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Title:	Catecholase and phenoxazinone synthase activities of a ferromagnetically coupled tetranuclear Cu(II) complex
Authors:	Kaur, Gurpreet (/jspui/browse?type=author&value=Kaur%2C+Gurpreet) Sharma, G. (/jspui/browse?type=author&value=Sharma%2C+G.) Choudhury, A.R. (/jspui/browse?type=author&value=Choudhury%2C+A.R.) Singh, Yogesh (/jspui/browse?type=author&value=Singh%2C+Yogesh)
Keywords:	Crystallographically Tetranuclear Ferromagnetic Dichloromethane
Issue Date:	2016
Publisher:	Royal Society of Chemistry
Citation:	RSC Advances, 6(63), pp.58831-58838.
Abstract:	A crystallographically characterized tetranuclear Cu(II) complex [Cu <sub>4</sub> (L) <sub>4</sub> ] (1) [H <sub>2</sub> L = N-(2-hydroxyethyl)-3-methoxysalicylaldehyde] is found to show overall ferromagnetic exchange coupling. Complex (1) mimics the catalytic activity of the plant enzyme catechol oxidase by oxidising 3,5-di-tert-butylcatechol to its corresponding quinone in methanol and dichloromethane medium in the presence of aerial oxygen. The reaction follows Michaelis–Menten enzymatic reaction kinetics with turnover numbers (K <sub>cat</sub> ) 6.99 × 10 <sup>3</sup> and 1.85 × 10 <sup>3</sup> h <sup>-1</sup> in methanol and dichloromethane, respectively. 1 is also phenoxazinone synthase active in methanol medium with a turnover number of 1.21 × 10 <sup>5</sup> h <sup>-1</sup> .
Description:	Only IISERM authors are available in the record.
URI:	<a href="https://pubs.rsc.org/en/content/articlelanding/2016/ra/c6ra11433d#!divAbstract">https://pubs.rsc.org/en/content/articlelanding/2016/ra/c6ra11433d#!divAbstract</a> ( <a href="https://pubs.rsc.org/en/content/articlelanding/2016/ra/c6ra11433d#!divAbstract">https://pubs.rsc.org/en/content/articlelanding/2016/ra/c6ra11433d#!divAbstract</a> ) <a href="http://hdl.handle.net/123456789/2618">http://hdl.handle.net/123456789/2618</a> ( <a href="http://hdl.handle.net/123456789/2618">http://hdl.handle.net/123456789/2618</a> )
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