

## عنوان مقاله:

Designing and Synthesis of Some Transition Metal Complexes Derived from Schiff Bases for Anti-Bacterial Activity

## محل انتشار:

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## خلاصه مقاله:

Condensation of salicylaldehyde with D-alanine and L-serine was carried out to obtain Schiff bases and treated with various metal chlorides to form metal complex derivatives. The metals chlorides used for the preparation of metal complexes derivatives were copper, cobalt, iron, manganese, and zinc, respectively and characterized by elemental analysis, FT-IR,  $^1\text{H}$  NMR,  $^{13}\text{C}$  NMR, and LC-MS. Hence, a total of ten metal complexes derivatives was synthesized and screened for some tested bacterium organisms like *Staphylococcus aureus*, *Bacillus subtilis*, *Pseudomonas aeruginosa* and *Salmonella typhi*. The synthesized metal complexes derivatives showed significant activity compared with Schiff base and ciprofloxacin used as standard. The synthesized metal complexes derivatives showed a good effect on the selected antibacterial strains, indicating that the activity was depending on the structure of the compound. Amongst the selected five metals, cobalt showed the good antibacterial activity followed by other metals in .dimethyl sulfoxide as a solvent. The Schiff bases synthesized also showed significant antibacterial activity

## کلمات کلیدی:

Metal complexes derivatives, anti- bacterial, Drug resistance, Inhibition, polar solvents

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