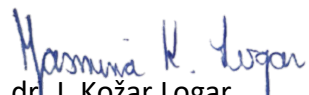




CHARACTERISTIC LIMITS FOR METHODS IN LABORATORY FOR LIQUID SCINTILLATION SPECTROMETRY

radionuclide	method	procedure	material	typical sample mass		typical counting time	detection limit	
					unit		min	unit
H-3	direct method	LSC-DN-07	urine	8	g	1000	7	Bq/kg or Bq/L
H-3	direct method	LSC-DN-07	water	8	g	1000	0,77	Bq/kg or Bq/L
H-3	after enrichment	LSC-DN-07	water	500	g	1000	24	Bq/m ³
gross alpha emitters	direct method	LSC-DN-10	water	8	g	1000	0,042	Bq/kg or Bq/L
gross beta emitters	direct method	LSC-DN-10	water	8	g	1000	0,44	Bq/kg or Bq/L
gross alpha emitters	after preconcentration	LSC-DN-10	water	100	g	1000	0,0015	Bq/kg or Bq/L
gross beta emitters	after preconcentration	LSC-DN-10	water	100	g	1000	0,0105	Bq/kg or Bq/L
C-14	direct method	LSC-DN-13	water		g	1000	25	Bq/kg or Bq/L
C-14	direct method	LSC-DN-13	fuel	10	ml	1000	0,48	% biocomponent
C-14	absorption CO ₂	LSC-DN-13	liquid	20	g	1000	0,0012	Bq/g carbon (Bq/gC)
C-14	absorption CO ₂	LSC-DN-13	gas		g	1000	0,0012	Bq/g carbon (Bq/gC)
C-14	absorption CO ₂	LSC-DN-13	solid matter	20	g	1000	0,0012	Bq/g carbon (Bq/gC)

Characteristic limits are calculated according to ISO 11929 and are given for optimal laboratory conditions and the usual settings of the measurement parameters. Characteristic limits can be changed by changing the counting time, the initial mass of the sample, the counting efficiency and the matrix of the measurand. Contact the laboratory for more detailed information.


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