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Title:	Antibacterial and catecholase activities of Co(III) and Ni(II) Schiff base complexes
Authors:	Yadav, Hareram (/jspui/browse?type=author&value=Yadav%2C+Hareram) Choudhury, A.R. (/jspui/browse?type=author&value=Choudhury%2C+A.R.)
Keywords:	Cobalt Nickel Schiff base Antibacterial activity Catecholase activity
Issue Date:	2016
Publisher:	Elsevier Ltd
Citation:	Polyhedron, 107, pp. 1-18
Abstract:	X-ray structural analyses of two newly synthesized Schiff base-complexes, [Co(L)3] (1) and [Ni(L)2] (2) [HL = 2-((E)-(2-pyridine-2-pyridin-2-ylthio)ethylimino)methyl)phenol], reveal the bidentate chelation behavior of the ligand HL with octahedral and square planar geometries at the metal centers in 1 and 2, respectively. Both the compounds show antibacterial activity as well as catecholase activity. The antibacterial activities of the compounds were investigated on gram positive and gram negative bacteria; compound 2 was found to be better in terms of antibacterial activity than 1 against both the bacteria. Moreover, both compounds catalyse the oxidation of 3,5-ditertiarybutylcatechol in methanol in the presence of molecular oxygen with first order reaction kinetics and turn over numbers $3.48 \times 10^3 \text{ h}^{-1}$ (1) and $2.68 \times 10^3 \text{ h}^{-1}$ (2).
Description:	Only IISERM authors are available in the record.
URI:	https://www.sciencedirect.com/science/article/pii/S027753871600019X (https://www.sciencedirect.com/science/article/pii/S027753871600019X) http://hdl.handle.net/123456789/2454 (http://hdl.handle.net/123456789/2454)
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