

## One-step electrodeposition of Pd-CeO<sub>2</sub> on high pore density foams for environmental catalytic processes

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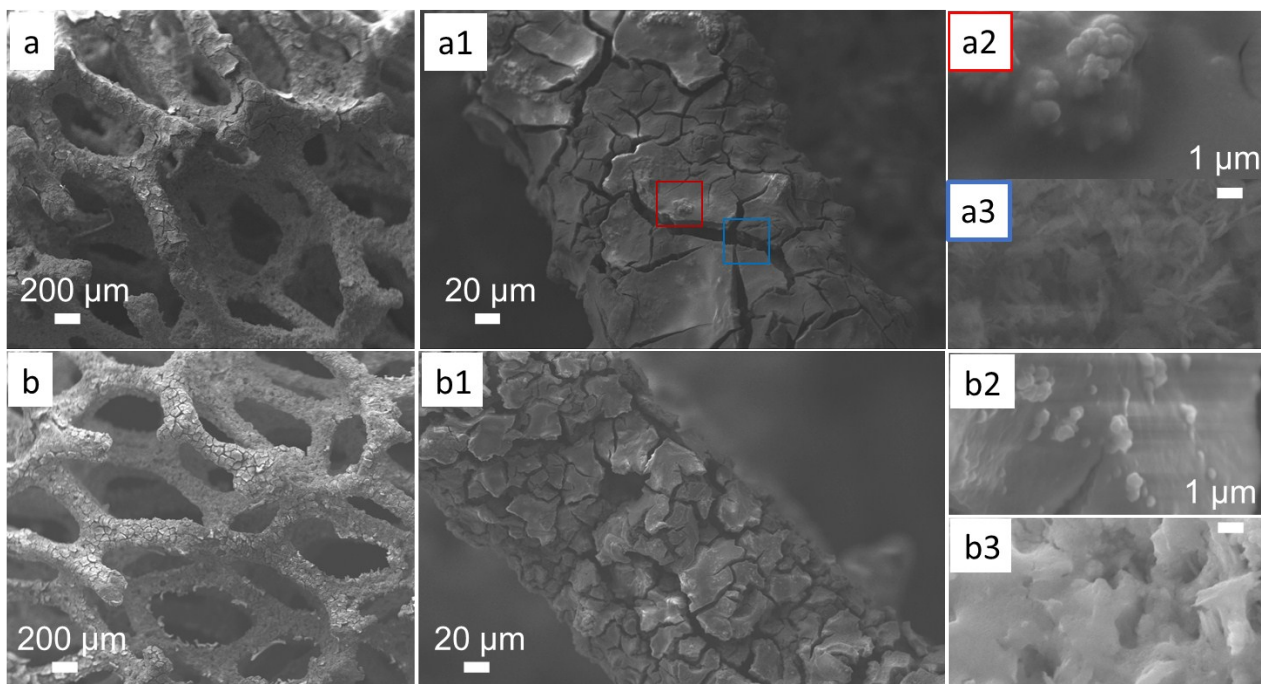
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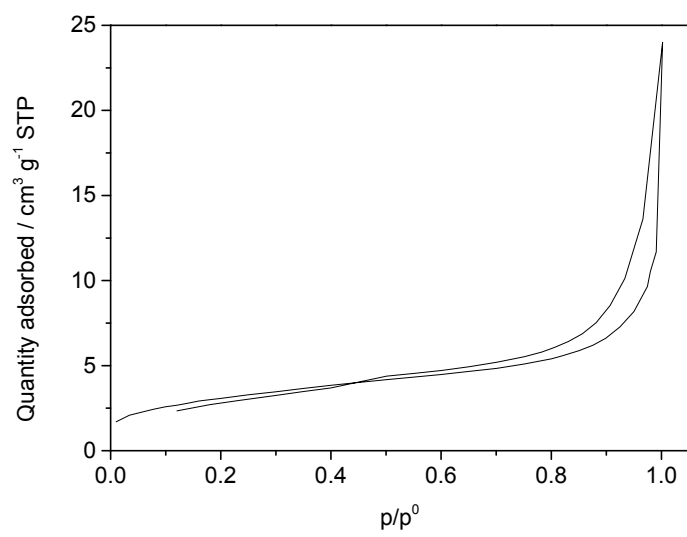
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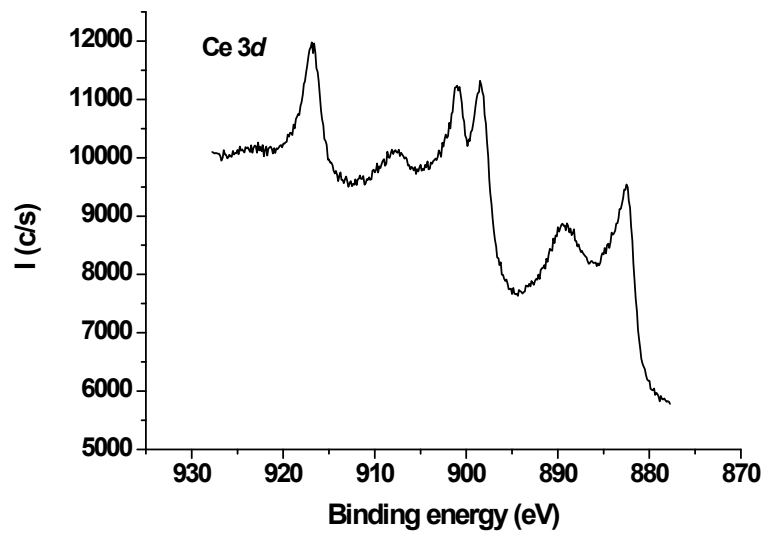
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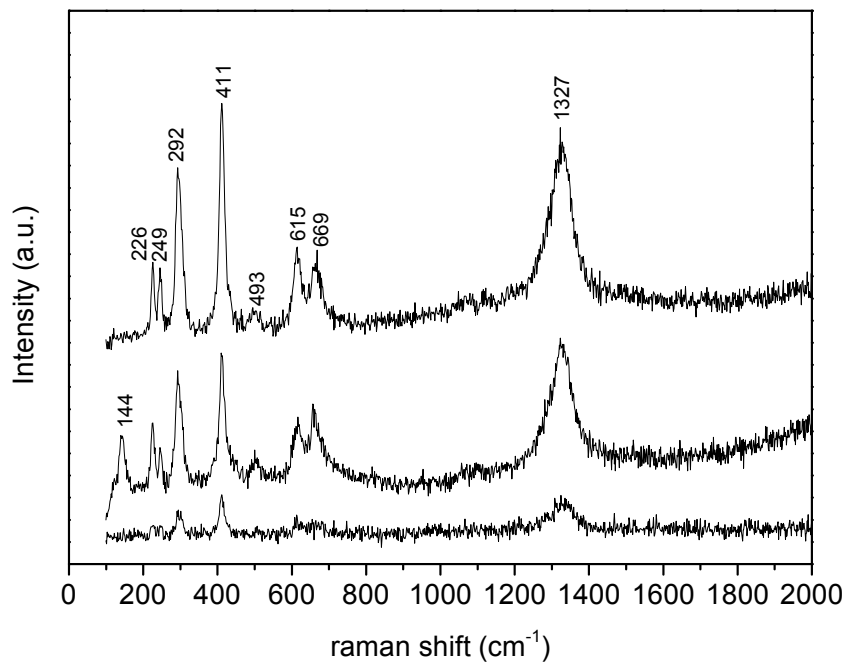
**Fig. S1.** SEM images of Pd-CeO<sub>2</sub> coated on a 1200 μm foam after electrodeposition (a, a1, a2, a3) and calcination at 550 °C for 10 h (b, b1, b2, b3).



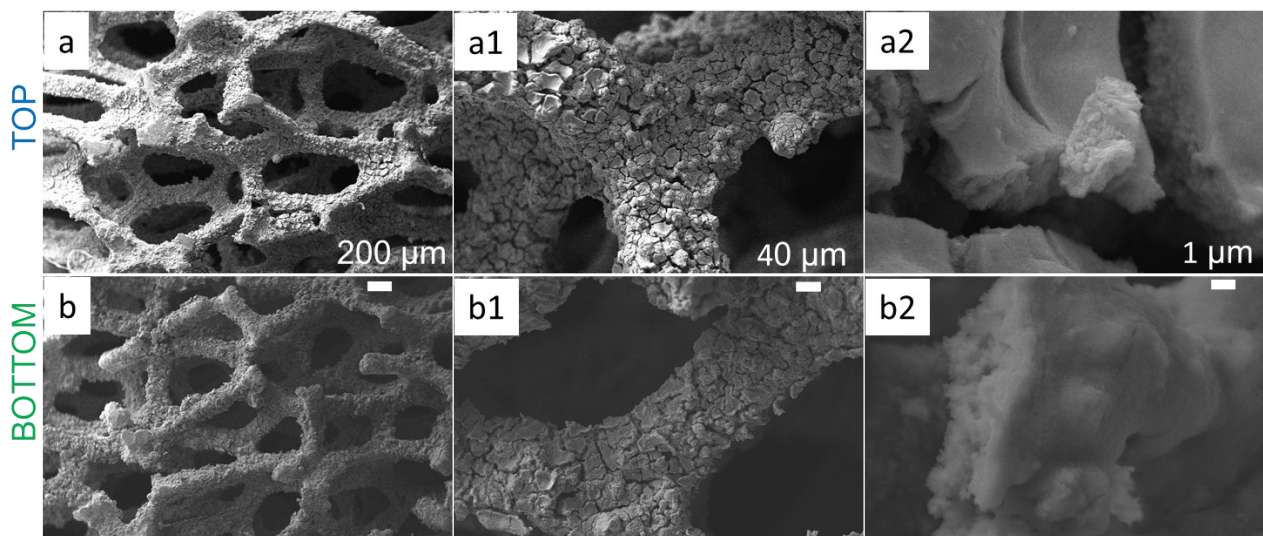
**Fig. S2.** N<sub>2</sub> adsorption-desorption isotherm of Pd-CeO<sub>2</sub> coated on 580 μm foam.



**Fig. S3.** Ce 3d core level spectrum of Pd-CeO<sub>2</sub> electrodeposited on 580 μm foam.



**Fig. S4.** Raman spectra of bare foam (580  $\mu\text{m}$ ) calcined at 550  $^{\circ}\text{C}$  for 10 h.



**Fig. S5.** SEM images of spent PdCeO<sub>2</sub> 1200 μm foam catalyst: (a, a1, a2) top catalytic bed; (b, b1, b2) bottom catalytic bed.