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Corrigendum

Corrigendum to "Effects of Ion Beam Irradiation on Nanoscale InO_x Cooper-Pair Insulators"

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The article titled "Effects of Ion Beam Irradiation on Nanoscale InO_x Cooper-Pair Insulators" [1] discusses a similar topic to that of the following article: Lazarević, Đ. R., Vujisić, M. L., Stanković, K. Đ., Dolićanin, E. Ć., & Osmokrović, P. V. (2012). Radiation hardness of indium oxide films in the Cooper-pair insulator state. *Nuclear Technology and Radiation Protection, 27*(1), 40–43 [2]. The authors apologize for not citing this article and not discussing its relationship with their work.

The articles both investigated radiation hardness in the Cooper-pair insulator state, using indium oxide film. The numerical simulation method and the description of this method are the same, that is, the commonly used approach of the Monte Carlo simulation of charged particle transport through matter, as well as some of the wording in the introduction and discussion, but the results of the articles differ.

The thickness of InO_x film was 10/20 nm in the previous work and 5/15 nm in the present work. The previous work in Nucl. Technol. Radiat. used radiation fields of 10 keV boron ions and 50 keV iron ions, while the article in Int. J. Photoenergy built on that work and used beams of 10 keV protons, 10 keV alpha particles, 0.1 MeV iron ions, 0.1 MeV phosphorus ions, 0.1 MeV boron ions, and 0.1 MeV arsenic ions. The linear energy transfer and nonionizing energy loss of the lighter ions differ significantly from those of the heavy boron and iron ions. For the boron and iron ions, additional simulations show that higher energies are more damaging. Notable energy loss to phononic excitations is shown for proton and alpha particle beams in the Int. J. Photoenergy article, as well as a mechanism for a possible influence of energy lost to phonons on insulator properties. The parametric shift shown in Figure 6 in the Int. J. Photoenergy article is similar to Figure 1 in Nucl. Technol. Radiat., but more accurate.

In addition, the following disclosure should be made:

Conflicts of Interest

There is a conflict of interest between the authors of the article and its handling editor since they share the same affiliation and have common publications. This corrigendum is recommended by the journal's Editorial Board members.

References

[1] S. Milosavljević, D. Lazarević, K. Stanković, M. Pejović, and M. Vujisić, "Effects of Ion Beam Irradiation on Nanoscale InO_x Cooper-Pair Insulators," *International Journal of Photoenergy*, vol. 2013, Article ID 236823, 8 pages, 2013.

[2] Đ. R. Lazarević, M. L. Vujisić, K. Đ. Stanković, E. Ć. Dolićanin, and P. V. Osmokrović, "Radiation hardness of indium oxide films in the Cooper-pair insulator state," *Nuclear Technology and Radiation Protection*, vol. 27, no. 1, pp. 40–43, 2012.