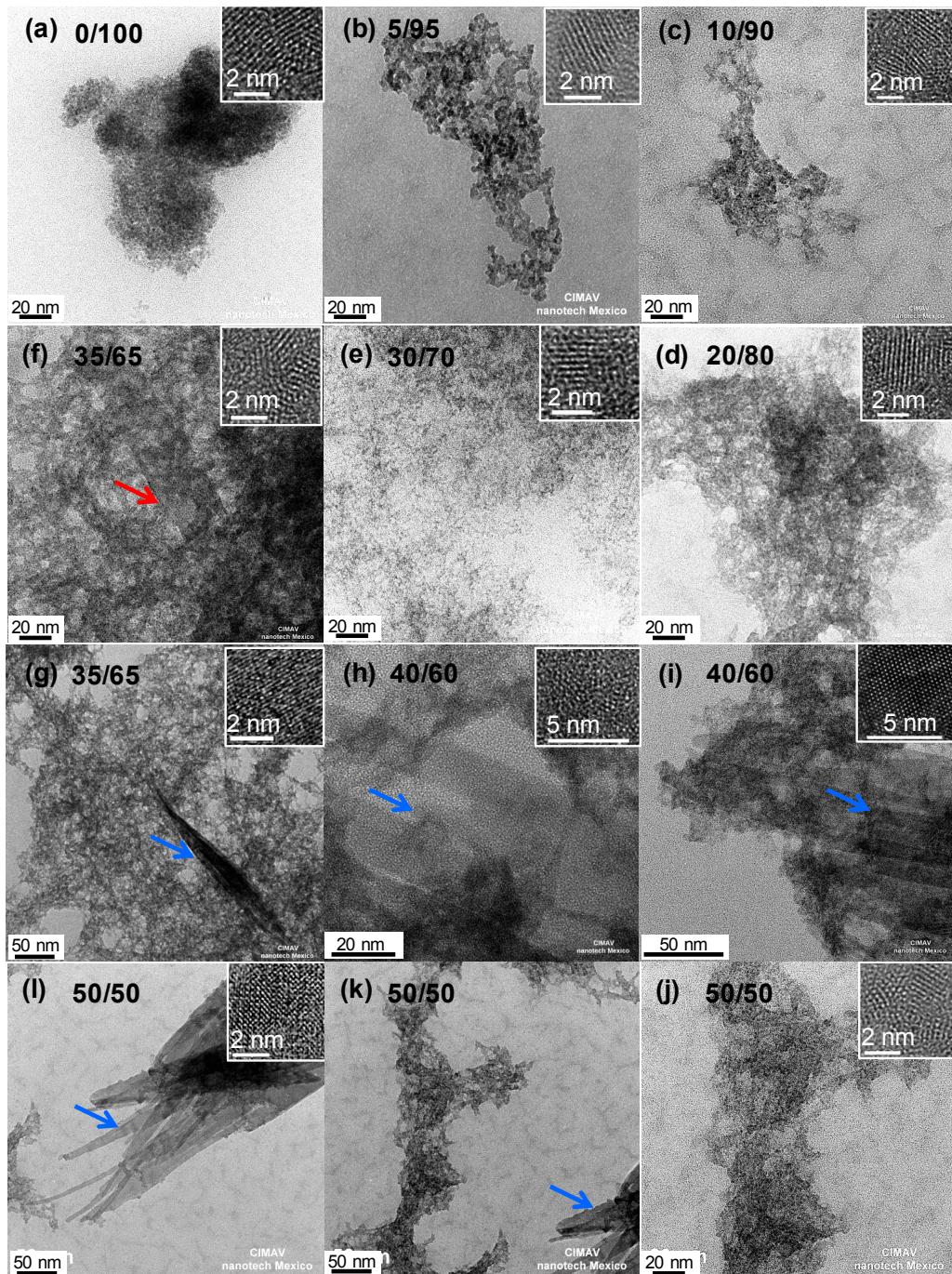


# Supplementary Materials: Synthesis of Mixed Cu/Ce Oxide Nanoparticles by the Oil-in-Water Microemulsion Reaction Method

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**Figure S1.** TEM micrographs of the synthesized nanomaterials (as obtained): (a)  $\text{CeO}_2$ ; (b)  $\text{Cu}_{0.05}\text{Ce}_{0.95}\text{O}_{2-\delta}$ ; (c)  $\text{Cu}_{0.10}\text{Ce}_{0.90}\text{O}_{2-\delta}$ ; (d)  $\text{Cu}_{0.20}\text{Ce}_{0.80}\text{O}_{2-\delta}$ ; (e)  $\text{Cu}_{0.30}\text{Ce}_{0.70}\text{O}_{2-\delta}$ ; (f,g)  $\text{Cu}_{0.35}\text{Ce}_{0.65}\text{O}_{2-\delta}$ ; (h,i)  $\text{Cu}_{0.40}\text{Ce}_{0.60}\text{O}_{2-\delta}$ ; (j,k,l)  $\text{Cu}_{0.50}\text{Ce}_{0.50}\text{O}_{2-\delta}$ . A general view of the samples (low magnification) is shown, insets show a zoom of selected particles, and arrows indicate  $\text{CuO}$  nanotapes (red arrow) or assembled nanotapes (blue arrows).

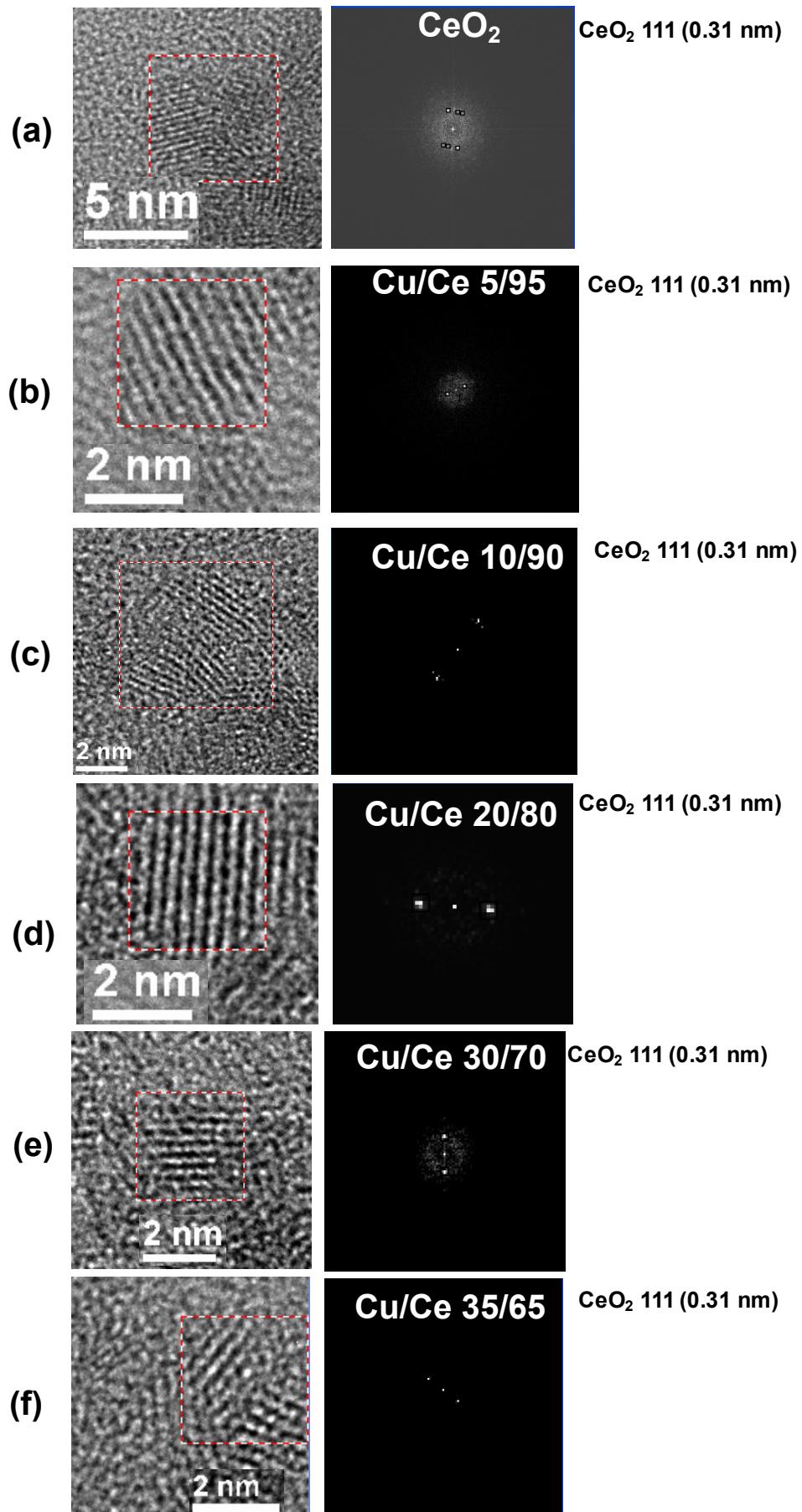
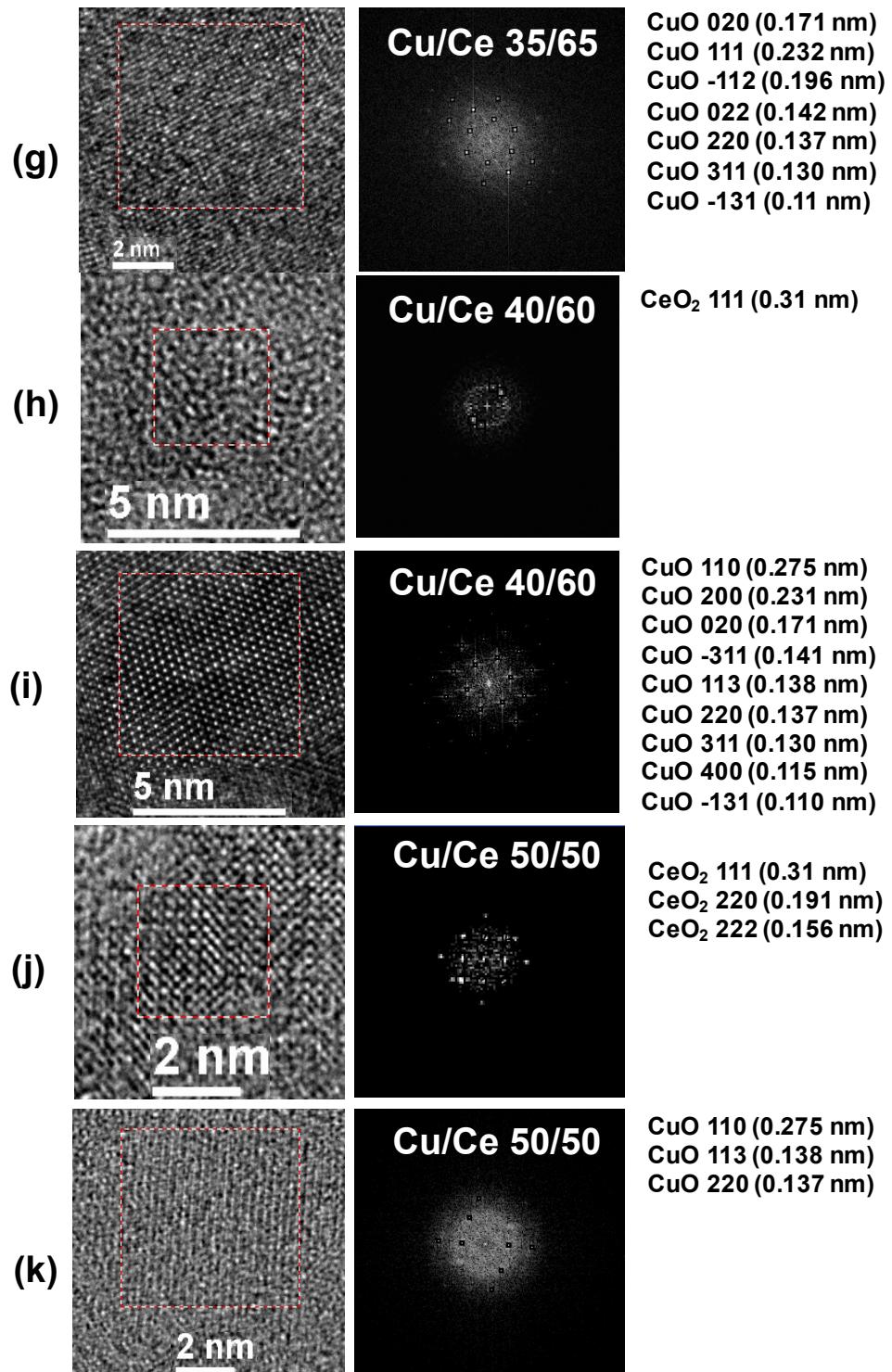


Figure S2. Cont.



**Figure S2.** High resolution TEM micrographs of the synthesized nanomaterials (as obtained), with the corresponding FFT analysis of the region inside the red square, as well as the d-spacings and corresponding hkl. (a) CeO<sub>2</sub>; (b) Cu<sub>0.05</sub>Ce<sub>0.95</sub>O<sub>2-δ</sub>; (c) Cu<sub>0.10</sub>Ce<sub>0.90</sub>O<sub>2-δ</sub>; (d) Cu<sub>0.20</sub>Ce<sub>0.80</sub>O<sub>2-δ</sub>; (e) Cu<sub>0.30</sub>Ce<sub>0.70</sub>O<sub>2-δ</sub>; (f,g) Cu<sub>0.35</sub>Ce<sub>0.65</sub>O<sub>2-δ</sub>; (h,i) Cu<sub>0.40</sub>Ce<sub>0.60</sub>O<sub>2-δ</sub>; (j,k) Cu<sub>0.50</sub>Ce<sub>0.50</sub>O<sub>2-δ</sub>.