

The authors thank the editor and reviewer for the valuable and precise comments, in addition to the time they spent in reading the manuscript. All reviewers' comments have been taken into consideration and implemented in the revised manuscript. We summarized our answers to the comments below.

1) In abstract, quantitative information is required, range of flow rate, size of particle, and species...

- The abstract has been updated with additional information regarding the process parameters and the material used.

2) Hydrodynamic interaction is critical and now hard to understand. please mention in the section of theory.

- The chapter 2.1 has been expanded and references have been added.

3) in Theory section, Reynolds number is set at less than 1. how is your experimental situation?

- Thanks for the comment. The particle Reynolds number can actually exceed 1, in the experiments the maximum value is about 50 within the feed channel, in the single gap Re reaches maximum 10. Thus, the calculation via Stokes is not truly valid.
- The drag coefficient is calculated with the Morsi-Alexander equation, which is applicable over a broad range of Re. This means that the absolute particle velocity can be determined analytically by a quadratic function which was added in the chapter 3.2.

4) I understand the CFD calculation and the meaning of the obtained results. Can you show the effect of concentration and limitation of flow rate, based on your speculation. I guess they will be future research.

- The influence of the concentration is not considered in the CFD due to the one-way coupling. This effect is elaborated in the experiments, in section 3.1. In Figure 16, the effect of the concentration for two different concentrations (0.01 and 5 g/L) was showed. Also, in Figure 18 a) the concentration was set to 5 g/L and the swarm effect is visual. In future studies, we intend to increase the concentration in order to provide a more comprehensive description of its influence.
- The limitation of the flow rate is also part of current investigations, whereby the criterion of laminar flow and the change to the transition area is of particular importance