

(54) Title of the invention : NICKEL(II)-N-HETEROCYCLIC CARBINE (NHC) COMPLEX FOR MALATHION DETECTION AND METHOD FOR SYNTHESIS THEREOF

<p>(51) International classification :C07D0403060000, A01N0057120000, B82Y0040000000, B01D0009000000, B82Y0030000000</p> <p>(86) International Application No :PCT// Filing Date :01/01/1900</p> <p>(87) International Publication No : NA</p> <p>(61) Patent of Addition to Application Number :NA Filing Date :NA</p> <p>(62) Divisional to Application Number :NA Filing Date :NA</p>	<p>(71)Name of Applicant : 1)Jain (Deemed-to-be University) Address of Applicant :Jain Global Campus, Jakkasandra Post, Kanakapura Road, Kanakapura Taluk, Ramnagar District, Karnataka Bangalore – 562112, India. Bangalore ----- ---</p> <p>Name of Applicant : NA Address of Applicant : NA</p> <p>(72)Name of Inventor : 1)Dr. Srinivasa Budagumpi Address of Applicant :Associate Professor, Centre for Nano & Material Sciences, Jain (Deemed-to-be University), Jain Global Campus, Jakkasandra Post, Kanakapura Road, Kanakapura Taluk, Ramnagar District, Karnataka Bangalore – 562112, India. Bangalore ----- Bangalore -----</p> <p>2)Rashmi Dilip Kadu Address of Applicant :Centre for Nano & Material Sciences, Jain (Deemed-to-be University), Jain Global Campus, Jakkasandra Post, Kanakapura Road, Kanakapura Taluk, Ramnagar District, Karnataka Bangalore – 562112, India. Bangalore ----- ---</p> <p>3)Nupoor Neole Address of Applicant :Centre for Nano & Material Sciences, Jain (Deemed-to-be University), Jain Global Campus, Jakkasandra Post, Kanakapura Road, Kanakapura Taluk, Ramnagar District, Karnataka Bangalore – 562112, India. Bangalore ----- ---</p> <p>4)Zhoveta Yhobu Address of Applicant :Centre for Nano & Material Sciences, Jain (Deemed-to-be University), Jain Global Campus, Jakkasandra Post, Kanakapura Road, Kanakapura Taluk, Ramnagar District, Karnataka Bangalore – 562112, India. Bangalore ----- ---</p> <p>5)Jan Grzegorz Malecki Address of Applicant :Professor, Institute of Chemistry, University of Silesia, Katowice, Poland. -----</p>
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(57) Abstract :

A nickel(II)-N-heterocyclic carbene (NHC) complex for malathion detection comprises of following structure. A method for synthesis of Ni(II)-NHC complex comprises of following steps: i) adding 1-benzyl-1H-benzimidazole and 4-bromomethyl-5,6-benzocoumarin in 1,4-dioxane in a 100mL round bottom flask, followed by stirring at reflux condition for condition for 40-50 hours to obtain an off white colored precipitate, and ii) adding nickelocene to the precipitate in a shlenck round bottom flask with THF as a solvent, followed by stirring under nitrogen atmosphere for 4-8 hours at reflux conditions to obtain Ni(II)-NHC complex.

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