Dear Editor,

We are pleased to submit our manuscript entitled “Evaporation-Triggered and Self-Propelled Directional Transport of Asymmetrically Confined Droplets” to *Journal of Colloid and Interface Science* for consideration as an original research article. In this study, the self-propelled and unidirectional transport of an evaporating droplet confined between two non-parallel hydrophobic surfaces is experimentally, theoretically and numerically investigated. We found that the confined droplet would initially experience asymmetric evaporation and then is self-propelled towards the cusp between the two non-parallel surfaces. We believe that this manuscript is appropriate for publication in *Journal of Colloid and Interface Science* because this study unveils an intrinsic and intriguing self-actuation mechanism which is previously unexplored and thus is generally ignored in the state-of-the-art studies about droplet transport in the confined space or in porous media and further sheds light on a novel approach to colloidal transport and assembly in a passive but decisive fashion. The traits of this work are:

* For the first time, the self-driven and unidirectional motion of an evaporating droplet between two non-parallel hydrophobic surfaces with dihedral angle was observed.
* According to our theoretical analysis and numerical simulation of Surface Evolver, an equilibrium position of distance to the cusp with the lowest Gibbs energy, which results from the balance between the pressure-induced force the normal adhesion force , exists for any asymmetrically confined droplet.
* For an evaporating droplet with a continuously diminishing volume, the instantaneous equilibrium location consecutively shifts towards the cusp following the scaling of , which is recognized as the origin of the unidirectional motion of the evaporating droplet.
* Two modes of droplet motion during evaporation are identified, *i.e*., the creeping mode and the slipping mode, which can be regarded as the self-relaxation process of the evaporating droplet from the stretched regime to the equilibrium regime.
* The passive and decisive actuation mechanism of this non-parallel configuration was experimentally verified by delivering an evaporating droplet containing colloidal particles towards the otherwise inaccessible position (cusp) for their final settlement and assembly within a relatively small footprint.

All authors listed in the paper have contributed to this work. To the best of our knowledge, no conflicts of interest, financial or others exist. We have included acknowledgements and financial information in the manuscript. PDF of manuscript is in correct order upon submission.

This manuscript has not been previously published and is not under consideration in the same or substantially similar form in any other peer review media. All data needed to evaluate the conclusions in the paper are present in the paper and the Supplementary Materials. The prepared manuscript is in compliance with the Ethics in publishing as described in Author Guidelines.

In addition, we suggest the following five reviewers for our submission:

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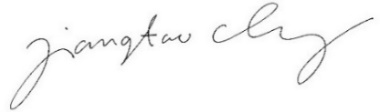
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Yours Sincerely,



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