

Precious Metals for Cancer Therapy

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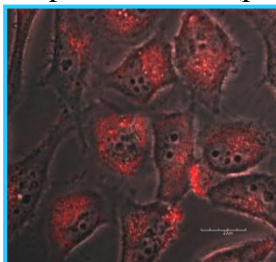
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Topic: Old Elements, New Technologies: how to improve the quality of life

Abstract:

In spite of the huge advancement achieved in drug research and technology development for cancer treatment during the past decades, cancer is currently the second leading cause of death in both developed and developing countries, imposing a huge socio-economic burden on humankind. The FDA-approved platinum-containing drugs, cisplatin, carboplatin, and oxaliplatin are used in the treatment of nearly 50% of cancer patients undergoing chemotherapy.¹ However, their drawbacks, such as toxicity, tumor recurrence, and deactivation, remain problematic and originate from a lack of tumor selectivity and poor stability.² Therefore new strategies and formulations are being explored in the design of anticancer metal complexes that exhibit nonclassical modes of action. Thus, for example, a minimally invasive medical technique to combat cancer, light-mediated anticancer therapy, has received increasing attention.³ Herein, we will present our recent results on the preparation and biological evaluation of some novel series of precious metal complexes for the (photo)therapy and diagnosis of cancer.



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