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Copper-Containing Polyoxometalates: Syntheses and Anticancer Activity against the SH-SY5Y Human Neuroblastoma Cell Line

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A new method for synthesising new copper-containing polyoxometalates based on selenium and tungsten has been developed. The structure of one of the complexes has been decoded; the cytotoxic effect of the complex on the human neuroblastoma SH-SY5Y has been studied. The cell lines have been cultured at different concentrations of polyoxometalates in a DME medium for 24 h; the percentage of cell viability has been evaluated by 3-(4,5 dimethyl thiazol-2yl)-2,5 diphenyltetrazolium bromide and neutral red. Polyoxometalates have shown the dose dependent inhibition of cell proliferation. These results suggest that the polyoxometalates exhibit strong anticancer and apoptosis activity against human neuroblastoma SH-SY5Y cell line.