The authors responded constructively to all issues and improved the manuscript sufficiently. There are still some minor problems that the author needs to improve.

(1) The method of calculating the defect segregation energy has been explained more clearly in the revised manuscript. However, it is still confuse to the reader how to determine the given distance ‘r’ from the grain boundary that defined for E(def). As addressed in the paper “40 unique simulations were performed for each defect type at each temperature and distance”; this is only a general description. It is recommended to give more information on this point, at least the range of the ‘r’ value that used for testing should be given. In what range can we think the GB segregation has occurred? Will this range change depending on the interface structure?

The computational methods section has been modified accordingly and the refined description is pasted below:

An atom of a given type, either U or Si, is then randomly deleted (vacancy) or inserted (interstitial) from a 4 Å thick slice of the supercell. The center of the 4 Å slice is defined as the r distance in Edef(r). The system is then equilibrated for another 100 ps with the energy of the system averaged over the final 50 ps. The 4 Å slice is then translated along the direction normal (the y-direction in Fig. 1) to the grain boundary in order sample the supercell from the grain boundary up to the defined bulk distance of 30 Å. Visual examination was performed to ensure that defects remain in the 4 Å slice of interest.

(2) It is mentioned in the introduction part “grain boundaries have a significant influence on the physical properties of polycrystalline solids” and “Interatomic potentials have been successfully employed to study grain boundaries”. The authors may also interested in the recent references [Comput. Mater. Sci. 118, (2016) 180-191; Comput. Mater. Sci. 156, (2019) 421-433] which extensively talking about these.

We thank the reviewer for indicating these papers. These references have been included.