



## Synthesis and Characterization of Iron (III) Complex Containing Schiff Bases Derived from Sulfadiazine

Ahmed Neamah Thamer Al-Yasiry

The General Directorate of Educational in Najaf Al-Ashraf,  
Dr. Enad Ghazwan Preparatory School for Boys, **IRAQ**

Email: [ahmedalyasiry@yahoo.com](mailto:ahmedalyasiry@yahoo.com)

Accepted on 7<sup>th</sup> November 2017, Published online on 27<sup>th</sup> November 2017

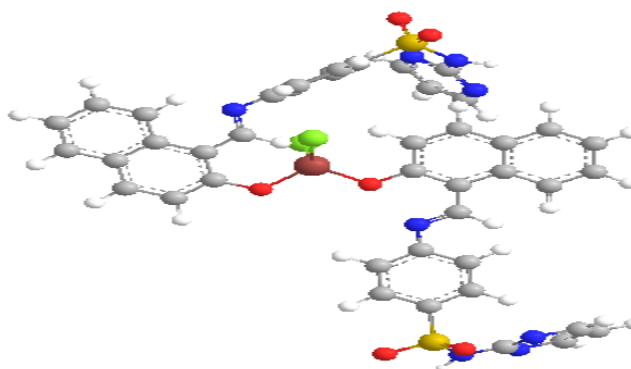
### ABSTRACT

Schiff base compound [(4-((2-hydroxynaphthalen-1-yl) methylene amino)-N-(pyrimidin-2-yl) benzene sulfonamide) (L) was synthesized by reaction Sulfadiazine with 2-hydroxy naphthaldehyde in glacial acetic acid as solvent and catalyst. New complex (Lx) of Fe (III) with organic ligand Schiff base was also prepared. Ligand and complex were identified by elemental analysis, magnetic moment, <sup>1</sup>H-NMR spectrum and molar conductance along with electronic and infrared spectral analysis. Octahedral geometry around this metal ion has been proposed on the basis of magnetic and spectral studies.

### High Lights:

1. Synthesis and characterization new ligand [(4-((2-hydroxynaphthalen-1-yl)methyleneamino)-N-(pyrimidin-2-yl)benzenesulfonamide]
2. Synthesis New complex of Fe(III)with organic ligand Schiff base
3. Study magnetic and spectral properties of ligand and complex
4. Study anti-bacterial activity of ligand and complex

### Graphical Abstract:



**Keywords:** Sulfadiazine, Schiff base, Ligand and complex.