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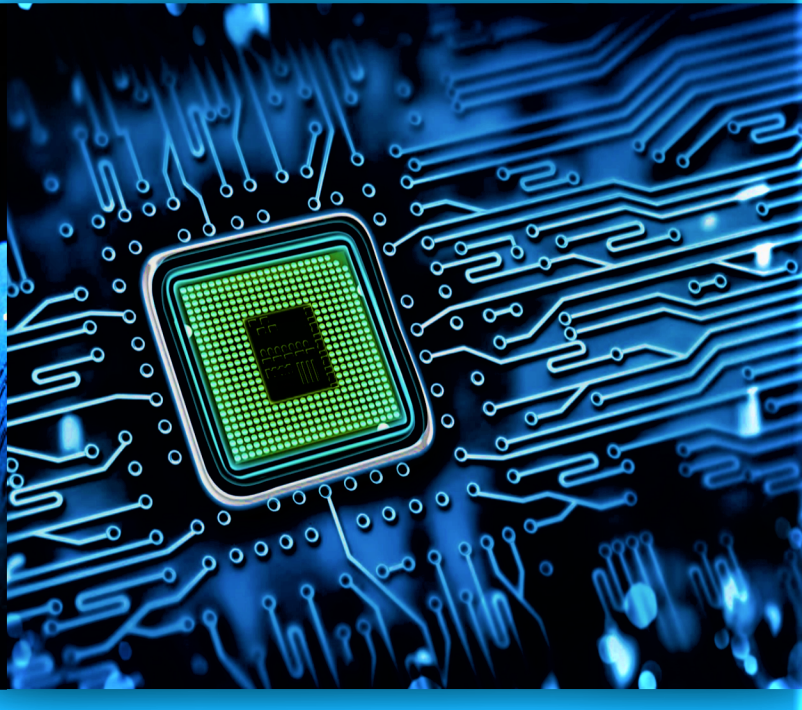

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Author(s): Noor Azie Azura Mohd Arif, Chin Suk Fun
Title of the Article: Impact on Development of ZnS Nanoparticles Thin Film Deposited by Chemical Bath Deposition and Spin Coating

Abstract: Research comparing the advantages of spin coating and chemical bath deposition is going, and there are varied views on these methods. Here, we used spin coating and chemical bath deposition to prepare thin films of ZnS nanoparticles. The film was analysed by photoluminescence (PL) spectrophotometry, field emission scanning electron microscopy (FE-SEM), ultraviolet spectroscopy (UV-Vis), and energy-dispersive X-ray (EDX) spectroscopy. The UV-Vis spectra revealed that the wavelength of ZnS is between 220 nm - 320 nm while the PL spectra showed a peak centred in the blue region. Both spin coating and chemical bath deposition rendered spherical nanoparticles but of different sizes 17.9 nm and 21.2 -25.7 nm, respectively. It was concluded that each method has its potential. This work can help researchers choose a suitable method for fabricating thin films, depending on the aims and objectives of their work.

Keywords: Nanoparticles Thin Film, Chemical Bath Deposition, Spin Coating.

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