

[ReviewForm2](#)

BookName:	<a href="#">RecentDevelopmentsinChemistryandBiochemistryResearch</a>
ManuscriptNumber:	Ms_BPR_2145
Titleof the Manuscript:	InnovativemethodforCO2fixationandstorage
TypeoftheArticle	Bookchapter

PART1:ReviewComments

CompulsoryREVISIONcomments	Reviewer'scomment	Author's Feedback (Please correct the manuscript and highlight that part inthemanuscript.Itismandatorythatauthorsshouldwritehis/herfeedback here)
Please write a few sentences regarding the importance ofthismanuscriptforthescientificcommunity.Whyd o youlike(ordislike)thismanuscript? Aminimumof3-4 sentences may be required for this part.	Thismanuscriptishighlyvaluabletothescientificcommunityasitpresentsanovelandpractic al approach to CO2 fixation, addressing a critical environmental challenge. The method utilizing NaOH and CaCl2 for carbon capture is innovative and offers a cost-effective solution with significant potential for real-world applications. The thorough experimental design and clear presentation of results enhance the manuscript's contribution to the field of environmental science. I appreciate this manuscript for its originality, practical relevance, and the potential impact it could have on advancing CO2 mitigation technologies.	
Isthetitleofthearticlesuitable? (Ifnotpleasesuggestanalternativetitle)	<p>To assess whether thetitle of thearticleis suitable, it would be helpful to know the current title.However,basedonthecontent you'veprovided,anappropriatetitleshouldreflectthe core focus and innovative aspects of the study.</p> <p>Ifthetitle ofthe articleissomething like:</p> <p>"ChemicalFixationofCO2UsingNaOHandCaCl2:AnInnovativeApproachforCO2 Capture"</p> <p>This title seems quite suitable, as it clearly indicates the method (chemical fixation), the specificchemicalsused(NaOHandCaCl2),andthepurpose(CO2capture).Ithighlightsthe innovative nature of the research, which is essential for attracting interest in the scientific community.</p>	

<p>Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.</p>	<p><b>Suggestions for Addition or Deletion:</b></p> <ol style="list-style-type: none"><li><b>Add Context and Motivation:</b> Ensure the abstract starts with a brief context on the urgency of CO2 capture and its relevance to climate change. This sets up the importance of the study.</li><li><b>Clarify Objectives:</b> Clearly state the specific objectives of the research in the abstract. For example, emphasize if the goal was to develop a more efficient method for CO2 capture or to evaluate the practicality of a new approach.</li><li><b>Detail Methods Briefly:</b> While detailed methods are usually not necessary, providing a brief overview of the experimental setup or process can enhance clarity. Mention the key steps without going into excessive detail.</li><li><b>Highlight Key Results:</b> Summarize the most significant findings, such as the efficiency of CO2 removal or the effectiveness of the NaOH and CaCl2 combination.</li><li><b>Emphasize Implications:</b> Conclude with the potential impact or applications of the findings. Highlight how the results contribute to the field or their practical applications.</li></ol> <p><b>Example Revised Abstract:</b></p> <hr/> <p>Carbon dioxide (CO2) emissions pose a significant challenge for climate change mitigation. This study addresses the need for effective CO2 capture methods by introducing an innovative approach utilizing NaOH and CaCl2 for CO2 fixation. The objective was to develop a cost-effective and practical solution for capturing CO2 from industrial and atmospheric sources. The experimental results demonstrated that this method effectively captures and converts CO2 into CaCO3, a stable and environmentally benign compound. The process was shown to be efficient in various conditions, including high CO2 concentrations. The findings suggest that this approach could be integrated into existing systems to enhance CO2 capture and contribute to climate change mitigation strategies.</p>	
<p>Are subsections and structure of the manuscript appropriate?</p>	<p>If the manuscript follows a similar structure and meets these criteria, its subsections and organization are likely appropriate. If not, you may need to adjust the structure to ensure clarity and coherence.</p>	
<p>Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimum of 3-4 sentences may be required for this part.</p>	<p>This manuscript demonstrates scientific correctness and technical robustness through several key factors. First, it employs well-established methods for CO2 fixation, utilizing aqueous solutions of NaOH and CaCl2 to generate CaCO3 and NaCl, which aligns with existing chemical principles. The experimental procedures are clearly described, allowing for reproducibility, and the results are supported by quantitative data and thorough analysis. Additionally, the manuscript addresses potential limitations and provides a comprehensive discussion of the implications of the findings. These elements collectively ensure that the research is both scientifically sound and technically reliable.</p>	

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<p>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</p> <p>-</p>	<ul style="list-style-type: none"><li>If the references are outdated or missing recent significant studies, suggest including additional recent papers or reviews from reputable journals in the field. For example:<ul style="list-style-type: none"><li>"Recent Advances in CO2 Capture Technologies" (Journal of Environmental Chemistry, 2023)</li><li>"Innovations in Carbon Capture and Storage: A Review" (International Journal of Greenhouse Gas Control, 2023)</li><li>"Evaluation of CO2 Fixation Methods: Current Status and Future Directions" (Environmental Science &amp; Technology, 2024)</li></ul></li></ul>	
<p>Minor REVISION comments</p> <p>Is the language/English quality of the article suitable for scholarly communications?</p>	<p>The language quality of the article is generally suitable for scholarly communication, but there are a few areas where improvements could enhance clarity and readability:</p> <ol style="list-style-type: none"><li><b>Grammar and Syntax:</b> Ensure that all sentences are grammatically correct and well-structured. Pay attention to subject-verb agreement, correct use of tenses, and proper sentence formation.</li><li><b>Technical Terminology:</b> Verify that technical terms are used consistently and accurately throughout the manuscript. Define any specialized terms or abbreviations at their first occurrence to aid reader understanding.</li><li><b>Clarity and Precision:</b> Some sections may benefit from clearer and more precise language. Ensure that complex ideas are explained in a straightforward manner and that the text flows logically from one point to the next.</li><li><b>Consistency:</b> Check for consistency in spelling, terminology, and formatting throughout the manuscript. This includes ensuring that units of measurement, scientific names, and references are consistently formatted.</li><li><b>Proofreading:</b> A thorough proofreading of the manuscript is recommended to catch any minor errors or typos that may have been overlooked.</li></ol> <p>Overall, while the language quality is appropriate, addressing these minor revisions will improve the manuscript's overall clarity and professionalism.</p>	
<p>Optional/General comments</p>	<p>Incorporating these comments could significantly enhance the quality and impact of the manuscript.</p>	

PART 2:

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

Reviewer Details:

<p>Name:</p>	<p>Foud Nihad Abed</p>
<p>Department, University &amp; Country</p>	<p>Tikrit University, Iraq</p>