QUALITY ASSURANCE DATA SHEET

GEM Series HPGe (High-Purity Germanium) Coaxial Detector System

Model and Serial Numbers

Detector Model No. GEM-10185

Cryostat Configuration SV-GEM

Dewar Model 30

Preamplifier Model 137CP2-2

Preamplifier S/N —

H. V. Filter Model 138

H. V. Filter S/N —

Important Reference Data

Ship Date 12-4-81

Serial No. 21-P801A

When calling Customer Service, always reference this Detector Serial No.

10-11-94 Manual + QAD sent to customer. Detector donated to Michigan State University from C.E. Pf

Cryogenic Information

Dewar Capacity 30 l Static Holding Time 14 DAYS. Detector Cool-Down Time 6 HRS.

Dimensions

Crystal Diameter 42.9 mm

Crystal Length 42.5 mm

End Cap to Crystal 3 mm

Total Active Volume — cc

Absorbing Layers

Aluminum 1.27 mm

Magnesium — mm

Inactive Germanium 700 nm

High Voltage Bias

Recommended Operation Bias, POSITIVE 3500 V

Performance Specifications*

	Warranted	Measured	Amplifier Time Constant
Resolution (FWHM) at 1.33 MeV, ^{60}Co	keV	1.73 keV	6 us
Peak-to-Compton Ratio, ^{60}Co		45.1	6 us
Relative Efficiency at 1.33 MeV, ^{60}Co	%	10.8 %	6 us
Peak Shape (FWTM/FWHM), ^{60}Co		1.85	6 us
Peak Shape (FWFM/FWHM), ^{60}Co		2.59	6 us
Resolution (FWHM) at 122 kev, ^{57}Co	eV	748 eV	

Other

Data Certified By Gallagan Date 10-11-94

*Measured at a nominal rate of 1000 counts/s unless otherwise specified.