Dear Editor of the Review of Scientific Instruments

Please accept our sincere gratitude for devoting time to review and petition of the manuscript.

In our previous petition we addressed the reviewer 1's comments and provided examples of published work with similar philosophy i.e., improved techniques for fabricating parts of a trapped ion / atomic physics experiment. We regret that the reviewer didn't comment on the parallel we drew between our work and the resonator fabrication work of Siverns et al [1]. However, the only comment from the reviewer was regarding the atomic beam source. We quote:

"I would argue that an atomic beam source is a bone fide scientific apparatus all by itself, and the referenced paper reported a very novel design thereof"

We do agree that the atomic beam source design presented by Ballance et al [2] is novel. However, it is not clear what "bone fide scientific apparatus" means. Atomic and molecular beam sources have been around since the mid-1900s as explained in the classic book by N.F. Ramsey [4]. In any modern experiment these sources are a part of a larger apparatus. In the specific case of ion traps, the atoms from the beam sources are ionized and trapped using trap electrodes like the ones designed in our manuscript. It is therefore not clear how the atomic source is a bone fide apparatus and not the needle electrode.

As per your suggestion, we have suggested names of more than five appropriate potential reviewers who can be invited to review the manuscript. We hope that they can get back soon with their comments.

Sincerely,
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References:

[1] Siverns, J.D., Simkins, L.R., Weidt, S. et al. On the application of radio frequency voltages to ion traps via helical resonators. Appl. Phys. B 107, 921–934 (2012). https://doi.org/10.1007/s00340-011-4837-0

[2] T. G. Ballance, J. F. Goodwin, B. Nichol, L. J. Stephenson, C. J. Ballance, and D. M. Lucas , "A short response time atomic source for trapped ion experiments", Review of Scientific Instruments 89, 053102 (2018) https://doi.org/10.1063/1.5025713

[3] N. F. Ramsey, "Molecular Beams." Oxford Univ. Press, London and New York, 1956.