

# Platinum binuclear compounds with potential application for lung carcinoma and human larynx

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Currently many platinum complexes have been studied aiming of obtain new antitumor agents with high activity e lower side effects. Today, the platinum complexes are known worldwide and used in the cancer therapy.<sup>1</sup> In order to obtaining new candidates to drugs, that can exceed the expectations of CDDP and derivatives, the use of multinuclear complexes have been a good alternative. The multinuclear systems show one advantage when compared to mononuclear system, because triggers the cellular apoptosis with more efficiency, since the interaction of these systems with nDNA occurs through of the interstrand mechanism.<sup>2</sup> In this work is presented the synthesis, characterization and antitumor activity (in vitro) of two new platinum complexes. The complexes were characterized by elemental analysis, infrared spectroscopy, nuclear magnetic resonance (<sup>1</sup>H and <sup>195</sup>Pt). The results obtained were described in the patent n°. BR1020160006880. The complexes were coded of CMW-S and CMW-N, both being binuclear systems. The results obtained, of the in vitro assays, for binuclear complexes, CMW-S and CMW-N, were 73.2 and 47.8%, for human mucoepidermoid lung; and 51.3 and 49.8%, for the human larynx; respectively.

Figure 1. Structure widespread Molecular for binuclear systems synthesized in this work.

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CENAPESQ/UFRPE; FACEPE, CNPq and CAPES.