

Enriched isotopes for low background experiments: Supplier's vision

The increased demand of scientific collaborations for large quantities of enriched isotopes is a growing trend and shall be taken seriously by the global suppliers of isotope products. This trend opens up new opportunities for scientists to bring their experiments to a higher level.

Speaking of the next generation of low-background experiments it is important to focus on 3 key factors impacting success of cooperation between scientific collaborations and suppliers:

1. **Quality of material.** The enriched material must meet strict requirements for high chemical and radioactive purity. Apart from producing top-quality material, the supplier shall have capability to measure and certify it. For example, under clients request it makes possible to measure specific activity of Ra-226 in high-purity germanium detector situated more than 5000 meters under the sea level in the Caucasus Mountains.
2. **The Supplier's expertise and product portfolio.** Production capacities allowing to manufacture up to hundreds of kilos is a distinct advantage as well as extensive expertise in supplying enriched materials of different forms to various customer categories.
3. **Communication with the Supplier.** Before scheduling procurement it's essential for scientific collaborations to build the dialog with the Supplier and to have a clear understanding what quantities of enriched isotopes can be produced within required time. Orders for large scale production shall be placed in advance and this obvious statement shall be obligatory taken into account during preparation phase of the experiments. Close communication between Supplier and scientific collaboration is a key to make material procurement smooth and stressless.

Rosatom State Corporation isotope complex represented by JSC Isotope is the world's largest supplier of enriched isotopes. This year the company has already successfully supplied Mo-100 to AMoRE project and Ge-76 to GERDA experiment.

During the presentation the speaker will pay attention to Rosatom State Corporation capacities in the field of stable isotope production as well as share the experience of cooperating with scientists while being the supplier for international scientific experiments.

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