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Synthesis and cytotoxic activity of novel transition metal porphyrinates based on chlorophyll *a* derivatives

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Abstract

The number of new transition metal porphyrinates based on chlorophyll *a* derivatives were synthesized and their photo independent cytotoxic activity against HeLa cells were studied. The influence of the central atom nature and the ligand structure on the dark toxicity of the porphyrinates based on chlorophyll *a* derivatives was found. It has been shown that zinc cation introduction results in a sharp increase in the toxicity of the compounds, while the introduction of nickel and copper cations reduces toxicity most cases. A potential antitumor dark cytotoxicant were found among the investigated compounds.