	39(1)	10	11(2)	50	50(1)

Table S2. Theoretical and experimental cation composition of $Bi_{1.5}Y_{0.5}O_{3-\delta}$ layer determined by EDX analysis.

	Bi (at.%)		Y (at.%)	
$Bi_{1.5}Y_{0.5}O_{3-\delta}$	Th.	Exp.	Th.	Exp.
	75	74(2)	25	26(1)

Table S3. Theoretical and experimental cation composition of $Zr_{0.84}Y_{0.16}O_{3-\delta}$ layer determined by EDX analysis.

	Zr (at.%)		Y (at.%)	
$Zr_{0.84}Y_{0.16}O_{3-\delta}$	Th.	Exp.	Th.	Exp.
	84	83.5(5)	16	16.5(5)

Table S4. Typical fitting parameters obtained by equivalent circuits for SP-LSM cathode.

T (°C)	R_E (Ωcm^2)	L (μH)	R_{HF} (Ωcm^2)	Q_{HF} ($m\Omega^{-1}s^n$)	n_{HF}	C_{HF} ($mFcm^{-2}$)	f_{HF} (Hz)	R_{LF} (Ωcm^2)	Q_{LF} ($m\Omega^{-1}s^n$)	n_{LF}	C_{LF} ($mFcm^{-2}$)	f_{LF} (Hz)
650	3.6(4)	0.5(5)	0.28(2)	2.3(7)	0.58(2)	0.20	2732	0.64(3)	0.33(3)	0.82(5)	0.35	705
600	7.0(5)	0.4(5)	1.28(5)	1.7(3)	0.57(5)	0.23	533	1.84(5)	0.18(2)	0.85(7)	0.30	288
550	15.1(8)	0.4(3)	6.8(4)	0.32(2)	0.67(6)	0.17	133	3.6(1)	0.13(5)	0.94(4)	0.44	97
500	37.0(8)	0.4(5)	9.9(1)	0.27(1)	0.65(5)	0.14	115	20.4(5)	0.10(3)	0.90(3)	0.25	31