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Synthesis, spectral characterization, molecular modeling, antibacterial and antioxidant activities and stability study of binuclear Pd(II) and Ru(III) complexes with novel bis-[1-(2-[(2-hydroxynaphthalen-1-yl)methylidene]amino}ethyl)-1-ethyl-3-phenylthiourea] ligand: Application to detection of cholesterol

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Abstract

A novel bis-[1-(2-[(2-hydroxynaphthalen-1-yl) methylidene]amino}ethyl)-1-ethyl-3-phenylthiourea] Schiff base (L) and its binuclear palladium and ruthenium complexes have been prepared and characterized by ESI-MS, elemental analysis, NMR (^{1}H-NMR, ^{13}C-NMR, COSY, NEOSY and HSQC), FT-IR, ATR, UV-Visible spectra, TGA measurements, conductivity and cyclic voltammetry. The experimental results and the molecular parameters