

Article Catalytic Soot Oxidation Activity of NiO-CeO₂ Catalysts Prepared by a Coprecipitation Method: Influence of the Preparation pH on the Catalytic Performance

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 - 100 100 (a) 275.51°C ,271.95°C (b) 98 98 3 20/ 96 3.2% (%/min Deriv. Weight (%/min) 96 94 Weight loss (%) Weight loss (%) 94 92 1.5 8 7% Weight (92 90 8.29 1.0 90 88 70.02°C 86 213.1°C 88 2.1% 0.5 100.1°C 84 80 0.04 476.17°C n n 82 84 <mark>. الما</mark> 900 0 00 80 100 200 300 400 500 600 700 800 100 200 300 400 500 600 700 800 900 Temperature (°C) Temperature (°C) 291.11°C 100 (c) 98 90 Weight loss (%) 94 92 **Deriv. Weight** 90 88 92.61°C 478.4°C 80 84 82 100 200 400 500 600 700 800 300 900 Temperature (°C)
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Figure S1. TGA Profile of Ni-Ce-pH catalysts: (a) Ni-Ce-8; (b) Ni-Ce-9 and (c) Ni-Ce-10.





Figure S2. FTIR Spectrum of Ni-Ce-pH catalysts before calcination: (a) Ni-Ce-8; (b) Ni-Ce-9 and (c) Ni-Ce-10.



Figure S3. Ozawa plots at different soot conversion over (**a**) Ni-Ce-8; (**b**) Ni-Ce-9 and (**c**) Ni-Ce-10 at different soot conversion levels (x%), with (β) different heating applied during the soot oxidation, and T_x (temperature at 'x%' conversion). Reaction conditions: TGA, catalyst: soot—20:1 (w:w), contact: tight, β = 10, 15, 20 and 25 °C/min, air/N₂ flow = 100mL/min (air/N₂ : 60%/40%).



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