

Supporting Information

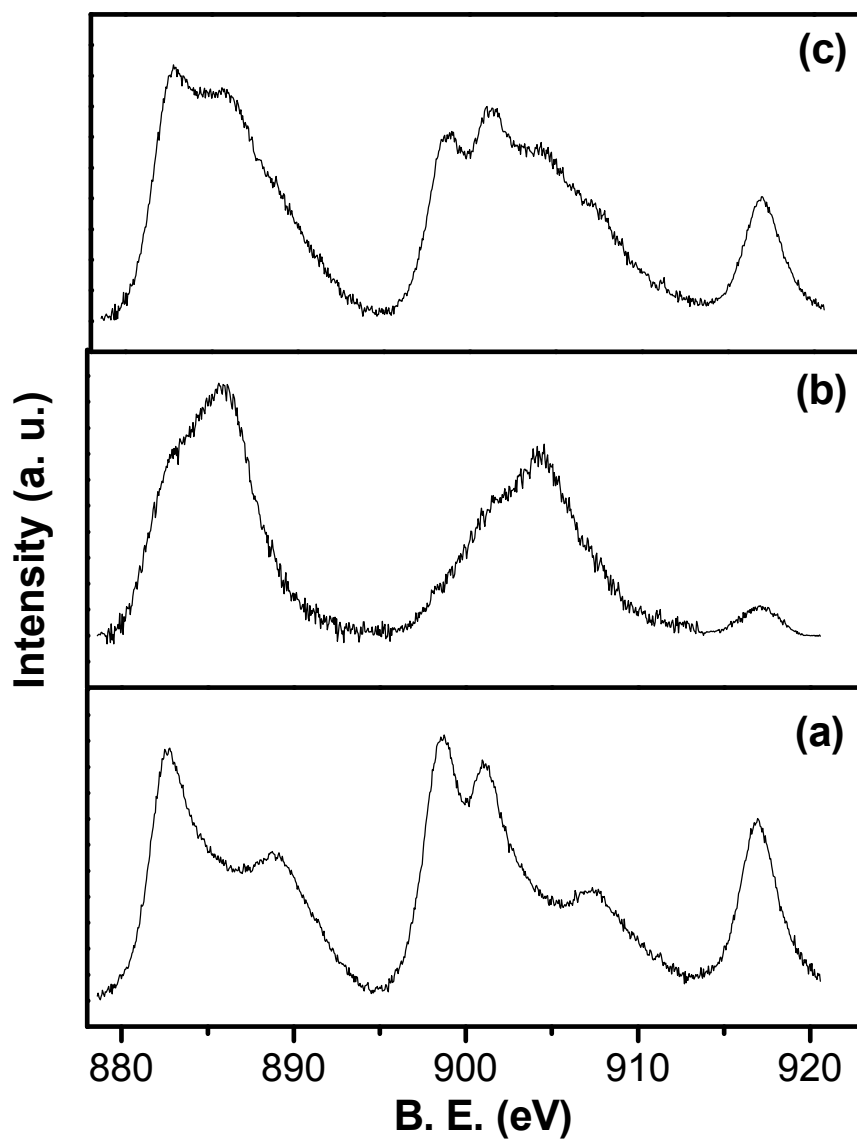


Figure S0 XPS of Ce(3d) core level spectra in (a) CeO_2 ; (b) Ce_2O_3 and (c) Ce(3d) core level spectrum obtained by the addition of CeO_2 and Ce_2O_3 in the ratio of 60:40.

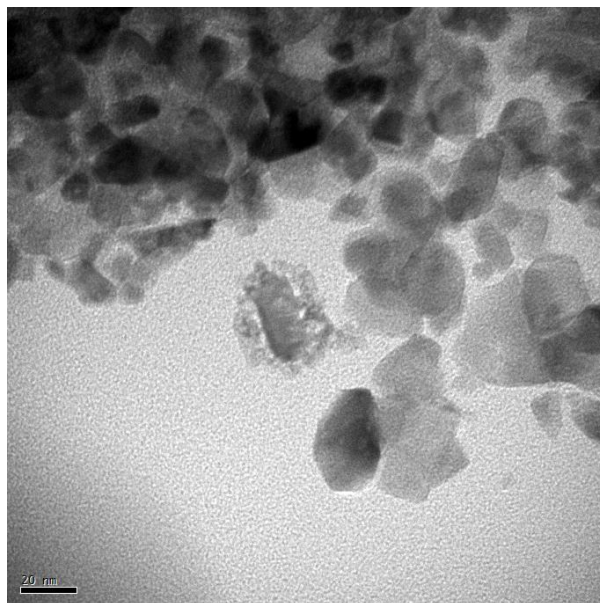


Fig. S1 TEM image of CeO₂ showing the cubic crystallites of CeO₂. Particle size ranges from 25-30 nm. Details are given in the manuscript text on page 5 and 6.

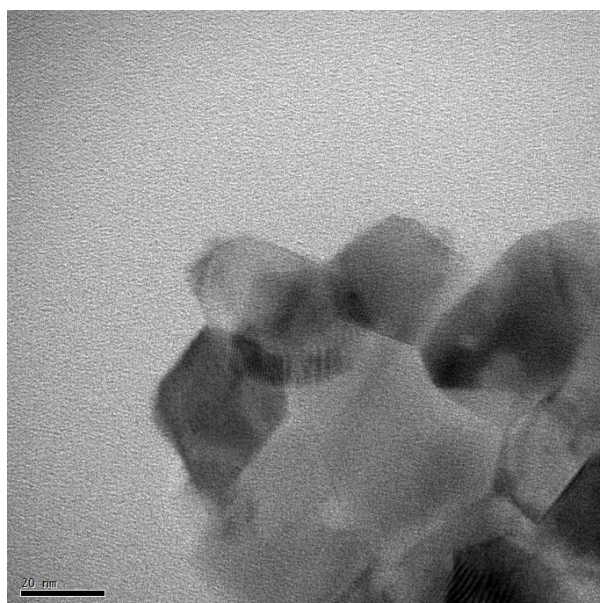


Fig. S2 TEM image of Ce_{0.98}Pd_{0.02}O_{2-δ} showing the cubic crystallites of CeO₂ and no separated Pd metal particles are seen. Particle size ranges from 30-40 nm. Details are given in the manuscript text on page 5 and 6.

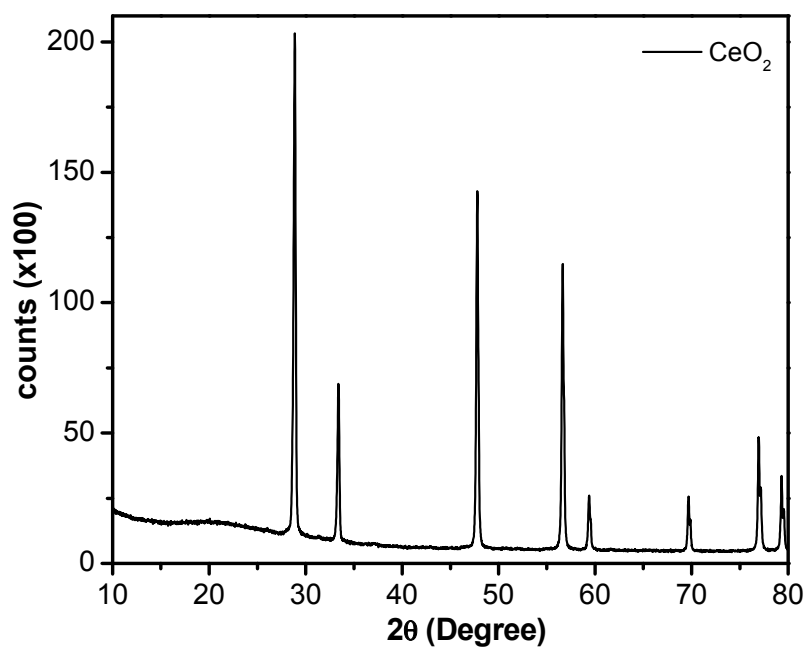


Fig. S3 XRD pattern of CeO_2 .

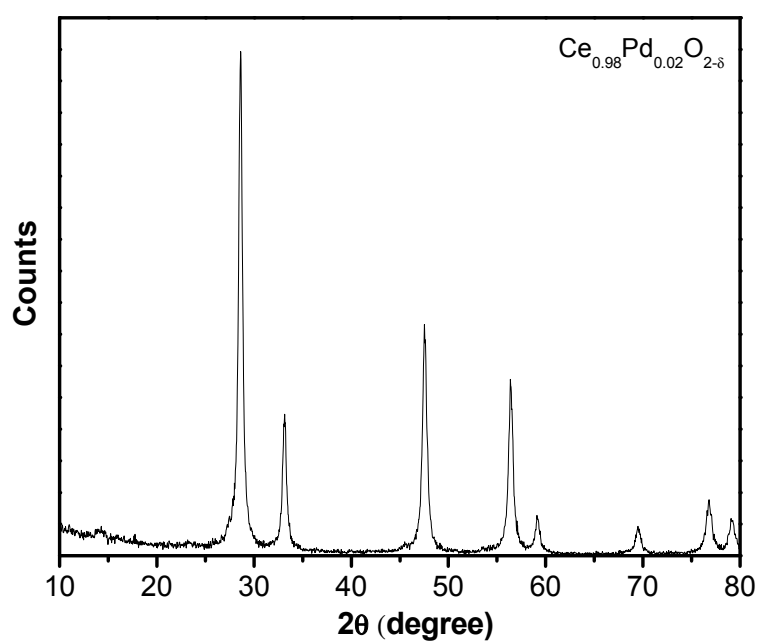


Fig. S4 XRD pattern of $\text{Ce}_{0.98}\text{Pd}_{0.02}\text{O}_{2-\delta}$ which does not show any peak related to Pd metal and PdO .