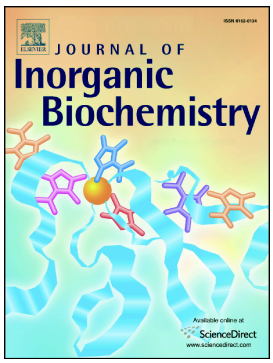

A study of the properties, reactivity and antitumor activity of novel N-methylated-3-thiazolyl or 3-thienyl carbazoles and their Pd(II) and Pt(II) complexes

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A study of the properties, reactivity and antitumor activity of novel N-methylated-3-thiazolyl or 3-thienyl carbazoles and their Pd(II) and Pt(II) complexes

M. Reig,[a] R. Bosque,[b] M. Font-Bardía,[c] C. Calvis,[d] R. Messeguer,[d] L. Baldomà,[e] J. Badía,[e] D. Velasco[a] and C. López*[b]

[a] *Grup de Materials Orgànics, Institut de Nanociència i Nanotecnologia (IN^{2}UB), Secció de Química Orgànica, Departament de Química Inorgànica i Orgànica, Facultat de Química, Martí i Franquès 1-11, E-08028 Barcelona, Spain*

[b] *Secció de Química Inorgànica, Departament de Química Inorgànica i Orgànica, Facultat de Química, Martí i Franquès 1-11, E-08028 Barcelona, Spain*

[c] *Unitat de Difracció de Raigs-X, Centres Científics i Tecnològics (CCiT), Universitat de Barcelona, Solé i Sabaris 1–3, E-08028 Barcelona, Spain*

[d] *Biomed Division LEITAT Technological Center, Parc Científic de Barcelona, Edifici Hèlix, Baldiri i Reixach 13-21, E-08028 Barcelona, Spain*

[e] *Departament de Bioquímica i Biologia Molecular, Facultat de Farmàcia, Av. Joan XXIII s/n, E-08028 Barcelona, Spain*

Keywords

Carbazole – Pd(II)-based complexes – Pt(II)-based complexes – Cancer / Antitumor activity

Abstract

The synthesis and characterization of two hybrid *N*-methylated carbazole derivatives containing a thiazolyl or a thienyl ring on position 3 is reported. The thiazolyl derivative has been also characterised by X-Ray diffraction. The study of its reactivity in front of $[MCl_2(dmso)_2]$ (M = Pd or Pt) or $Na_2[PdCl_4]$ in methanol has allowed us to isolate and characterize its complexes. However, when the reactions were performed using the thienyl analogue, no evidences of the formation of any Pd(II) or Pt(II) complex were detected. Thus indicating that the latter is less prone to bind to the M(II) ions than its thiazolyl analogue. DFT and TD-DFT calculations have also been carried out in order to: a) rationalize the influence of the nature of the thiazolyl or