

Review Form 1.7

Journal Name:	Journal of Pharmaceutical Research International
Manuscript Number:	Ms_JPRI_97044
Title of the Manuscript:	Infrared Spectroscopic Study of Binding Interaction of Metal Complexes with Mefenamic Acid (MFA)
Type of the Article	Original Research Article

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:

(<https://www.journaljpri.com/index.php/JPRI/editorial-policy>)

Review Form 1.7

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)
<p>Compulsory REVISION comments</p> <p>1. Is the manuscript important for scientific community? (Please write few sentences on this manuscript)</p> <p>2. Is the title of the article suitable? (If not please suggest an alternative title)</p> <p>3. Is the abstract of the article comprehensive?</p> <p>4. Are subsections and structure of the manuscript appropriate?</p> <p>5. Do you think the manuscript is scientifically correct?</p> <p>6. Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.</p> <p><u>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</u></p>	<p>Yes Yes Yes Yes Yes Yes</p> <p>To Date: 23/02/2023 The Editor Journal of Pharmaceutical Research International</p> <p>Reviewer's comments for Ms_JPRI_97044</p> <p>The manuscript titled as "Infrared Spectroscopic Study of Binding Interaction of Metal Complexes with Mefenamic Acid (MFA)" aimed to investigate the 1:1 complex that was generated when MFA interacted with the metals Cu²⁺, Zn²⁺, and EDTA⁴⁻ in physiological conditions. This study is performed to gain a better comprehension of the pharmacological experiments. The results of this study offered information on the binding affinity of MFA with several metals. In the pharmaceutical industry, it assists with preparative, structural, and reactivity investigations for multiple drug design. The purpose of this investigation is to find the complex compound with different functional groups. This paper highlighted the binding affinity of mefenamic acid. This study reported IR spectra of Cu, Zn and EDTA complex of Mefenamic Acid in the region between 4000 and 400 cm⁻¹. This study highlighted that metal-based complexes decrease antiviral, antibacterial, and anticancer action. This investigation concluded that in order to construct actively functioning medications, it's important to study the ability of physiologically active metal ions to interact with metalloproteinase like albumin, which transport and distribute these metal ions.</p> <p>This manuscript is written methodically, logically and technically. Nonetheless, some points and errors should be rectified before the publication of this manuscript. This manuscript needs further refinement. The reviewer therefore recommends the publication of this manuscript after Major revision according to the following comments.</p> <p>Comment 1: In the introduction section, the author should explain more about the urgency of the research in this field.</p> <p>Comment 2: Introduction section is very lengthy. There are unnecessary and old references included in this section. Kindly reduce the length of this section. It should be brief and precise.</p> <p>Comment 3: There are many grammatical errors found throughout the manuscript. Therefore, authors are advised to go through the entire manuscript carefully and rectify the grammatical mistakes.</p> <p>Comment 4: Please refer page 3 section 'Materials and reagents'. It is written as "Copper sulfate (Cu₂SO₄), Zinc sulfate (ZnSO₄)". Please correct it as copper sulphate (CuSO₄) and zinc sulphate.</p>	

Review Form 1.7

	<p>Comment 5: There are many papers published on metal complexes with Mefenamic Acid (MFA).</p> <p>Comment 6: What are the challenges faced by authors during the FT-IR spectra for mefenamic acid, copper metal, zinc metal, EDTA and physical mixture of these drugs at the ratio of (1:1)?</p> <p>Comment 7: What is the further scope of research in this field? Please incorporate it in revised manuscript.</p> <p>Comment 8: Why did author cool the reaction mixture to 5°C in a refrigerator for 4 hours during the synthesis of complexes? Please clarify it.</p> <p>Comment 9: Why did author wash the precipitate with cold methanol\water? Please clarify it.</p> <p>Comment 10: Why did author add a solution of EDTA (0.48 mmol) methanol (2.0mL) to a solution of MFA (1.4 mmol) in methanol (2.0 mL). Please discuss it.</p> <p>Comment 11: Please refer Table 1, Table 2 and Table 3. It should be in proper format. Text should be properly aligned.</p> <p>Comment 12: There are some minor errors found in list of references. The abbreviation for all journals needs to be written properly in list of references. Page numbers, Punctuations and volume are not written properly for a few references. It is advised that please follow the same style of references throughout. Author needs to follow the guidelines of the journal and uniformity. Author can download recently published papers to follow it properly. So, it is advised that please check all the references properly and rectify all the mistakes such as author's name, punctuations (, .etc), year, volume, journal name abbreviations, page numbers etc.</p> <p>I am sure that these suggestions will certainly improve the present manuscript.</p> <p>Thanks Reviewer</p>	
<p>Minor REVISION comments 1. Is language/English quality of the article suitable for scholarly communications?</p>	<p>Yes</p>	
<p>Optional/General comments</p>	<p>NIL</p>	

PART 2:

	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)
<p>Are there ethical issues in this manuscript?</p>	<p><i>(If yes, Kindly please write down the ethical issues here in details)</i></p>	

Reviewer Details:

<p>Name:</p>	<p>Vijaykumar S. Bhamare</p>
<p>Department, University & Country</p>	<p>Visvesvaraya Technological University, India</p>