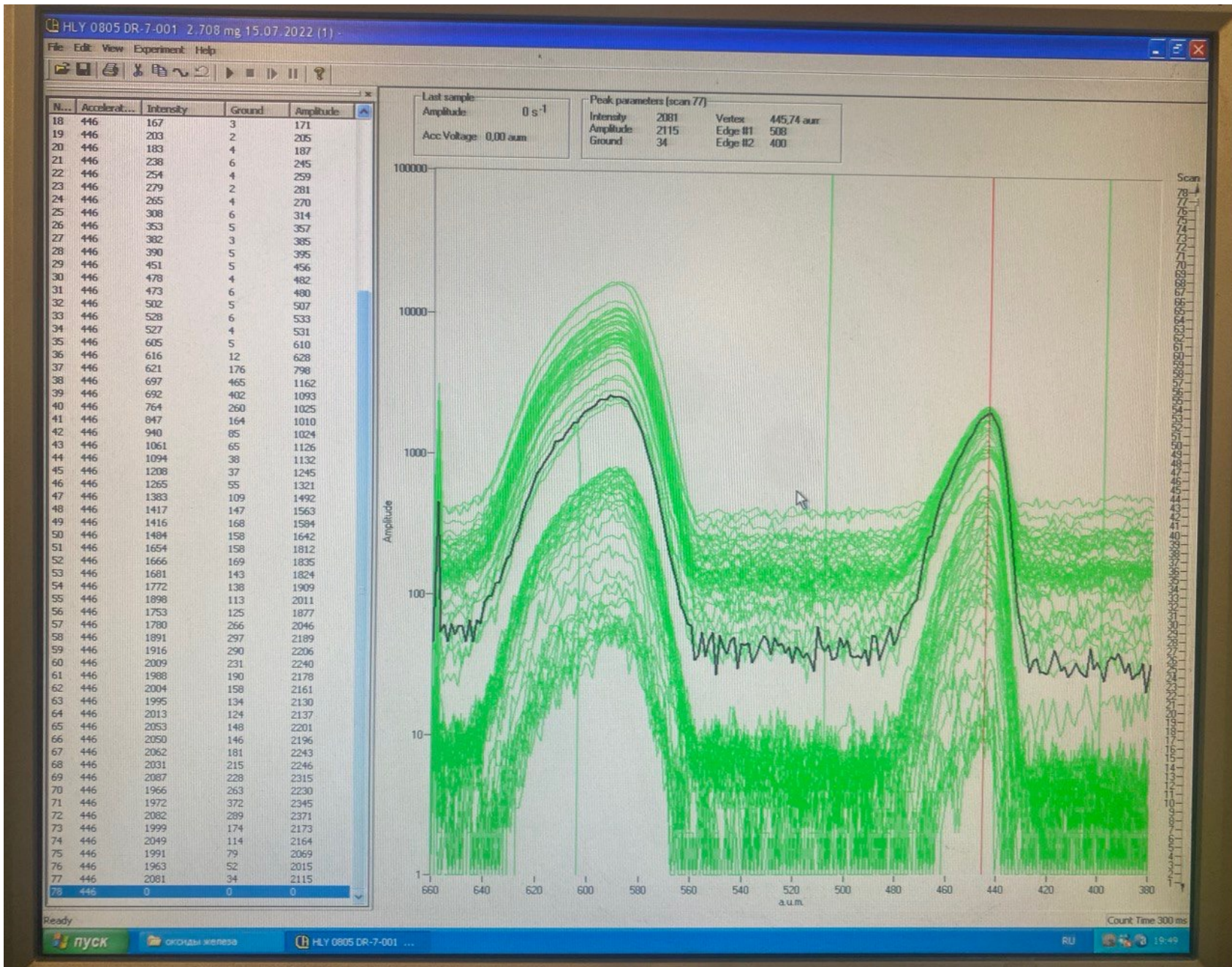


**Fig. 3.** Kinetics of  $^4\text{He}$  release from a native gold sample from the Karalon deposit, Republic of Buryatia. (a) Appearance of the sample after heating up to 850°C (no changes); (b) sample after heating up to 1000°C (incipient melting); and (c) sample after heating up to 1100°C (complete melting and formation of a sphere).

Image from Yakubovich et al., 2014 which shows He release pattern from the native gold. You can see that He content is constantly rising with the exception of the last heating step (1100 C).



Sup 2 Fig 2

## Helium spectra from sample ID 1036

That is how the measurement results look like. The second peak is  $4\text{He}$ . The first one is mass -3 which are mainly hydrogen molecules. The first peak and the background itself reflects the cleanness of the sample (water/trapped gases content).

You can see that He content of the sample was constantly growing till the scan number 60. And then He content was stable for other 10 scans. Heating was off at scan number 72. Last 10 was used to calculate the average He content of the sample.