

Supplementary Materials

A new ternary ruthenium (III) complex with 1,3-bis (salicylideneamino) propan-2-ol and 3-picolylamine: Synthesis, characterization, density functional theory and preparation of electrochemical sensor for nitrite analysis.

A. Terbouche^{a,b,*}, C. Ait-Ramdane-Terbouche^{a,b}, S. Djebbar^b, D. Guerniche^c, R. Bagtache^c, N.E.H. Bensiradj^d, A. Saal^d, D. Hauchard^{e, f}

^aCentre de Recherche Scientifique et Technique en Analyses Physico-chimiques (CRAPC), Algiers, 16004, Algeria

^bLaboratoire d'Hydrométallurgie et Chimie Inorganique Moléculaire, Faculté de Chimie, USTHB University, 16111, Algiers, Algeria

^cLaboratoire d'Electrochimie-Corrosion, Métallurgie et Chimie Minérale, Faculté de Chimie, USTHB University, 16111, Algiers, Algeria

^dLaboratoire de Physico-Chimie Théorique et Chimie Informatique, Faculté de chimie, USTHB University, 16111, Algiers, Algeria

^eSciences Chimiques de Rennes, UMR CNRS 6226, Ecole Nationale Supérieure de Chimie de Rennes, avenue du général Leclerc, CS 50837, 35708 Rennes Cedex 7, France

^fUniversité Européenne de Bretagne, 12 avenue Janvier, 35000 Rennes, France

**Corresponding authors:*

Tel.: 00213.778.815.933, fax: 00213.21.24.74.06. E-mail address: achour_t@yahoo.fr (Achour TERBOUCHE)

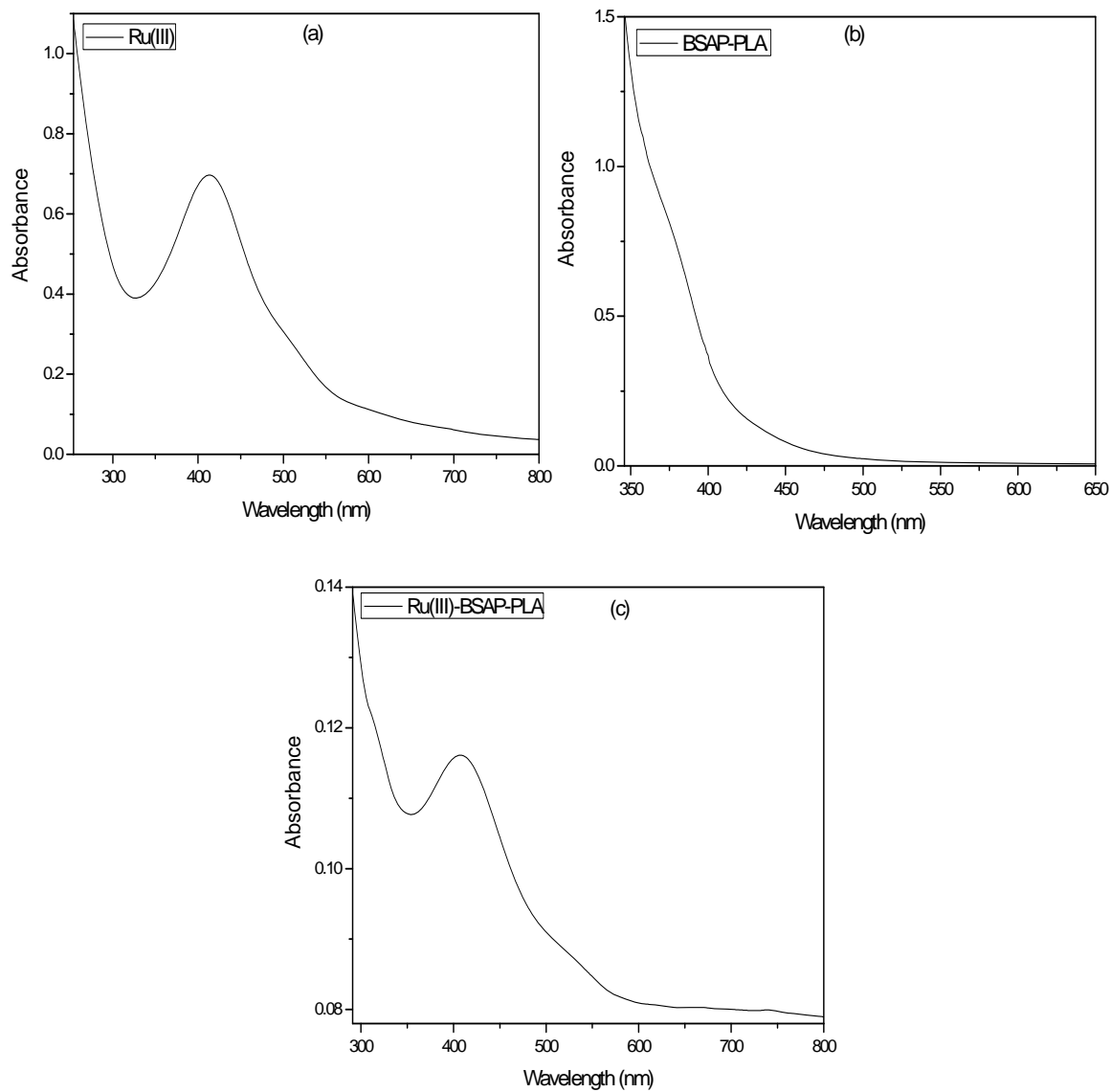


Fig. S1. UV-Vis absorption spectra of Ru(III)-BSAP-PLA, Ru(III) and BSAP-PLA compounds in DMSO.

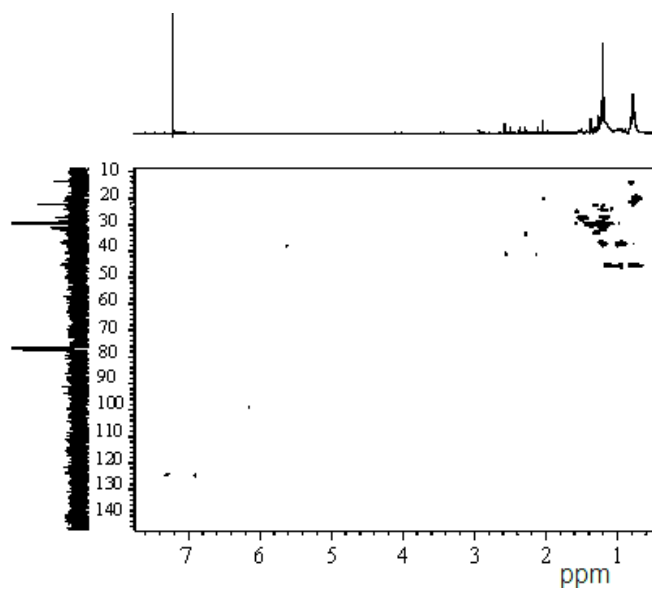


Fig. S2. Expanded 2D-NMR spectra (gHSQC) of Ru(III)-BSAP-PLA complex.

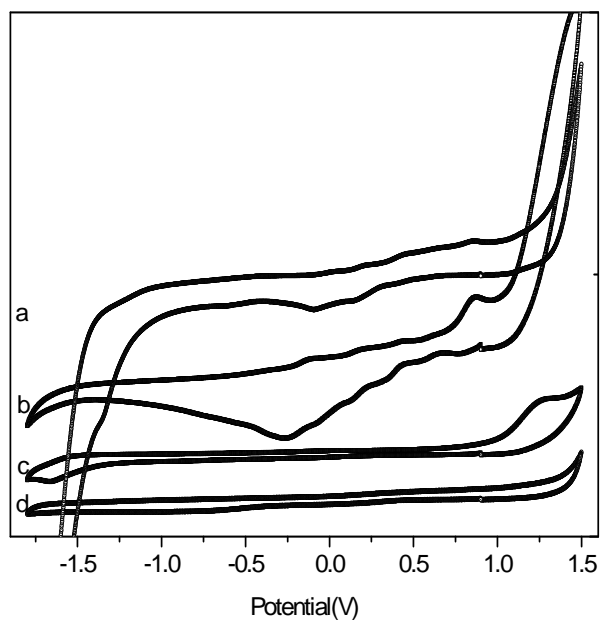


Fig. S3. Cyclic voltammograms obtained using Ag/AgCl reference electrode, GC working electrode and Pt auxiliary electrode in DMSO and 0.1 M NBu_4PF_6 : (a) Ru(III)-BSAP-PLA, (b) RuCl_3 , (c) BSAP-PLA and (d) residual. Scan rate: 100 mV/s

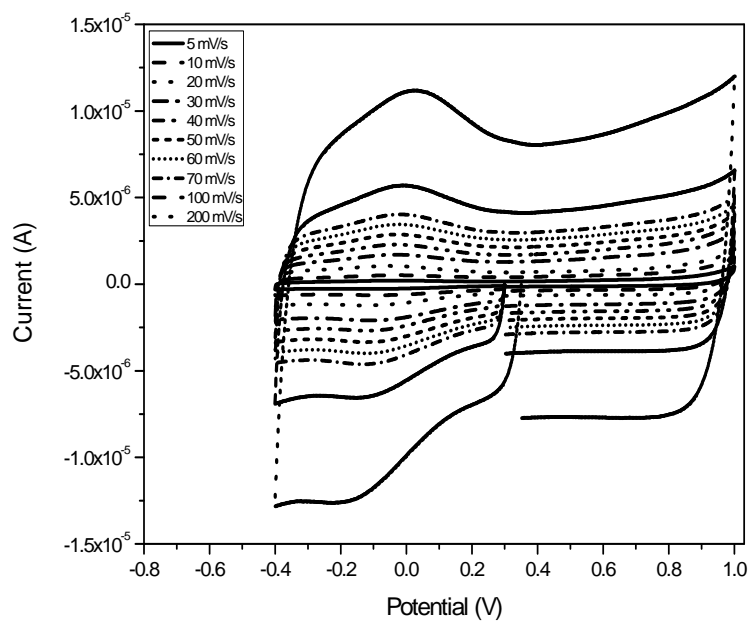


Fig. S4. Cyclic voltammograms obtained using CME/G/Ru(III)-BSAP-PLA as working electrode in 0.1 M $\text{NaH}_2\text{PO}_4/\text{Na}_2\text{HPO}_4$ (pH=7) in the absence of nitrite at different scan rates.

Temperature= 25°C.