

PORTABLE ALPHA SPEC

便携式 α 能谱仪

Model ~ BAM-STAM-3Z (Alpha, Beta, Gamma)

Model ~ BAM-STAM-3ZG (Alpha, Beta, Gamma & Gamma Spectrum)

FEATURES: 特点

- TWO DETECTOR SYSTEM (BAM-STAM-3Z)
- 双探头系统(BAM-STAM-3Z)
 - Alpha Solid State Detector
 - α 固体探测器
 - Gamma Scintillation Detector
 - γ 闪烁探测器
- SEPARATE ISOTOPE MEASUREMENT
- 单个核素测量
 - Pu-238, Pu-239, Am-241 & OTHER ACTINIDES, ALSO Po-210
- COUNTS: WIPES / SMEARS, AIR FILTERS and PLANCHETS
- 计数方式: 擦拭型, 空气过滤器, 圆片式
- PRECISION SAMPLE DRAWER
- 精确样品抽屉
 - REPEATABLE GEOMETRY
 - 位置固定
- RADON REJECTION
- 氡抑制
- LAPTOP & SOFTWARE
- 笔记本电脑&软件

STANDARD: 标准型

- MULTI-CHANNEL ALPHA ANALYZER (MCA) - (BAM-STAM-3Z)
- 多道 α 分析仪-(BAM-STAM-3Z)
- SINGLE-CHANNEL GAMMA ANALYZER (SCA) - (BAM-STAM-3Z)
- 单道 γ 分析仪(BAM-STAM-3Z)

OPTIONAL: THIRD SPECTRUM

选项: 厚晶体 γ 探测器

(DETECTOR FOR BAM-STAM-3ZG)

- MULTI-CHANNEL GAMMA ANALYZER (MCA) - (BAM-STAM-3ZG)
- 多道 γ 分析仪(MCA) - (BAM-STAM-3ZG)



TECHNICAL ASSOCIATES
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DESCRIPTION – STANDARD MODEL ~ BAM-STAM-3Z:

描述-标准型号~ BAM-STAM-3Z:

Pulses from these 3 channels go to counters A, B, and C respectively in the software. The data analyzer and software are provided.

软件中3通道脉冲分别进入到计数器A, B, C, 提供数据分析仪和软件

- Pulses from the Alpha Solid State detector go through an amplifier and Multi -Channel Analyzer (MCA) to select for pulse height. **For Alphas. Regions I & II.**
- 来自 α 固态探测器脉冲进入到放大器和多道分析仪中进行脉冲高度选择, α 兴趣区 I & II
- Pulses from the PGS-3T Thin Crystal NaI(Tl) Gamma Scintillation detector go through an amplifier and Single Channel Analyzer (SCA) to select for pulse height. **For Gammas. Region III**
- 来自 PGS-3T 薄晶体 NaI(Tl) 伽马闪烁探测器脉冲进入到放大器和单道分析仪中进行脉冲高度选择
- Technical Associates uses TAquire software with user settable parameters.
- TA 公司使用 TAquire 软件, 用户可设定参数

PROCEDURE: 过程

- **User** places sample onto the replaceable membrane (provided) in the sample holder.
- 用户将样品放入样品托中可更换的过滤膜上
- **User** slides sample holder between upper solid state Alpha Spec Detector and the lower thin window NaI(Tl) Scintillation Detector.
- 用户将样品托在上层固态 α 探测器和下层薄窗 NaI(Tl) 闪烁探头之间切换。
- Pulses from the Alpha Detector go to a charge sensitive amplifier and into a Multi -Channel Analyzer (MCA) with Regions I & II for low & high Alpha energy.
- α 探测器脉冲通过灵敏电荷放大器进入到多道分析仪兴趣区 I & II 中进行低/高 α 能量测量
- Region III is detected by the Scintillation detector for Gamma emissions.
- 兴趣区 III 使用闪烁探测器测量伽马发射

Typical Energy Ranges for Regions of Interest:

兴趣区典型能量范围:

- Region I:** 5.00 to 5.30 MeV for Pu-239 Alpha.
Region II: 5.30 to 5.60 MeV for Pu-238 and Am-241 Alpha.
Region III: 40-80 KeV for Am-241 Gamma.

SPECIFICATIONS - STANDARD MODEL ~ BAM-STAM-3Z:

规格-标准型号~ BAM-STAM-3Z:



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Alpha Detector:	Solid State Alpha Detector – 50 mm diameter Regions I & II
α 探头:	固态 α 探测器-直径50mm,兴趣区I & II
Resolution:	30 KeV maximum
分辨率:	
Range:	2.5 MeV to 11 MeV
范围	
Sample Holder:	Precision Sample Drawer
样品托	精确样品抽屉
Counting Efficiency:	20% of 2Pi
计数效率:	半角20%
Gamma Membrane:	0.9 mg/cm ² aluminized Mylar or .0005" stainless steel or per user requirement.
γ 过滤膜:	厚度0.9 mg/cm ² 镀铝聚酯膜, 或.0005"不锈钢, 或按客户要求
Gamma Detector:	Model PGS-3T NaI(Tl) Scintillator Region III
γ 探测器:	型号PGS-3T NaI(Tl)闪烁体, 兴趣区III
Crystal Size:	25mm dia. x 1 mm thick NaI(Tl)
晶体大小:	直径25mm x 1 mm厚NaI(Tl)
Electronics for Alpha:	Bias Voltage, PreAmp, Multi-Channel Analyzer (MCA)
α 电子学:	偏压, 前置放大器, 多道分析仪(MCA)
Electronics for Gamma:	Bias Voltage, PreAmp, Single-Channel Analyzer (SCA)
γ 电子学:	偏压, 前置放大器, 单道分析仪(SCA)
Rejection:	Radon & Thoron
抑制:	氡

NOTE: Higher energy Alpha spectrum is used to reject Radon & Thoron Progeny.
Lower portion of Alpha spectrum is used to see isotopes of interest.

注: 高能 α 能谱用来抑制氡子体, 低能部分用来测核素兴趣区

WEIGHT & DIMENSIONS: 重量和尺寸

Instrument: W 14.5" x H 10" x D 20".

仪器:



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Weight: 10 lbs includes Computer, PreAmp, Detectors.

重量: 包括电脑, 前置放大器和探头10磅

SPECIFICATIONS - OPTIONAL MODEL ~ BAM-STAM-3ZG:

规格-选购型号~ BAM-STAM-3ZG:

Gamma Spectrum: BAM-STAM-3ZG

伽马能谱: BAM-STAM-3ZG

Gamma Spectrum Detector: PGS-3L 2" x 2" NaI(Tl) Scintillator

伽马能谱探头:

Multi-Channel Analyzer (MCA): 4,096 Channels

多道分析仪:

Electronics Gamma Spectrum: Bias Voltage, PreAmp

伽马能谱电子学:

Energy Range: 14 KeV to 2,200 KeV

能量范围:



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