**RESPONSE TO REVIEWERS**

Dated: 19-07-2016

**Journal of the Serbian Chemical Society**

**Manuscript ID:** **JSCS2471**

**Submission Title:** **Synthesis and antimicrobial evaluation of some 1′-(4-arylthiazol-2-yl)-2-(aryl/heteroaryl)-3′,5-dimethyl-1′*H*,2*H*-3,4′-bipyrazol-5′-ols**

Thank you for your useful comments and suggestions on the structure of our manuscript submitted for publication in Journal of the Serbian Chemical Society (JSCS). We have revised/modified the manuscript accordingly and detailed corrections are listed below point by point:

**Reviewer C:**

Does the manuscript contain enough significant original material?:

Yes

Is the manuscript clearly and concisely written?:

Yes

Are the conclusions adequately supported by the data?:

Yes

Does the manuscript give appropriate credit to related recent publications?:

Yes

Are the references appropriate and free of important omissions?:

Yes

Is the length of the manuscript appropriate?:

Yes

Does the manuscript need condensation or extension?:

No

Is the quality of the figures (including legends and axes labelling) satisfactory?:

Yes

Are the nomenclature and units in accordance with SI?:

Yes

Are the English grammar and syntax satisfactory?:

Yes

ADDITIONAL COMMENTS

Please indicate the page numbers for suggested corrections.

Please, be as specific as possible if major correction by the author(s) is recommended! :

No correction

REPORT:

The manuscript entitled “Synthesis and antimicrobial evaluation of some 1′-(4-arylthiazol-2-yl)-2-(aryl/heteroaryl)-3′,5-dimethyl-1′*H*,2*H*-3,4′-bipyrazol-5′-ols by SATBIR MOR *et al* described the synthesis of sixteen new bipyrazole derivatives. The synthesized compounds were well characterized by modern analytical methods (IR, NMR and Mass).

In addition, antimicrobial activities of the new derivatives have been reported. Also, docking studies were performed.

In my view, the manuscript is well written and the scientific content of the paper is sufficient for publication.

I recommend the manuscript for publication.

In my opinion, this manuscript should:

be published as is

If manuscript is suitable for publishing, referees recommendation:

Original scientific paper

**Response:** Thanks for your positive comments. There was no suggestion from Reviewer C.

**Authors are thankful to the reviewer for recommending the manuscript for publication in Journal of the Serbian Chemical Society.**

**Reviewer E:**

Does the manuscript contain enough significant original material?:

Yes

Is the manuscript clearly and concisely written?:

No

Are the conclusions adequately supported by the data?:

Yes

Does the manuscript give appropriate credit to related recent publications?:

Yes

Are the references appropriate and free of important omissions?:

Yes

Is the length of the manuscript appropriate?:

No

Does the manuscript need condensation or extension?:

Yes

Is the quality of the figures (including legends and axes labelling) satisfactory?:

Yes

Are the nomenclature and units in accordance with SI?:

Yes

Are the English grammar and syntax satisfactory?:

Yes

ADDITIONAL COMMENTS

Please indicate the page numbers for suggested corrections.

Please, be as specific as possible if major correction by the author(s) is

recommended! :

2,3,11

REPORT:

Paper of Satbir Mor, and coworkers, reports essential research and I would like to support publication of this material. Technical quality of this study is solid and all the compounds reported are reasonably fully characterized and documented. This paper contributes to the chemistry of bipyrazole compounds, which have attracted significant interest in the context of organic, supramolecular and biological activity researches.

Some revision could be helpful:

1) considering Docking Simulations I was intriguing whether the thiazole/benzothiazole S-atom

could be involved in some attractive interactions with certain electronegative groups thus providing additional sites for the substrate binding. Such kind of attractive interactions with positively polarized thiazole sulfur, for example S…O, is highly relevant for conformations and crystal packings of thiazole derivatives. Moreover, such weak bonding is principal for many natural and biologically active compounds, for example thiamine. The authors have at least mention this possibility in the context of their findings. For the distances, such as “H…O = 2.91703 for 7m” provide just reasonable number of decimal letters, c.f. 2.92. Moreover, this parameter evidently refers to O…O (or N…O) distances, not to H…O.

2) I like the alive discussion across the manuscript, but in my opinion, the paper needs shortening. The reaction/preparative part of the research is essentially routine and there are no necessity for too lengthy discussions and explanations, including very evident and routine Scheme 2. Introductory material may be also significantly shortened, together with non-adequately wide literature citations including nearly 120 sources. The latter is appropriate for comprehensible review but not for the present research.

In my opinion, this manuscript should:

be published after minor revision without additional review

If manuscript is suitable for publishing, referees recommendation :

Original scientific paper

**Response:** Thanks for your valuable suggestions! As desired by the reviewer, the following corrections have been made in the manuscript:

1. The interaction of S atom of benzothiazole ring in compound 7o with pi electrons of Phe258 was not shown previously for the sake of clarity. Now this interaction has been added in fig. 2 (as yellow dotted line) and fig. 2 has been updated as suggested by the reviewer. In the docking part at page no. 8, one line regarding this new interaction has been added *i.e*., “*Also, there was presence of one pi-sulphur interaction between sulphur atom of benzothiazole ring and pi electrons of Phe258*”. Further, “(H…O = 2.91703 for **7m**; H…O = 2.96946 for **7a**)” has been replaced by “(H…N = 2.92 for **7m**; H…N = 2.97 for **7a**)” at page no. 8 of the manuscript. These distances are between N atom of thiazole ring and hydroxyl (OH) group of Thr143. The hydrogen atoms of the amino acids are not shown due to the sake of clarity.

2. Thanks for your constructive suggestion! At page no. 2 and 3, the introduction and reaction/preparative parts of the manuscript have been shortened as desired by the reviewer. Further, we had tried to omit non-adequate literature citations and also the Scheme 2 has been removed from the manuscript.

**Authors are grateful to the reviewer for his valuable comments in improving the quality of the manuscript.**

The manuscript has been resubmitted to your journal. We believe that the manuscript is now acceptable for publication in your esteemed journal. We look forward to your positive response.

Sincerely,

Dr. Satbir Mor