

Dear Editor of the Review of Scientific Instruments,

We thank you for sending our manuscript (#RSI22-AR-01470R1) to peer review and are glad that it has received a favourable recommendation.

The critical comment by the reviewer 3 was: “I was surprised to not see any discussion of the sharpness, or radius of curvature, of the tip itself. I would have thought that was an important parameter in setting the scale of the electric field produced by these needle electrodes. (but perhaps I am mistaken).”

We agree that a discussion on the suggested topic will make this manuscript stronger. We have made changes accordingly.

In summary, we find that the sharpness and radius of curvature are not critical parameters for typical ion trapping applications. We have added a section in our manuscript (subsection IV D titled “Effect of needle tip geometry on trap potential”) to summarize findings from our numerical simulations.

We have also included more information about our simulations in Supplementary information.

Please note that, we have taken the opportunity to polish the conclusion section without altering any scientific claim.

With these modifications, we hope that you will find our manuscript worthy of publishing in Reviews of Scientific Instruments.

Sincerely,

Nikhil Kotibhaskar

On behalf of the authors