

Electronic Supplementary Information

Hydrothermal tuning of the morphology and particle size of hydrozincite nanoparticles using different counterions to produce nanosized ZnO as an efficient adsorbent for textile dye removal

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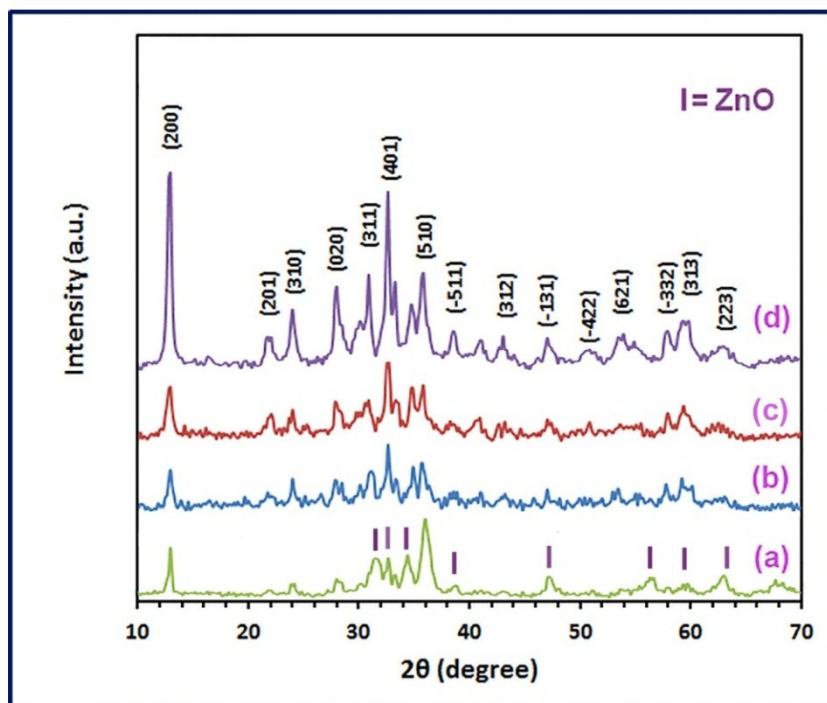


Fig. S1. XRD patterns of the as-prepared products with Zn: CO₃²⁻ molar ratios of 1:1 (a), 1:3 (b), 1:6 (c) and 1:9 (d); under hydrothermal conditions: 120 °C for 24h.

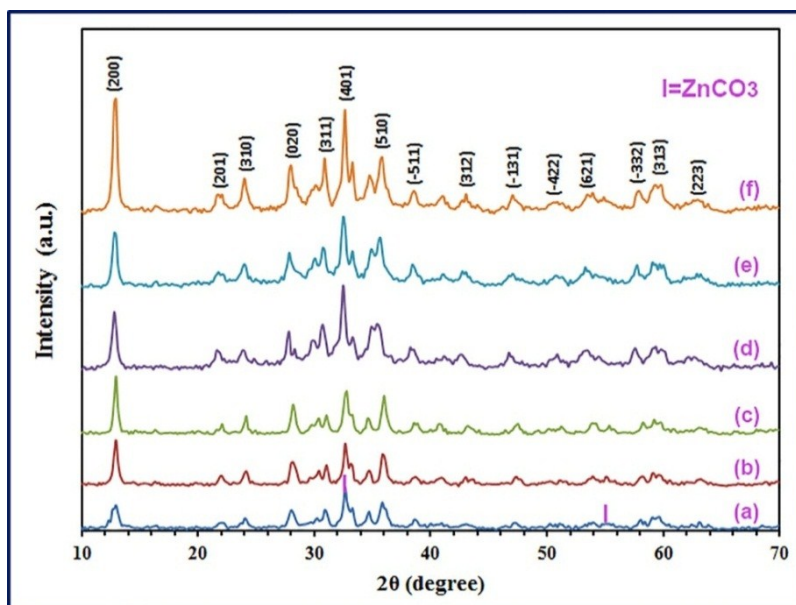


Fig. S2. XRD patterns of the as-prepared products at 120 °C under hydrothermal conditions with Zn: CO_3^{2-} molar ratio of 1:3 for 0.5 (a), 1 (b), 3 (c), 6 (d), 14 (e), and 24h (f).

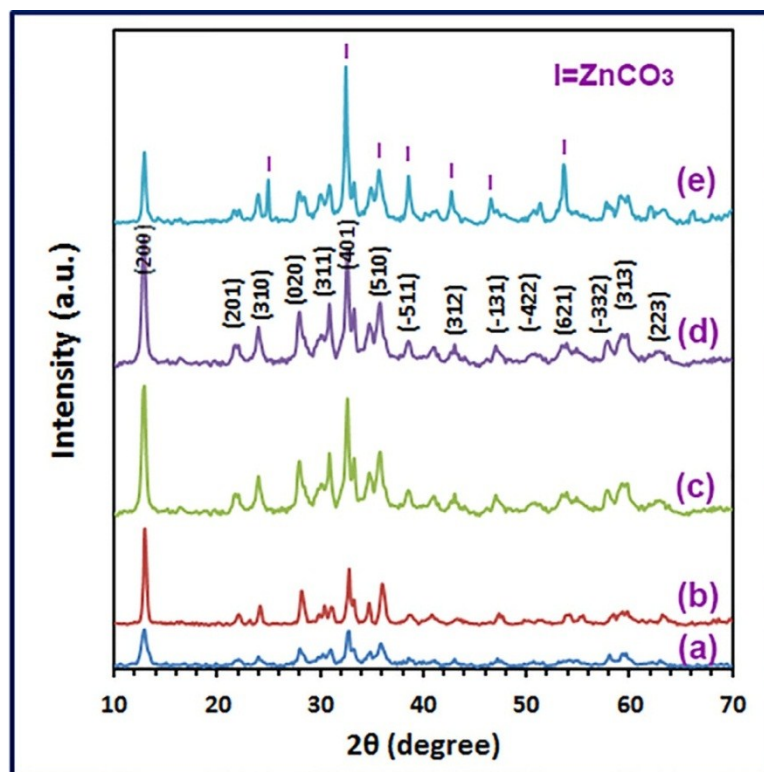


Fig. S3. XRD patterns of the as-prepared products under hydrothermal treatment for 3 h, with Zn: CO_3^{2-} molar ratio of 1:3, and at different temperatures: 80 (a), 100 (b), 120 (c), 140 (d), and 160 °C (e).

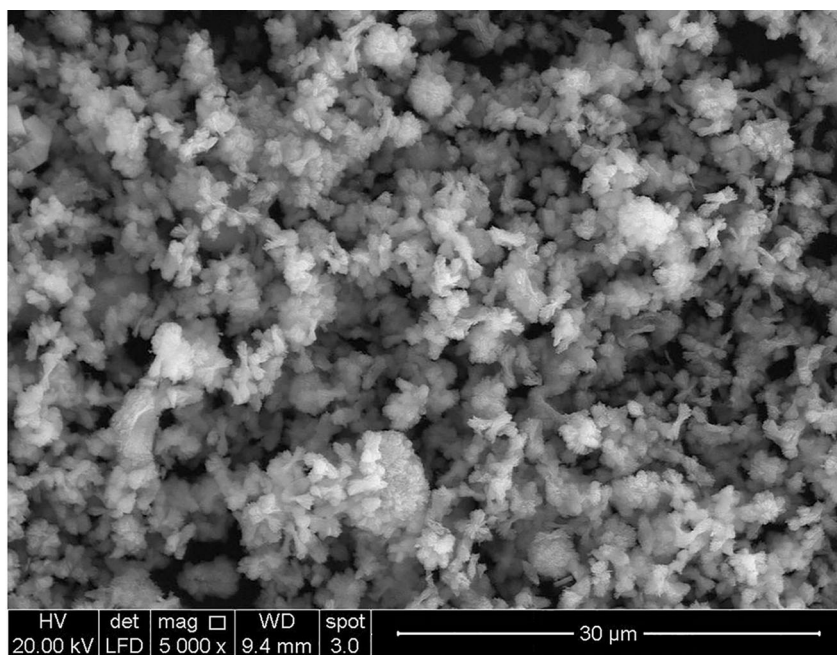


Fig. S4. Low magnification FE-SEM micrograph of the as-prepared ZnO product (ZOS).