**Synthesıs Of (3-(4-(1H-imidazo[4,5-f][1,10]phenanthrolin-2-yl)phenoxy)propyl) Fe3O4dimethoxysilanol) Diacetoxynickel**

***Ali Hussein AL-OABİDİ, Aslıhan Yılmaz OBALI, Halil Ismet UÇAN***

Department of Chemistry, Faculty of Sciences, Selcuk University, 42075, Konya, Turkey

*hucan33@gmail.com*

In this study, 1,10-phenanthrolene-5,6-dion was used. Phenanthrimidazole, which contains pyridine group of 1,10-phenanthroline-5,6-din and aldehyde derivatives, was prepared (SPION) - (3-Aminopropyl) triethoxysilane (CPTS) ligand compound was prepared (3-(4-(1H-imidazo[4,5-f][1,10]phenanthrolin-2-yl)phenoxy)propyl) Fe3O4dimethoxysilanol) then Ni (CH3COO) 2.4H2O was added to a solution The mixture was stirred at 90 ° C for 24 hours. The mixture cooled to room temperature was washed with water cooled to 5 ° C and the vacuum was dried.

We used (3-(4-(1H-imidazo[4,5-f][1,10]phenanthrolin-2-yl)phenoxy)propyl) Fe3O4dimethoxysilanol) Diacetoxynickel The obtained nanoparticle containing the ligand-metal complex is then will be interacted with some proteins such as albumin and hemoglobin for immobilization and the binding quantities will be compared.



**[1]** Samy N. A., Alexander V.‘New star-shapedtrinuclear Ru(II) polypyridine complexes of imidazo[4,5-f][1,10]phenanthroline derivatives: syntheses, characterization, photophysical and electrochemical properties’, Dalton Trans, 2011,40, 8630–8642.

**[2]** Obali A.Y.,Ucan H.I., ‘Ruthenium(II) Complexes of Mono-, Di- and Tripodal Polypyridine Ligands: Synthesis, Characterization, and Spectroscopic Studies, J. Fluoresc, 2015, DOI 10.1007/s10895-015-15500.

**[3]** Recent advances in superparamagnetic iron oxide nanoparticles (SPIONs) for in vitro and in vivo cancer nanotheranostics Ganeshlenin Kandasamy, Dipak Maity ,Nanomaterials Lab. Department of Mechanical Engineering, Shiv Nadar University, Uttar Pradesh 2014, India.