**Nanobiotechnology for health-care**

**biological effect of nano compound (3-(4-(1H-imidazo[4,5-f][1,10] phenanthrolin-2-yl) phenoxy)propyl) Fe3O4dimethoxysilanol) Cobalt(II) nitrate ions as immobilized affinity system for hemoglobin)**

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In this study, phenntherolin dion and its derivatives have been used in chemical reactions for a long time. Synthesis of imidazole compounds containing the piperidil group that will be formed as a result of the reaction of a 1,10-phenanthrolene-5,6-dion reaction in this letter, and manufacture these with various mineral complexes. In addition, links that have been assembled along with nanoparticles to be used as column packing materials have been added to the hardness of affinity metal chromatography (IMAC) commonly used in protein purification. Uses of biotechnology.

We used (3-(4-(1H-imidazo[4,5-f][1,10] phenanthrolin-2-yl)phenoxy)propyl) Fe3O4dimethoxysilanol) Cobalt(II) nitrate ions. the obtained nanoparticle containing the ligand-metal complex, Then interacted with proteins such as hemoglobin for immobilization and the binding quantities compared.

**Akey:- (1,10-phenanthroline-5,6-dione, (SPION),** **Hemoglobin)**



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