



## PhD Thesis Review Report

**Author:** *Ganbaatar Tuvshinsaikhan*

**Thesis Title:** *Investigation of the Geochemical Behaviour and Soil to Food-Chain Transfer of Various Man-Made Radioisotopes*

**Supervisors:** *dr. Tóth-Bodrogi Edit, dr. Király Amin*

Dissertation titled as “Investigation of the Geochemical Behaviour and Soil to Food-Chain Transfer of Various Man-Made Radioisotopes” studies the geochemical behaviour of artificial radionuclides in soils and their transfer into the food chain. The subject is considered very important to the knowledge of environmental radioactivity, the provision of radiological protection, and the keeping of food safety. The research is recognized as singular in that it integrates soil geochemical characterization with transfer factor measurements, thus providing fresh understanding of the mechanisms controlling radionuclide mobility.

The study is well organized, thorough in terms of science, and it comprises a significant, worthy, and valuable, basically, to the field of international radioecology, a contribution of considerable standing. The methodology and experimental design are outlined in detail and are solid, including systematic soil sampling, geochemical characterization, and radioanalytical methods. The results are straightforward and clearly presented, showing strong trends and correlations. The interpretations are in line with the data but would be more robust if a more critical comparison with international datasets was included. The conclusions are consistent with the objectives of the research, however, the wording could be more cautious to reflect the scope of the study.

The language used in text is appropriate for an academic work of its level however some typos occur. Despite some figures being a bit small, tables and figures are usually informative. Referencing is done consistently and quite comprehensively.

The candidate has made a significant and independent contribution to the field and has shown the technical skills, critical thinking, and scientific maturity required for the awarding of a doctoral degree.

*Considering the overall quality of the research and the candidate’s publication activity, I recommend the acceptance of this dissertation.*



Question for the candidate about the presented results:

1. Do you think clean feeding can reduce the radiation contamination levels?
2. Can we use wool as a proxy for Sr contamination?

Budapest, 14<sup>th</sup> December



József Csurgai PhD

