**“Response to the Reviewers’ Comments”**

**Dear Prof. Mirjana Kijevčanin**

The revised version of manuscript entitled “**A thermodynamic approach for correlating the solubility of drug compounds in supercritical CO2 based on Peng-Robinson and Soave-Redlich-Kwong equations of states coupled with van der Waals mixing rules**” with manuscript ID “7561” is resubmitted and all the reviewer comments are responded as below. The comments were applied to the manuscript which are highlighted. We hope it could address all the reviewers’ comments. Also, the whole text of the manuscript is grammatically and syntactically rechecked and revised and probable errors are corrected.

Comment 1: MPa instead of Mpa (check the entire manuscript)

Answer to comment 1 (Page 9, Table III): All the units of MPa are corrected in Table III and all the figures.

Comment 2: Lines 204-205, I do not understand the first sentence, what compression factor expression, be more precise (provide the equation or literature source if necessary). Also, the subsequent two sentences of this paragraph are given in informal (jargon) tone, it should be revised.

Answer to comment 2 (Pages 8, Lines 204-213): The equation number of compressibility factor is specified in the first sentence of the paragraph and the whole paragraph is revised.

Comment 3: Minor grammatical or typographical errors:

- Line 25, "rasing"

- Line 202, "to to"

- Line 236 "aproachs"

- Line 256 "overally"

- line 282 "are given" instead of "is given"

Answer to comment 3(Page 8, line 202, Page 10, line 237, Page 11, line 250, Page 12, lines 256 and 282): All of the mentioned errors are corrected in the revised manuscript.

Thank you for your helpful suggestions. All changes according to above comments are highlighted in the manuscript.

We are thankful for giving us an opportunity to revise our manuscript.

Sincerely,

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