Tomilola Ajayi, Organic Chem Curr Res 2015, 4:2
http://dx.doi.org/10.4172/2161-0401.C1.008

OMICS International
conferenceseries.com
2nd International Conference on
Past and Present Research Systems of Green Chemistry
September 14-16, 2015 Orlando, USA

Green route to synthesis of (4-methoxy-phenyl)- phosphonodithioic acid and its Ni & Co complexes

Tomilola Ajayi
University of Kwazulu-natal, South Africa

This review presents an overview of the reaction of 2, 4-bis (4-methoxyphenyl)-1,3,2,4-dithiadiphosphetane-2,4-disulfide (Lawesson's reagent) with ROH [R = Me, Et, iPr& But] to produce the non-symmetric (4-methoxy-phenyl)-phosphonodithioicacid acid which was complex to Ni(II) & Co(II) by green synthesis approaches that have advantages over conventional methods involving heat and chemical solvent associated with environmental toxicity. Most of the synthetic methods reported to date rely heavily on organic solvents. In the present approach, the compounds were synthesized solvent less and were characterized by 1H, 31P NMR, and Mass Spectroscopy. The nickel complexes are square planar and the cobalt complex octahedral. All the data correspond to what has previously reported. This new route saves time, cost, energy and it is environmental friendly synthesized. These compounds have been reported to have antibacterial properties.

Biography

Tomilola Ajayi is a doctoral student in School of Chemistry and Physics, University of KwaZulu-Natal. He got his first degree from University of Ilorin, Nigeria and his master's degree from University of Lagos, Nigeria where he carried out research on inorganic (speciation) pollutant in one of the rivers in Lagos. He is currently working on green route to synthesis of Thiophosphorus ligands and complexes. He is currently working under the supervision of Professor Werner E Van Zyl.

213523472@stu.ukzn.ac.za

Notes: