Vali-e-Asr University of Rafsanjan

19th Iranian Seminar on Organic Chemistry
Vali-e-Asr University of Rafsanjan, 5 -7 Sep. 2012

Synthesis and characterization of new mixed-donor Schiff base ligands derived from 2-hydroxynaphthaldehyde

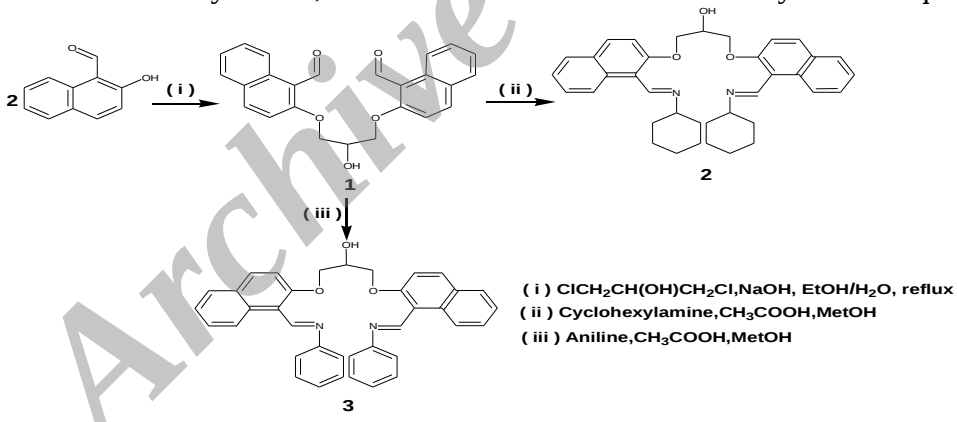
KameliaNejati[a],*AlirezaBanaei*[b], *ZolfagharRezvani*[c], *HadiMofidKarimkandi*[a]
[a] Department of Chemistry, Payam Noor University-Tabriz Center, Tabriz, Iran
[b] Department of Chemistry, Payam Noor University-Ardabil Center, Ardabil , Iran
[c] Department of Chemistry, Azarbaijan University of TarbiatMoallem , Tabriz, Iran

E-mail: *hadimofid@yahoo.com*

Schiff bases and the relevant metal complexes have great interest in coordination chemistry although this subject has been extensively studied. These compounds exhibit biological activity as antiviral and antitumor, they have attracted much interest in recent years due to their significance in the development of new therapeutic agent [1, 2].

There are no reported macroacyclic Schiff base ligand derived from 2-hydroxy naphthaldehyde incorporating pendant alcohol function. In this research work we report the synthesis and characterizationof2-[3-(2-Formylnaphthoxy)-2-hyroxypropoxy]naphthaldehyde and its two macroacycle Schiff base ligands. The hydroxyl group at the C-backbone in these compounds has been chosen because it is easily transformed to amines or other substituents with linking potential for attachment to other substrates to produce, for example, immobilized systems for metal-ion scavenging [3].

2-[3-(2-Formylnaphthoxy)-2-hyroxypropoxy]naphthaldehyde was prepared by the method of Lindoy and Armstrong [4] with minor modification. All of these three compounds synthesized for first time and characterized by FT-IR,^{1}H and^{13}C NMR and elemental analysis techniques.



References

[1] K. Karaoglu et al. / *SpectrochimicaActa Part A*79 (**2011**) 867–872
[2] K. Karaoglu et al. / *Journal of Molecular Structure* 922 (**2009)**39–45
[3] A.A. Khandar, S.A. Hosseini-Yazdi/ *Polyhedron 22* (**2003**) 1481-1487
[4] L.F. Lindoy, L.G. Armstrong, *Inorg. Chem. 14* (**1975**) *1322*.