



Contribution ID: 239 Contribution code: PSB-31

Type: Poster

## Current status of BINP AMS and MICADAS facilities, working at AMS Golden Valley, Russia

*Wednesday, 23 October 2024 17:15 (20 minutes)*

The radiocarbon laboratory “AMS Golden Valley” was established in 2020 in Novosibirsk, Russia. At the present moment laboratory provides routine  $^{14}\text{C}$  analyses of various samples: collagen, cellulose, humic acids, carbonates from sediments, food soot, methane from seeps,  $\text{CO}_2$  dissolved in water etc. The main focus of the laboratory is to determine the age of archaeological artifacts by radiocarbon dating, some of the work is being carried out with  $^{14}\text{C}$  labels in the area of biomedical application of AMS, in particular to study the penetrating ability of aerosols in the tissues of laboratory mice and the selectivity of oncolytic viruses.

Laboratory is equipped with two accelerator mass spectrometers: BINP (Budker Institute of Nuclear Physics) AMS facility and MICADAS-28. In 2022 AMS Golden Valley passed the Glasgow International Radiocarbon Intercomparison. Current status of the laboratory will be presented. BINP AMS facility is undergoing modernization to improve reliability and performance. MICADAS-28 continues to perform routine measurements of user samples.

### Student Submission

No

**Primary author:** PETROZHITSKIY, Alexey (Budker Institute of Nuclear Physics of SB RAS, Novosibirsk State University, Institute of Archaeology and Ethnography SB RAS)

**Co-authors:** Mrs PARKHOMCHUK, Ekaterina (Novosibirsk State University, Boreskov Institute of Catalysis SB RAS, Institute of Archaeology and Ethnography SB RAS); Mr KONSTANTINOV, Evgeniy (Budker Institute of Nuclear Physics of SB RAS); Mrs KUTNYAKOVA, Lubov (Institute of Archaeology and Ethnography SB RAS); Mr PARKHOMCHUK, Vasily (Budker Institute of Nuclear Physics of SB RAS); Ms SHAKIROVA, Tamara (Budker Institute of Nuclear Physics of SB RAS)

**Presenter:** PETROZHITSKIY, Alexey (Budker Institute of Nuclear Physics of SB RAS, Novosibirsk State University, Institute of Archaeology and Ethnography SB RAS)

**Session Classification:** Poster Session B

**Track Classification:** New and Upgraded Facilities