



Alpha, photon and electron multi-coincidence spectroscopy with ANSWERS

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A new adsorption-based technique for the nuclear spectroscopy was introduced in 2020 [1] at the SHE Chemistry department, GSI. In this technique, particles and photons emitted in the radioactive decays of heavy nuclei are measured with large efficiencies by an assembly of Si (R&D project with the Łukasiewicz—Institute of Electron Technology, Warsaw, Poland) and Ge (MIRION) detectors, respectively, which is called ANSWERS (Adsorption-based Nuclear Spectroscopy Without Evaporation Residue Signal).

In this talk the performance of the ANSWERS for the multi-coincidence alpha, photon and electron spectroscopy will be demonstrated on the example of ²¹¹Bi [2]. Also the experimental results from the successful commissioning of the ANSWERS at the gas-filled recoil separator TASCA for the study of the well-known decay of ²⁵³No [3–7] will be presented.

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References

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