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**Title:** "Optimization of injected Radiotracer volume for Flow rate measurement in closed conduits"

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**Reply to Reviewers comments:**

We would like to thank the Reviewer for the valuable comments and suggestions. We have accepted almost all the suggestions (since in previous Revisions different Reviewers had different suggestions for the same issue) and we believe that we have answered all the questions. Please find the detailed answers and the revised manuscript in which all changes are marked in yellow.

We hope that the manuscript is now improved and acceptable for publication in the Hemijska Industrija. All the comments from the Reviewer have been addressed.

**Answers to Reviewer comments:**

*Line 70: This is not clear – color dyes are not available for phases in industrial processes? Please clarify and present it as a disadvantage.*

* We are very grateful to the Reviewer for the suggestions. The Authors have rephrased the sentence.

*Line 89: Is this mistake? What is MRT difference?*

* Thanks for remark. The mistake that has been made is corrected

*Line 106: It is either t or dt – please correct the Eq. 1 and the text appropriately.*

* The authors thank the Reviewer for the valuable suggestion. The sentence is changed accordingly.

*Line 117: In Fig 2 it is stated that the outlets were at 50, 70 and 100 cm from the inlet . “Apart from one another” is not clear. Please clarify the position of outlet detectors.*

* We are very grateful for the suggestion. The authors have changed and clarified the sentence.

*Line 126: Please explain the Figure – what the stirred tank and the column are and what purpose they served for? What is IN2? Please simplify the Figure to correspond to the experiment described in the text*

* The authors have simplified the figure and explained it in more detail in the caption. We thank the Reviewer for this valuable suggestion.

*Line 129.* *Please add the producer and country of origin*

* The authors have made the requested changes throughout the text.

*Line 139: Is this CAESAR II v.12 (Hexagon PPM, AL)? Please note the mistake in the word CAESAR*

* The authors thank Reviewer for valuable comment. We apologize for *lapsus scribae* and we have corrected the sentence accordingly.

*Line 151: This has to be explained since the method of tracer injection could affect greatly the output. How it was assured that the tracer is flowing at the same rate as water and well-mixed conditions at the injection point?*

* The Authors have left the part of the sentence referring to the Figure. Also the Authors have clarified the statement.

*Line 157: Please move the Figure to the Results section*

* Although the previous Reviewer asked the Authors to move this figure to Experimental, we agree with the Reviewer on this statement and the Authors have moved back the Figure to Results section as it was previously placed. We thank the Reviewer for this suggestion.

*Line 184: Please state the organization – probably these are levels set by the Serbian Health Ministry or some other institution?*

* The authors have made changes accordingly.

Yours sincerely,

dr Miroslav Pavlović