

Electronic Supporting Information

**Novel [Ce_{1-x}La_xO₂, La_{2-y}Ce_yO₃]/Bi₂Mo_{0.9}W_{0.1}O₆ Catalysts for CO
Oxidation at Low Temperature**

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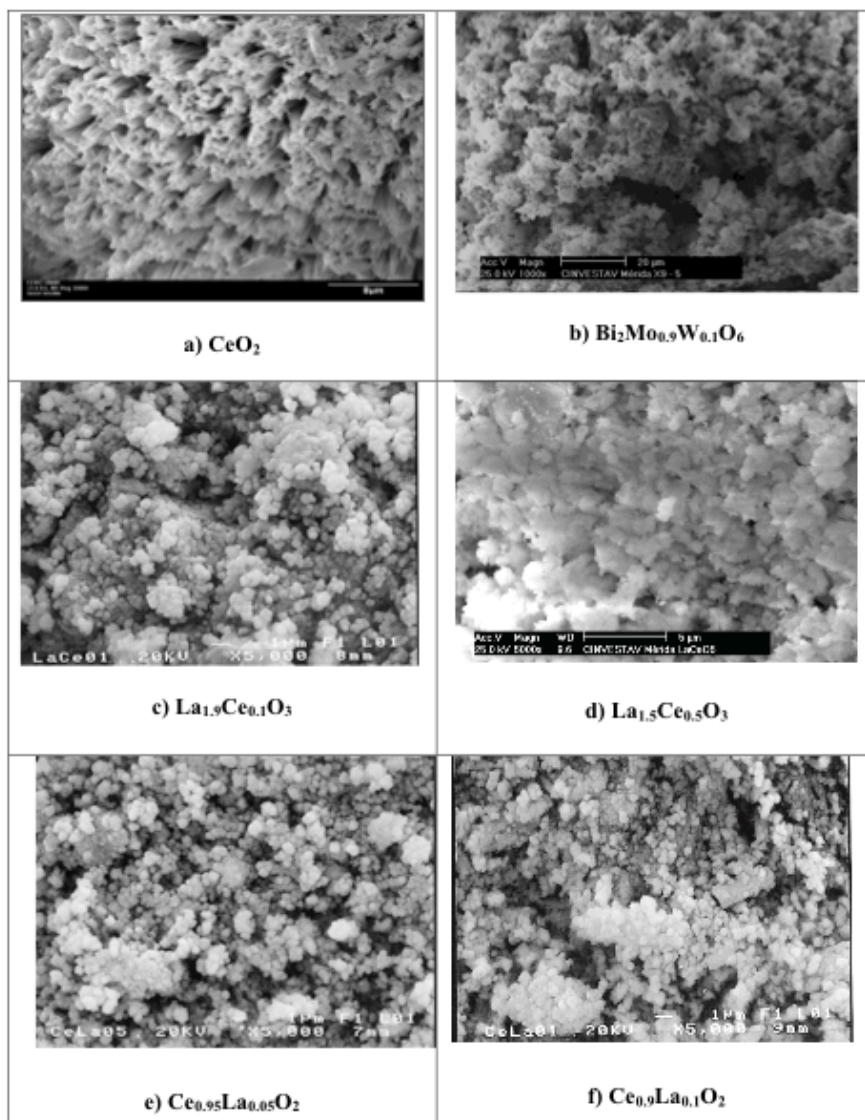
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Figure S1. SEM images of CeO_2 , $\text{Bi}_2\text{Mo}_{0.9}\text{W}_{0.1}\text{O}_6$, and $\text{La}_{1.9}\text{Ce}_{0.1}\text{O}_3$, $\text{La}_{1.5}\text{Ce}_{0.5}\text{O}_3$, $\text{Ce}_{0.9}\text{La}_{0.1}\text{O}_2$, $\text{Ce}_{0.9}\text{La}_{0.1}\text{O}_2$ compounds supported on $\text{Bi}_2\text{Mo}_{0.9}\text{W}_{0.1}\text{O}_6$.



Through SEM microscopy the catalysts were analysed to observe their morphology. The CeO_2 compound, Figure 3 S1 a), shows a fiber-like morphology, with an average length of 0.25 μm . Their shape and size are homogeneous. Regarding the $\text{Bi}_2\text{Mo}_{0.9}\text{W}_{0.1}\text{O}_6$, it shows spongy-like grains with an average size of 5.00 μm (see Figure S1 b). In the case of the La-Ce system for a dopant concentration of $x=0.1$ the formation of a homogeneous phase it is observed, consisting in rounded crystals close to 0.50 μm size. For a concentration of $x=0.5$ cerium, the size of the grains is increased up to 1 μm . $\text{La}_{1.9}\text{Ce}_{0.1}\text{O}_3$ compound showed rounded grain morphology with an average size below 1 μm (see Figure S1 c). Increasing the dopant content up to $x=0.5$ ($\text{La}_{1.5}\text{Ce}_{0.5}\text{O}_3$), the grains observed are larger and flat.

Figure S2. Catalytic activity of $\text{Ce}_{0.95}\text{La}_{0.05}\text{O}_2$ and $\text{La}_{1.9}\text{Ce}_{0.1}\text{O}_3$ unsupported solid-solutions.

