

## FILM-SHAPED INORGANIC-ORGANIC HYBRID POLYMERS WITH BIOLOGICAL PROPERTIES

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One of our reach interest is related with the synthesis of water soluble thionate complexes of platinum(II) and palladium(II) with antitumoral properties, using PTA (1,3,5-triaza-7-phosphaadamantane) and DAPTA (3,7-diacetyl-1,3,7-triaza-5-phosphabicyclo- [3.3.1] nonane) as neutral ligands<sup>1,2</sup>. Also, we are interested in the properties of advanced film-shaped organic polymer biomaterials. Given the growing interest in the application of biomaterials bearing biologically active principles, both interests have been merged in the design and preparation of inorganic-organic hybrid film-shaped materials containing both chemically anchored and dispersed metal complexes with antitumor properties against a variety of human cancer cell lines. Both complexes and films interact with the Bovine Serum Albumin (BSA) protein<sup>3</sup>.



**Figure 1.** Inorganic-organic hybrid polymer materials *self-carriers* of cytotoxic metal complexes

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<sup>1</sup> A. Mendía et al., *Inorg. Chem.* **2013**, 52, 6635-6647 and references herein.

<sup>2</sup> A. Mendía et al., Patent, **2010**, ES2321785.

<sup>3</sup> J.M. García et al., *Sensors*, **2012**, 12, 2969 and references herein.