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Title:	Synthesis and characterizations of flexible furfural based molecular receptor for selective recognition of Dy(III) ions
Authors:	Mohan, B. (/jspui/browse?type=author&value=Mohan%2C+B.) Kumar, Sandeep (/jspui/browse?type=author&value=Kumar%2C+Sandeep) Sharma, H.K. (/jspui/browse?type=author&value=Sharma%2C+H.K.)
Keywords:	Dysprosium Flexible Receptor UV-visible Fluorescence
Issue Date:	2020
Publisher:	Elsevier
Citation:	Polyhedron, 183
Abstract:	Herein we report the development of a Dy(III) ion specific flexible molecular receptor incorporated with furan group. The capture experiment of several metal ions covering mono, di and trivalent metal ions with synthesized three molecules has been performed. Only the furan incorporated flexible molecule BMHP selectively recognizes Dy(III) ions and this is supported by the excellent performance of the receptor UV-visible and fluorescence studies. The receptor performed to detect Dy(III) ions at the lowest detection limit of $6.4 \times 10^{-8}$ M with 1:2 (receptor: metal) binding stoichiometry. The mass spectrometry and cyclic voltammetric studies give relevant information about receptor binding with Dy(III) ions.
URI:	<a href="https://www.sciencedirect.com/science/article/pii/S0277538720301947?via%3Dihub">https://www.sciencedirect.com/science/article/pii/S0277538720301947?via%3Dihub</a> ( <a href="https://www.sciencedirect.com/science/article/pii/S0277538720301947?via%3Dihub">https://www.sciencedirect.com/science/article/pii/S0277538720301947?via%3Dihub</a> ) <a href="http://hdl.handle.net/123456789/3351">http://hdl.handle.net/123456789/3351</a> ( <a href="http://hdl.handle.net/123456789/3351">http://hdl.handle.net/123456789/3351</a> )
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