Justification for Accelerated Publication in Environmental Research Letters

We are submitting electronically a paper entitled: "Universal scaling for the ionization of biological molecules by highly charged ions" by A.M.P. Mendez, C.C. Montanari and J.E. Miraglia. The present manuscript is a follow up of previous work [Mendez *et al.* J. Phys B (2020)]. In this letter, we present a scaling for the ionization cross sections of highly charged ions in biological targets. The scaling was obtained by means of the CDW–SSM calculations for forty ions–molecule systems and tested with the available experimental data. A universal scaling rule is also proposed, which reduced the cross sections with the number of active electrons of the molecule. The universal scaling proved to be valid for a large number of experimental data.

The importance of our scaling rule lays in its predictive capability, which is useful in experimental measurements and multipurpose codes. We believe that our model will appeal to a wide audience, particularly for those interested in biological and complex molecules.