

**RSU INF 2021-13**

**WHICH CONTAMINATION MONITOR: GM OR SCINTILLATION  
AND SUPPLIERS (OCTOBER 2021)**

University of Manchester 2021

**University of Manchester  
Radiation Safety Unit**



The University of Manchester

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Radioisotope	Beta (keV)	Gamma (keV)	Monitor	Comments
Chromium-51	-	5(x-ray), <u>320</u>	900 44A/B	
Iron-55	-	5 (EC)	900 44B	
Technitium-99m	-	141	900 44A/B/42	
Cadmium-109	-	22, 25, <u>88</u>	900 44A/B	
Iodine-125	-	27, 31, <u>36</u>	900 44A/B	
Americium-241	-	60	900 44A/B	(dual phosphor)
Californium-252	-	18,43,100		(dual phosphor)
Cobalt-60	318	1173, 1333		
Caesium-137	512	662	900 44A/B/42	
Iodine 131	606	363	900 EP15/EL	
Europium-152	699	344, 1112, 1408		
Lead-210	17, 63	13,47	(900 EP15/EL/E)	(dual phosphor)
Tritium	19	-	None	LSC
Carbon-14	157	-	(900 EP15/EL/E)	LSC (significant self-absorption of the $\beta$ -particle)
Phosphorous-32	1710	-	900 EP15/EL	
Phosphorous-33	249	-	900 EP15/EL	
Sulphur-35	168	-	(900 EP15/EL/E)	
Calcium-45	257	-	900 EP15 900 EP15/EL/EL	
Nickel-63	66	-	(900 EP15/EL/E)	
Technitium-99	294	(90 1%)	900 EP15/EL	
Strontium-90	546, 2284	-	900 EP15/EL	
Uranium-238	2290	15, 50 (Po-210: 803)	900 EP15	(dual phosphor)

radioisotope risk rating				
low				high
Group 5	Group 4	Group 3	Group 2	Group 1

**Mini Instruments type 900 EP15****Mini Instruments type 900 44A****Suppliers**

<http://www.jepbol.com/mini.html#contamination>

[https://www.anythingradioactive.com/index.php?route=product/product&product\\_id=188](https://www.anythingradioactive.com/index.php?route=product/product&product_id=188)

<https://www.perspectiveinstruments.co.uk/html/isotopes.html>

<https://www.thermofisher.com/search/browse/featured/us/en/80013136/Portable+Contamination+Monitors>

<https://lablogic.com/radiation-safety>

<https://www.southernscientific.co.uk/products-by-application/nuclear-industry-radiation-monitoring?source=1138>

**Rugged monitors for aggressive environments**

<https://www.tracerco.com/products/radiation-monitors/>