



SDI Review Form 1.6

Journal Name:	International Research Journal of Pure and Applied Chemistry
Manuscript Number:	Ms_IRJPAC_50339
Title of the Manuscript:	Cyanuric Chloride/ Manganese Chloride Tetrahydrate Catalyzed Beckmann Rearrangement of Ketoximes
Type of the Article	Short Research Articles

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Compulsory REVISION comments	<p>1) Table 1; add an entry where the reaction is performed in the absence of a Lewis acid</p> <p>2) please explain the role of Lewis acid in this reaction</p> <p>3) Table 1 shows that except CuCl all the Lewis acid are equally effective. Then why MnCl₂·4H₂O was preferred? Is it cheaper than SnCl₂·2H₂O? Please explain.</p> <p>4) CuCl was ineffective but what about CuCl₂ or CuCl₂·2H₂O?</p> <p>5) Include a reaction mechanism showing the role of Lewis acid.</p> <p>6) it is not clear which products are known and what are unknown. For known products provide the corresponding reference. For unknown products full spectral data e.g. ¹H NMR, ¹³C NMR, MS (mandatory) and IR (if possible) should be provided.</p>	<p>1) Entry 11 was performed in the absence of MnCl₂·4H₂O.</p> <p>2) A mechanism for Beckmann rearrangement was proposed in Scheme 1.</p> <p>3) In previous report (J Am Chem Soc; 2005; 127(32): 11240-11241.), cyanuric chloride was an effective organocatalyst in Beckmann rearrangement. Lewis acid, such as ZnCl₂, was effective as cocatalysts for cyanuric chloride. In this paper, we expanded the scope of the cocatalyst, and MnCl₂·4H₂O was preferred as the best one according to the yield and cost-effectiveness.</p> <p>4) CuCl₂ was used in previous report (J Am Chem Soc; 2005; 127(32): 11240-11241.) and the yield was poor.</p> <p>5) A mechanism for Beckmann rearrangement was proposed in Scheme 1 and two new references were added (12, 13).</p> <p>6) All the products in this paper are known and confirmed by ¹H NMR. So it is not necessary to provide full spectral data.</p>
Minor REVISION comments	The catalyst system should not be called as efficient (abstract, conclusion etc) because product yields are less than 80% in several cases (Table 3)	<p>The following sentence has been deleted: In conclusion, a mild approach for Beckmann rearrangement of ketoximes has been reported. (abstract).</p> <p>The first sentence in the conclusion part was corrected as: A new catalytic system for Beckmann rearrangement method for ketoximes was reported.</p>
Optional/General comments	There are many reports on the successful use of cyanuric chloride in Beckmann rearrangement. On the other hand the reaction does not proceed in the absence of cyanuric chloride (entry 9, Table 1). So is there any need to use Lewis acid?	The catalytic effect is poor when using cyanuric chloride or MnCl ₂ ·4H ₂ O alone (entry 9 and 11), which determined MnCl ₂ ·4H ₂ O as the cocatalysts in the rearrangement.

PART 2:



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	Reviewer's comment	Author's comment <i>(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	