**Dendrimeric fluorescent Chemosensor** **for Recognition of cobalt ion**

Chandana B. Roya, Jyotsna S. Meshrama\*

*aSchool of Chemical Science, North Maharashtra University, Jalgaon-425001.Maharashtra, INDIA*

[*roychandana2010@gmail.com*](mailto:roychandana2010@gmail.com)*,* [*drjsmeshram@rediffmail.com*](mailto:drjsmeshram@rediffmail.com)

**Abstract:**

Herein, we have synthesized new dendrimer 3,3’,3”,3”’-(ethane-1,2-diylbis(azanetriyle))tetrakis(N’-(2-hydroxybenzyllidene)propanehydrazide) chemosensor for Co2+ metal ion. Formation of Dendrimeric metallic complexes (DMC) reaction between terminal groups of modified dendrimer as chemosensor with different host metal ion is reported in the present study. Dendrimeric metallic complexes were investigated with the help of Fourier transform infrared spectroscopy, Nuclear magnetic resonance (1HNMR and 13CNMR) and UV- visible. Thermal properties of synthesized dendrimer and dendrimeric metal complex is studied with the help of Thermal gravimetric analysis. The synthesized DMC exhibits fluorescence staining. This receptor shows “turn on” fluorescence by subsequent addition of metal ion. The enhancement in fluorescence of metal complexes analysed by Fluorescence spectroscopy.

**Key Word:** Dendrimer; Dendrimer metallic complexes; metal ion; Chemosensor; Fluorescence.

