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<u>Abstract:</u> In the present work, we describe the isolation of some lanthanide(III) chlorides coordination compounds with 4[(furan-2-ylmethylene)amino]-1,5-dimethyl-2-phenyl pyrazol-3-one (FDPPO) and isonicotinic acid(3',4',5'-trimethoxybenzylidene)hydrazide (ITMBH) with the general composition [Ln(L)  $_2$ Cl<sub>3</sub>] (Ln = La, Pr, Nd, Sm, Gd, Tb, Dy or Ho; L = FDPPO or ITMBH). All the isolated compounds were

characterized through various physico-chemical studies. The coordinating ligands FDPPO or ITMBH act as neutral bidentate N and O-donors in the present compounds. The central metal ion displays the coordination number 7 in these complexes. Thermal stabilities of these complexes were also studied through thermogravimetric analysis.

Key Words: Lanthanide(III) complexes, 4[(Furan-2-ylmethylene)amino]-1,5- dimethyl-2-phenyl pyrazol-3one, Isonicotinic acid(3',4',5'- trimethoxybenzylidene)hydrazide, Coordination number 7

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