

## Review Form 1.6

Journal Name:	<a href="#">International Research Journal of Pure and Applied Chemistry</a>
Manuscript Number:	Ms_IRJPAC_71134
Title of the Manuscript:	Recent advances on the Synthesis, Reactions and Evaluation of the Biological Activities of Quinoxaline, Quinoxaline-2-one and Quinoxaline-2,3-dione
Type of the Article	Review 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:

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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)
<b>Compulsory</b> REVISION comments	<p>The authors emphasize that the review "Recent advances on the Synthesis, Reactions, and Evaluation of the Biological Activities of Quinoxaline, Quinoxaline-2-one and Quinoxaline-2,3-dione" spans the years 1980 to the present, however, the most recent material cited is from 2014. Thus, to truly encompass all current improvements, a new review of the literature should be conducted to summarize the most recent findings.</p> <p>Throughout the review, the authors used a relatively simple approach to describe several synthetic methods. They concentrated on the procedures utilized to synthesize quinoxaline, quinoxaline-2-one, and quinoxaline-2,3-dione derivatives that were then examined in biological assays. As a result, this is not a review focused mainly on synthesis but rather on their applications. In that case, it would be better to describe their properties, after the description of the synthesis.</p> <p>Additionally, the schemes must be improved. The reaction schemes are impoverished in information since most of them show only the reagents and products. While the catalysts are described in the text, they should be represented in the scheme for ease of visualization and comprehension and given the exact yields. The authors refer to the yield as "good" and "high," yet they do not specify an exact value for the success of the associated reaction. It should be mentioned in both the text and the accompanying reaction scheme.</p> <p>While discussing various biological applications, the authors omitted to provide the IC<sub>50</sub> or MIC, which is an important value to understand the potency of the compounds against a specific disease. They also did not provide structural examples of quinoxaline derivatives that are active biologically.</p> <p>Concluding, the review is incomplete and should be updated with the latest research (after 2014), as well as the strategies and scientific information surrounding the syntheses and applications of these compounds should be improved.</p>	
<b>Minor</b> REVISION comments	-	
<b>Optional/General</b> comments	-	

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

### Reviewer Details:

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