

### Review Form 3

Journal Name:	<a href="#">Chemical Science International Journal</a>
Manuscript Number:	Ms_CSIJ_123980
Title of the Manuscript:	The Interaction of Nickel (II) ion with Ethylene Diamine (en) Chelate using Ethaline (ionic liquid) as Solvent
Type of the Article	Original research article

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#### PART 1: Review Comments

Compulsory REVISION comments	Reviewer's comment	Author's Feedback <i>(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
<p><b>Please write a few sentences regarding the importance of this manuscript for the scientific community. Why do you like (or dislike) this manuscript? A minimum of 3-4 sentences may be required for this part.</b></p>	<p>This manuscript makes a valuable contribution to the field of coordination chemistry in ionic liquid media. The study of nickel(II) complexation with ethylene diamine in a deep eutectic solvent (ethaline) provides important insights into how these novel solvents affect metal-ligand interactions. The comparison with aqueous media results is particularly useful, allowing researchers to understand the differences in complex formation and stability between conventional and ionic liquid solvents. This work could have implications for various applications, including electroplating, catalysis, and metal extraction processes using ionic liquids.</p>	
<p><b>Is the title of the article suitable? (If not please suggest an alternative title)</b></p>	<p>The title "The Interaction of Nickel (II) ion with Ethylene Diamine (en) Chelate using Ethaline (ionic liquid) as Solvent" is generally suitable. However, it could be more concise and specific. A suggested alternative is: "Spectrophotometric Study of Nickel(II)-Ethylenediamine Complexes in Ethaline Deep Eutectic Solvent"</p>	
<p><b>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.</b></p>	<p>The abstract provides a good overview but could be improved by:</p> <ol style="list-style-type: none"> <li>1. Specifying the concentrations of Ni(II) and ethylenediamine used.</li> <li>2. Including at least one quantitative result, such as a key stability constant value.</li> <li>3. Adding a brief statement on the potential applications or implications of the findings.</li> <li>4. Mentioning the temperature at which the experiments were conducted.</li> </ol>	
<p><b>Are subsections and structure of the manuscript appropriate?</b></p>	<p>The overall structure is appropriate, following a logical flow from introduction to conclusion. However, the manuscript would benefit from:</p> <ol style="list-style-type: none"> <li>1. A clearer separation between the Results and Discussion sections.</li> <li>2. Addition of subheadings within the Results/Discussion to delineate findings for each complex (1:1, 1:2, 1:3).</li> <li>3. A dedicated Materials and Methods section before the Results.</li> <li>4. More consistent formatting of figures and tables.</li> </ol>	
<p><b>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.</b></p>	<p>The manuscript appears scientifically sound and technically robust. The use of well-established spectrophotometric methods (Job's method and molar ratio method) lends credibility to the results. The authors have taken care to control experimental conditions and provide multiple measurements. The comparison of results with literature values for aqueous systems provides a good benchmark. The interpretation of spectral data and stability constant calculations seems appropriate, and the authors acknowledge limitations in some measurements, demonstrating scientific integrity.</p>	
<p><b>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</b></p> <p>=</p>	<p>The reference list is comprehensive, covering both foundational and recent work in the field. To further strengthen the literature review, consider adding some very recent papers (last 1-2 years) on:</p> <ol style="list-style-type: none"> <li>1. Metal complexation in ionic liquids or deep eutectic solvents</li> <li>2. Applications of metal-ligand complexes in ionic liquid media</li> <li>3. Advances in spectrophotometric techniques for studying coordination compounds in non-aqueous solvents</li> </ol> <p>These additions would help place the current work in the context of the most recent developments in the field.</p>	

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<p>Minor REVISION comments</p> <p><b>Is the language/English quality of the article suitable for scholarly communications?</b></p>	<p>Based on my review of the manuscript, the language quality is generally adequate for conveying the scientific content, but there is room for improvement to meet the standards typically expected in scholarly communications. Here are some observations and suggestions:</p> <ol style="list-style-type: none"> <li>1. Overall clarity: The scientific concepts are generally well-explained, but some sentences are overly long or complex, which can hinder clarity.</li> <li>2. Grammar and syntax: There are occasional grammatical errors and awkward phrasings throughout the text. For example, in the abstract: "For this experiment, this is the first time using 1 choline chloride (ChCl) : 2 ethylene glycol (EG)based liquid (ethaline) to study the interaction between Ni (II) with ethylene diamine." This sentence could be rephrased for better clarity.</li> <li>3. Consistency: There are some inconsistencies in terminology and formatting, such as varying ways of referring to the deep eutectic solvent (e.g., "ethaline", "1 ChCl: 2 EG based liquid").</li> <li>4. Technical language: While the technical terms are generally used correctly, there are instances where more precise language could be employed.</li> <li>5. Punctuation: There are several instances of missing or misplaced commas, which can affect readability.</li> <li>6. Acronyms: Some acronyms are introduced without being fully spelled out first.</li> <li>7. Tense usage: There are some inconsistencies in tense usage, particularly when describing methods and results.</li> </ol> <p>To improve the language quality:</p> <ol style="list-style-type: none"> <li>1. The manuscript would benefit from a thorough proofreading by a native English speaker or a professional editing service.</li> <li>2. Simplify long, complex sentences into shorter, more direct statements.</li> <li>3. Ensure consistent use of terminology throughout the paper.</li> <li>4. Review and correct punctuation, particularly comma usage.</li> <li>5. Standardize the introduction and use of acronyms.</li> <li>6. Maintain consistent tense usage, typically past tense for methods and results, and present tense for established facts and conclusions.</li> </ol> <p>While the current language quality does not severely impede understanding of the scientific content, addressing these issues would significantly enhance the manuscript's readability and professional presentation, making it more suitable for scholarly communication.</p>	
<p><b>Optional/General</b> comments</p>	<p>This study on nickel(II)-ethylenediamine complexation in a deep eutectic solvent presents valuable insights into coordination chemistry in ionic media, offering sound experimental work and useful comparisons to aqueous systems, though it would benefit from structural refinements and expanded discussion of implications.</p>	

**PART 2:**

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

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