Dinuclear Rh(II) complexes with one polypyridyl ligand, structure, properties and antitumor activity.

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Rhodium(II) complexes $[Rh_2(\mu\text{-}OAc)_2(OAc)(bpy)(H_2O)_2]PF_6$ (**1**), $[Rh_2(\mu\text{-}OAc)_2(OAc)(phen)(H_2O)_2](PF_6)\cdot H_2O$ (**2**), $[Rh_2(\mu\text{-}OOCCH_3)_3(OOCCH_3)(phen)]$ (**3**) and $[Rh_2(\mu\text{-}O_2CCH_3)_3(O_2CCH_3)(Ph_2phen)]$ (**4**) (Ph_2phen = 4,7-diphenyl-1,10-phenanthroline) have been synthesized and characterized by means of NMR, IR and UV–Vis spectroscopic methods. X-ray structure of complex **4**·1.5(CH_3COCH_3) has been determined and its geometry and electronic structure has been elucidated using OPBE and B3LYP DFT methods. The compounds are active cytostatic agents against tumor cells.

Słowa kluczowe

Rhodium(II), Dinuclear rhodium complexes, Polypyridyls, Antitumor activity, DFT calculation, UV–Vis spectra

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