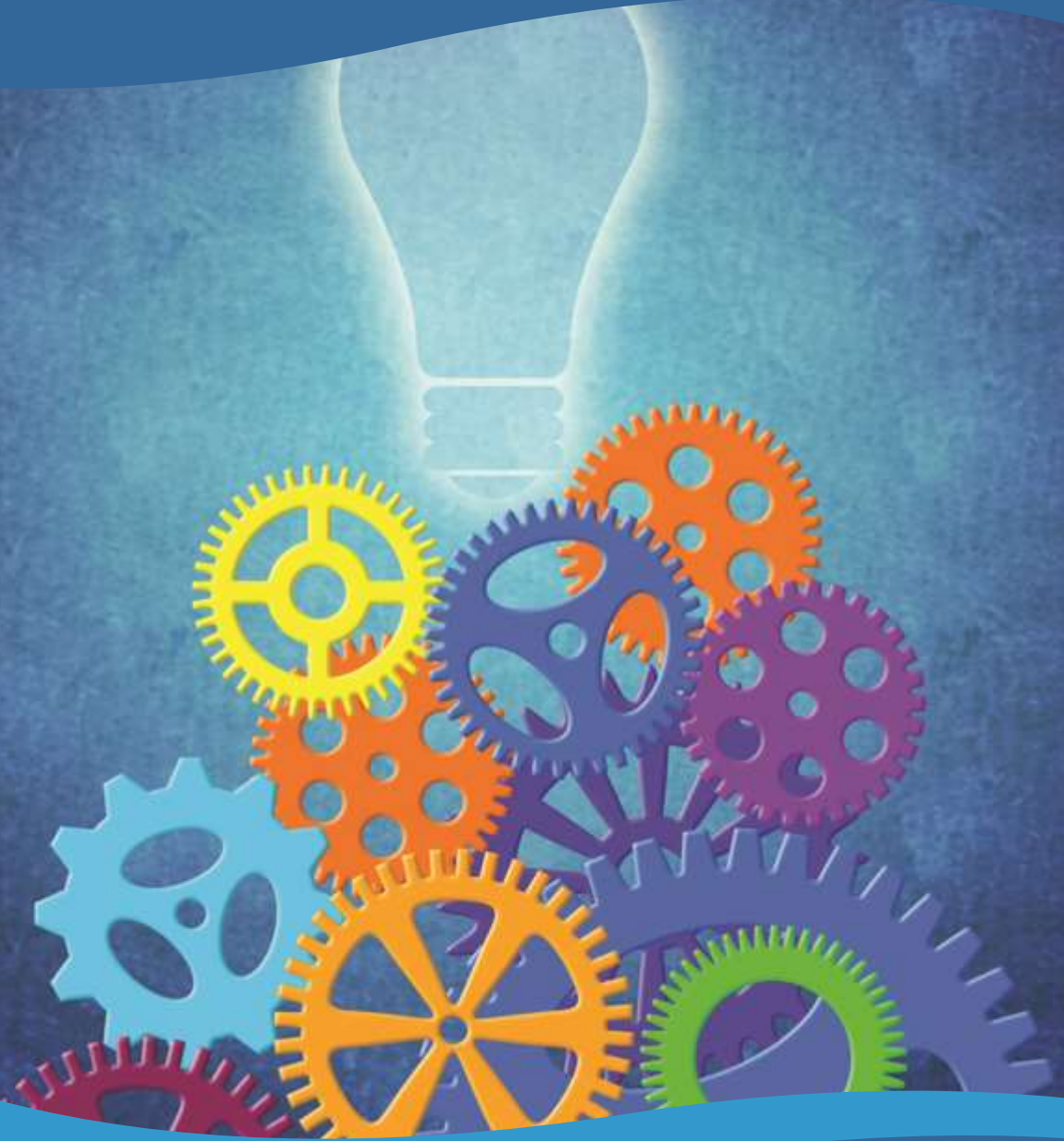


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Abstract Book

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Synthesis and characterization of new Pd(II) complex and its HSA binding study

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Abstract

In this report, we have synthesized a new palladium(II) complex, [PdL₂Cl₂], where L = Ethyl 4-[1-amino-2-cyano-3-(methylamino)-3-thioxo-1-propen-1-yl]-1-piperazine-1-carboxylate. In water solution (5 mL) of K₂[PdCl₄] (0.0653 g; 0.20 mmol) was added 10 mL of a hot ethanolic ligand solution (0.1189 g; 0.4 mmol). The resulting mixture was stirred for 2 hours at room temperature until the reagents had completely dissolved. The solution then was filtered off under vacuum and the resulting yellow powdery precipitate was washed with diethyl ether. The characterization of the synthesized complex [PdL₂Cl₂] was carried out by elemental microanalysis, IR spectroscopy and determination of the melting point. The interaction of the new complex with human serum albumin (HSA) was investigated by fluorescence spectroscopy. The high value of the binding constant, K_b , and the Stern-Volmer quenching constant, K_{sv} , are the result of good binding of the complex to HSA.