



RESEARCH AND PRODUCTION ENTERPRISE "AKP"

- Design, manufacturing and installation of γ and β spectrometers of ionizing radiation
- Methods of samples preparation
- Application software
- Warranty and post-warranty service
- Trainings and consulting

BENZENE LINE TO PRODUCE BENZENE USED TO DETERMINE RADIOCARBON



ARCHEOLOGY



GEOLOGY



NUCLEAR IMPACT



SIGNIFICANT SAVING IN TIME AND COSTS OF CHEMICAL REAGENTS AND VACUUM EQUIPMENT

Modern chemical lab equipment for radiocarbon dating - benzene line allows sample material conversion into benzene for at least 3-4 and up to 6-8 samples per day .

MODERN APPROACHES

For sample processing:
 cryogenic trapping and sublimation,
 vacuum pyrolysis,
 capsule technology,
 microliner thermodestruction technology

OPTIMIZED MATERIALS

Combined Anticorrosive Metal Reaction Vessels,
 Vacuum line: stainless steel tubes, Teflon connections
 High Performances Glass reaction vessels
 High performances Teflon Vials

SMALL SAMPLE CONCEPT

Produce a small sample of benzene based on use variable changeable quantity of high productivity catalyst allows minimization of "memory effect"

VACUUM PYROLYSIS FOR THE PRODUCTION OF LITHIUM CARBIDE

Direct chemisorption into a Li alloy of carbonaceous gases produced by the controlled thermo-destruction of organic materials under vacuum conditions

- Applicable for both organic and carbonate samples
- Cheap and high effective
- Up to 2-5 times reduction of time for sample processing cycle
- High chemical yield for Carbon processed
- High purity of carbide resulting
- Allows to analyze even small sample

MICROLINER THERMODESTRUCTION TECHNOLOGY

- Technology is applicable for any kind of sample material
- Highly effectively converts datable Carbon into benzene
- Compatible with hydrolysis system for microsamples
- Simple and highly productive for any kind of sample material

CAPSULE TECHNOLOGY TO PRODUCE LITHIUM CARBIDE

The technology system designed for direct obtaining of acetylene from very small samples of organic matter or carbonates.

- Allows obtaining small benzene sample
- Well applicable for both organic and carbonate samples.
- Allows to prepare few samples in the same process
- Allows operate carbide sample some time later as each sample is hermetic and could be stored

Application of anti-radon module decrease time of sample stabilization before counting which is most important for small samples of benzene

TEFLON VIALS - LONG DURABILITY

- Long durability due to avoiding of use of screwed connection of Teflon parts
- Vials use spline coupling and metal washers
- Better performances: hermetic vials have negligible benzene leakages ever
- Standardized benzene sample volume could be ranged



PROFESSIONAL SOLUTIONS FOR RADIATION CONTROL AND MONITORING

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