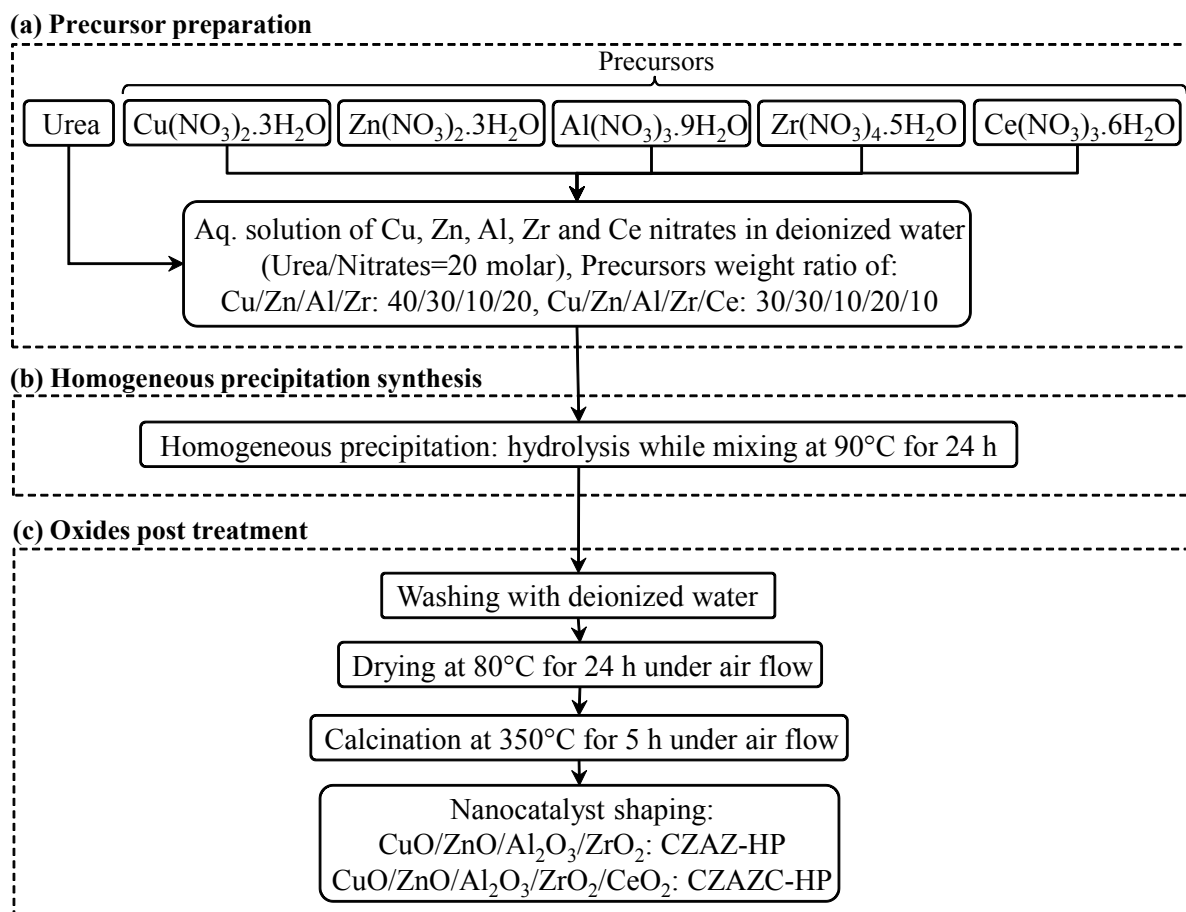


Figure 1s. Preparation steps of  $\text{CuO}/\text{ZnO}/\text{Al}_2\text{O}_3/\text{ZrO}_2$  and  $\text{CuO}/\text{ZnO}/\text{Al}_2\text{O}_3/\text{ZrO}_2/\text{CeO}_2$  nanocatalysts via urea-nitrate combustion method.



**Figure 2s. Preparation steps of CuO/ZnO/Al<sub>2</sub>O<sub>3</sub>/ZrO<sub>2</sub> and CuO/ZnO/Al<sub>2</sub>O<sub>3</sub>/ZrO<sub>2</sub>/CeO<sub>2</sub> nanocatalysts via homogeneous precipitation method.**