Intelligent materials for medical and ecological interest

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Abstract. This work presents the results of the research performed by an interdisciplinary team, having as aim the synthesis of some new intelligent materials – semiconductors, organic products with magnetic properties, colorants used for the photodynamic therapy of cancer – and the ways of using these in the construction of sensors for O₂, NO, NO₂, SO₂, SO₃, etc and medical practice. The studied structures are of tetraazaisoindole and poly-indolone type.

Keywords: organic semiconductors, metallic phthalocyanines, indigoid compounds, photodynamic therapy, sensors.