

**Synthesis of FeCo-N@N-doped carbon oxygen reduction catalysts *via*
microwave-assisted ammoxidation**

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Supplementary Information

Table S1 Comparison of ORR electrocatalytic activities among earlier reported biocarbons.

Carbon precursors	$E_{\text{onset}}^{\text{a}}$	$E_{1/2}^{\text{b}}$	J_{L}^{c}	$S_{\text{BET}}^{\text{d}}$	Refs.
Lotus leaves	0.95	0.84	4.3	908	1
Coconut shells	0.95	0.76	5.3	1071	2
Seaweeds	0.96	0.82	4.5	1218	3
Gingko leaves	0.93	0.82	5.5	1436	4
Glucose	0.91	0.82	6.0	418	5
Nori algae	0.98	0.83	5.8	538	6
Eggplant	0.93	0.63	5.5	1969	7
Pomelo peels	0.88	0.79	5.2	2091	8
Bamboo fungus	1.06	0.90	3.6	1896	9
Sargassum	0.79	0.60	4.6	2289	10
Grass	0.89	0.77	3.1	-	11
Sugarcane bagasse	0.91	0.81	2.6	857	This study

^aOnset potential (V vs. RHE).

^bHalf-wave potential (V vs. RHE).

^cLimiting current density (mA cm^{-2}).

^dBET specific surface area ($\text{m}^2 \text{g}^{-1}$).

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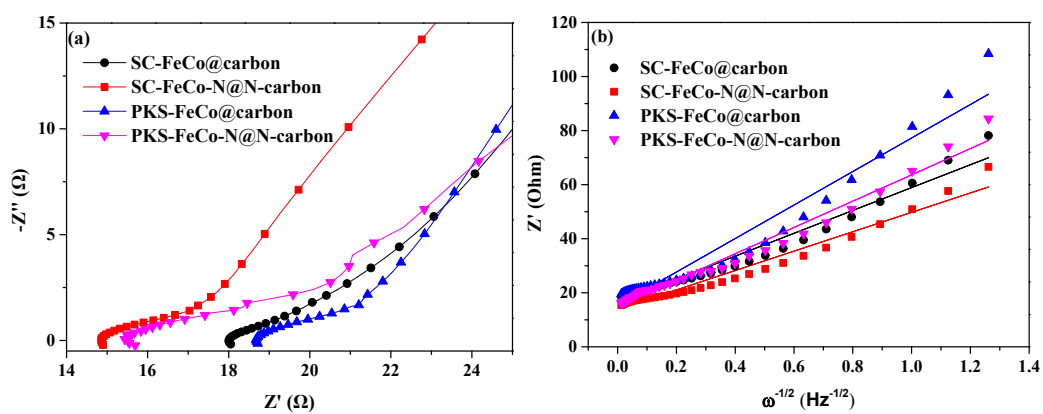


Fig. S1 (a) Nyquist plots of biomass-derived electrocatalysts. (b) Relation between Z' and $\omega^{-1/2}$ in low frequency region.