TECHNOLOGY

AN OFFER: Benzene line: equipment, technology, SetUp & Staff training

We use conventional method for carbon-14 measurement where benzene is used as optimized media for liquid scintillation counting. We use some base ideas of benzene synthesis for sample preparation. We know some problems of glass benzene lines, like – It is too hard to keep it hermetic large internal volume vacuum line.

Our initial ideas are published [1,2] and all future developments came to our customers included in materials used in Benzene line, and knowledge given in users manual and during of staff training. Our general approach is to optimize volume (diameter and length) of benzene line and use some other material – titanium, Teflon, stainless steel and boro-silicate glass. In addition we could connect ionizing air (ozone) for cleaning of line in case.
As we are producer of benzene line, we produce catalyst for our customers as well. We produce effective catalyst which is reusable and applicable for continuous work. Thus set of equipment offered includes catalyst required for at least two years of intensive work.

Thus our equipment includes:

- **- Metall Reaction Vessels - highly effective and productive.**
- **- Glassware - high performances.**
- **- Teflon Vials - high performances and long durability.**
- **- Vertical ovens working highly effective at 500 or 700 or 800 ^{o}C.**
- **- Catalyst - reusable & highly effective.**

All it allows us to get long duration working cycle for all equipment set.
It is important - one could use benzene line for tritium analyses as it allows to get better counting performances for low level tritium measurement using any of LS spectrometers.
Besides we use modern approaches in sample processing like vacuum pyrolysis, sublimation and criogenic traping.

REFFERENCES

1. Vadim V Skripkin, Nikolai N Kovaliukh. Recent developments in the procedures used at the SSCER Laboratory for the routine preparation of lithium carbide. RADIOCARBON. Vol 40, No 1 (1998)

2. Michael Buzinny&VadimSkripkin. Newly Designed 0.8-ML Teflon® Vial for Micro-volume Radiocarbon Dating.RADIOCARBON. Vol 37, No 2 (1995) PP. 743-747

What more to read? : Teflon vials : Benzene line : Ceramic dating : Teflon vials : Wood pretreatment : : Offer : Benzene line : Benzene line : C14-vial : Vacuum pyrolysis : Benzene Line : Teflon vials : Equipment
Benzene line : Equipment : Technology : Laboratory SetUp : Staff Training

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