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Dear Journal of Nuclear Materials,

On behalf of my co-authors and myself, I am hereby re-submitting our manuscript, entitled ``*Atomistic calculations of the surface energy as a function of composition and temperature in gamma U-Zr to inform fuel performance modeling*”, for publication in the *Journal of Nuclear Materials*.

We thank the editor and the reviewers for their patience in receiving a resubmission. Developments in LAMMPS allowed for a new implementation of random solid substitutional alloy construction which gave us the ability to precisely prescribe the composition, which removed a significant amount of statistical fluctuation in the dataset. However, this demanded a full rework of all the simulations, which is what has been performed. The conclusions and the magnitude of the key data did not change, which provided us a great deal of confidence in our previous simulations, but being able to provide more statistically significant results in this manuscript was deemed a necessary step that we feel has strengthened the manuscript.

We believe that we have appropriately addressed all suggested revisions and thus have improved the clarity and the quality of the manuscript.

Sincerely,

Benjamin Beeler