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Synthesis, Characterization, and Antibacterial Study of Cadmium (II) Thiosemicarbazone Complexes

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Abstract: *The reaction of CdI_2 with thiosemicarbazone-based ligands such as $(benztsczH)_2$ and $(benzoptsczH)_2$ resulted inCdI_2 $(benztsczH)_2$ and $CdI2(benzoptsczH)_2$ complexes where benztsczH and benzoptsczH are benzaldehyde and benzophenone thiosemicarbazone respectively. The above complexes have been prepared and characterized by elemental analysis, infrared and nuclear magnetic resonance (^1H and $^{13}C\{^1H\}$) spectroscopic techniques. These complexes have been studied for antibacterial activities using Escherichia coli (gram-negative) and Staphylococcusaureus(gram-positive).The minimum inhibitory concentration response of both the complexes was found to be 400ppm against the strains.*

Keywords: Cd(II) Complexes; Cadmium Iodide, Thiosemicarbazone, Antibacterial Study

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