

Radium Delayed Coincidence Counter (Scientific Computer Instruments); 8-Channel Calibrations:

System	Efficiency, Ra-223 (cpm/dpm)	Efficiency, Ra-224 (cpm/dpm)	Efficiency, Total (cpm/dpm)
1	0.357	0.492	1.128
2	0.350	0.500	1.151
3	0.360	0.496	1.142
4	0.334	0.461	1.101
5	0.303	0.421	0.978
6	0.347	0.482	1.119
7	0.364	0.505	1.174
8	0.359	0.499	1.158

Minimum detectable activities for this data set average (\pm standard deviation): 5.4 ± 12.9 dpm/100L for Ra-223 and 4.0 ± 18.4 dpm/100L for Ra-224 and Ra-228 from water column samples (CTD, Core-top waters, and Alvin Niskins)

Minimum detectable activities for this data set average (\pm standard deviation): 61 ± 45 dpm/100L for Ra-223 and 39 ± 29 dpm/100L for Ra-224 and Ra-228 from Porewater samples.

Radon Emanation Line; 4-port

Calibration curves:

Port 1: $\text{dpm} = 0.0009\text{cpm}^2 + 0.4389\text{cpm} + 0.8736$

Port 2: $\text{dpm} = 0.0009\text{cpm}^2 + 0.4169\text{cpm} + 1.0583$

Port 3: $\text{dpm} = 0.0004\text{cpm}^2 + 0.5437\text{cpm} + 0.9103$

Port 4: $\text{dpm} = 0.0004\text{cpm}^2 + 0.4676\text{cpm} + 0.9789$

Minimum detectable activities for this data set average (\pm standard deviation): 24.7 ± 49.2 dpm/100L for Ra-226.