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Performance of the $SrSnO_3/SnO_2$ Nanocomposite Catalyst on the Photocatalytic Degradation of Dyes

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Abstract : Perovskite materials with strontium alkaline earth metal have attracted researchers in photocatalysis. Thus, nanocomposite-based strontium has been synthesized by the sol-gel method, calciened at 700 °C, and characterized by different methods such as X-ray difraction (DRX), Fourier transformed infrared (FTIR), and diffuse relectance spectroscopy (DRS). After that, the photocatlytic performance of SrNO3/SnO2 has been tested under sunlight in an aqueous solution for two dyes methylene blue and congo-red. The results reveal that 70% of methylene blue has already been degraded after 45 minutes of exposure to sun light, while 80% of Congo red has been eliminated by adsorption on $SrSnO_3/SnO_2$ in 120 minutes of contact.

Keywords : congo-red, methylene blue, photocatalysis, perovskite
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