



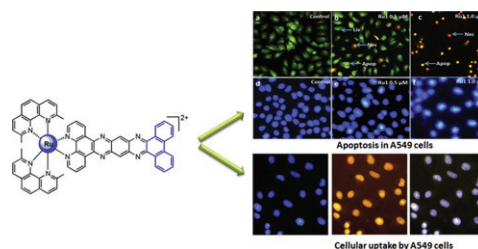
Contents

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Jun-Hua Yao, Wei Li, Bing-Jie Han,
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Yun-Jun Liu**

Journal of Inorganic Biochemistry 152 (2015)
1–9

Cytotoxic activity, DNA damage, cellular uptake, apoptosis and western blot analysis of ruthenium(II) polypyridyl complex against human lung decarcinoma A549 cell

A new Ru(II) complex $[\text{Ru}(\text{dmp})_2(\text{pddppn})](\text{ClO}_4)_2$ **Ru1** was synthesized and characterized. The cytotoxicity, apoptosis, cellular uptake, comet assay, cell cycle arrest, ROS, mitochondrial membrane potential, western blot analysis were investigated.

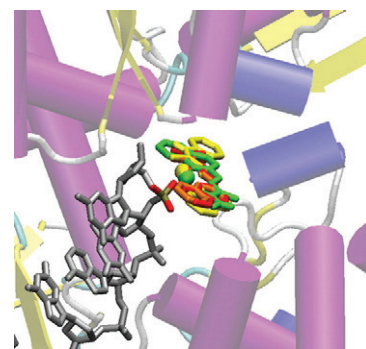


**Franco Bisceglie, Anastasia Musiari,
Silvana Pinelli, Rossella Alinovi,
Ilaria Menozzi, Eugenia Polverini,
Pieralberto Tarasconi, Matteo Tavone,
Giorgio Pelosi**

Journal of Inorganic Biochemistry 152 (2015)
10–19

Quinoline-2-carboxaldehyde thiosemicarbazones and their Cu(II) and Ni(II) complexes as topoisomerase IIa inhibitors

Quinoline-2-carboxaldehyde thiosemicarbazone derivatives and their copper(II) and nickel(II) complexes were tested for their antiproliferative properties on cell line U937. Copper(II) derivatives inhibit proliferation and topoisomerase IIa in vitro. Computational methods suggest that the positive charge formed by dissociation of the copper complexes may play a key role in their activity.

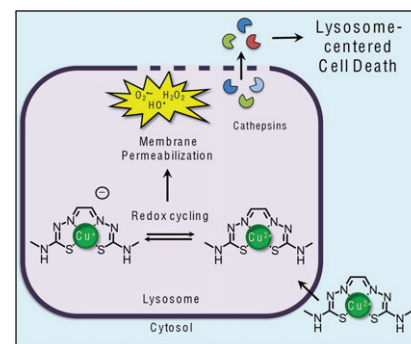


**Christian Stefani, Zaynab Al-Eisawi,
Patric J. Jansson, Danuta S. Kalinowski,
Des R. Richardson**

Journal of Inorganic Biochemistry 152 (2015)
20–37

Identification of differential anti-neoplastic activity of copper bis(thiosemicarbazones) that is mediated by intracellular reactive oxygen species generation and lysosomal membrane permeabilization

Bis(thiosemicarbazones) and their copper complexes possess unique anti-neoplastic properties. However, their mechanism of action remains unclear. We examined twelve bis(thiosemicarbazones) to elucidate mechanisms behind their anti-cancer efficacy. For the first time, this investigation highlights the role of reactive oxygen species and lysosomal membrane permeabilization in the anti-cancer activity of bis(thiosemicarbazones).

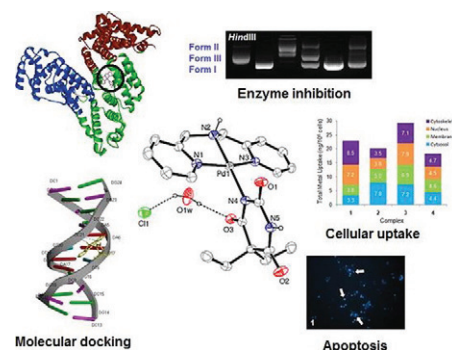


Ceyda Icel, Veysel T. Yilmaz, Yunus Kaya, Selvi Durmus, Mehmet Sarimahmut, Orhan Buyukgungor, Engin Ulukaya

Journal of Inorganic Biochemistry 152 (2015) 38–52

Cationic Pd(II)/Pt(II) 5,5-diethylbarbiturate complexes with bis(2-pyridylmethyl)amine and terpyridine display high binding affinity towards DNA/BSA as explored by various physical and biochemical methods. In addition, the Pd(II) complexes show selectivity against HT-29 (colon) and MCF-7 (breast) cell lines.

New Pd(II)/Pt(II) 5,5-diethylbarbiturate complexes with bis(2-pyridylmethyl)amine and terpyridine display high binding affinity towards DNA/BSA as explored by various physical and biochemical methods. In addition, the Pd(II) complexes show selectivity against HT-29 (colon) and MCF-7 (breast) cell lines.

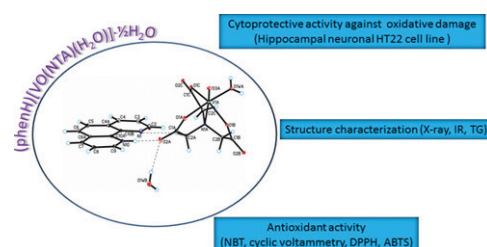


A. Tesmar, I. Inkielewicz-Stępnia, A. Sikorski, D. Wyrzykowski, D. Jacewicz, P. Zięba, J. Pranczk, T. Ossowski, L. Chmurzyński

Journal of Inorganic Biochemistry 152 (2015) 53–61

Structure, physicochemical and biological properties of new complex salt of aqua(nitrilotriacetato-N,O,O',O'')-oxidovanadium(IV) anion with 1,10-phenanthroline cation

A new nitrilotriacetato-oxidovanadium(IV) complex – structure and antioxidant activity.

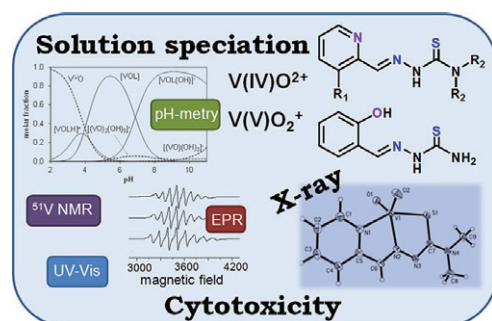


Christian R. Kowol, Nóra V. Nagy, Tamás Jakusch, Alexander Roller, Petra Heffeter, Bernhard K. Keppler, Éva A. Enyed

Journal of Inorganic Biochemistry 152 (2015) 62–73

Vanadium(IV/V) complexes of Triapine and related thiosemicarbazones: Synthesis, solution equilibrium and bioactivity

Solution stability of vanadium(IV/V) complexes of Triapine and its terminally dimethylated derivatives were determined. The most stable complexes were synthesized in solid phase and tested against cancer cell lines. Complexes of salicylaldehyde thiosemicarbazone were also studied in comparison and displayed higher stability.

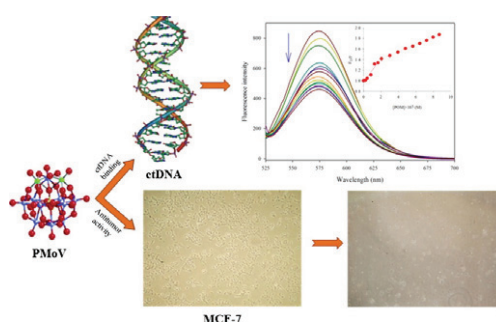


Somayeh Dianat, Abdol-Khalegh Bordbar, Shahram Tangestaninejad, Bahram Yadollahi, Razieh Amiri, Sayyed-Hamid Zarkesh-Esfahani, Parvin Habibi

Journal of Inorganic Biochemistry 152 (2015) 74–81

In vitro antitumor activity of free and nano-encapsulated Na₅[PMo₁₀V₂O₄₀]·nH₂O and its binding properties with ctDNA by using combined spectroscopic methods

The free and nano-encapsulated forms of PMoV in starch and lipid nanocarriers showed a remarkable inhibitory effect on two types of cancer cells. The interaction mechanism of PMoV to ctDNA ruled out the presence of any direct coordinate covalent bond formation and proposed the groove or outside stacking binding mode.



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