

List of testing methods under flexible scope Analytical Service G.II.8

Updated: 11/12/2023

Annex to the Accreditation Certificate D-PL-19281-01-00 according to DIN EN ISO/IEC 17025:2018

Scope valid from: **19/10/2023**

Reference	Version	Title	Issued	Chapter
IMS-JRC.G-C1.1-WIN-0007	v7.1	Dissolution and dilution of uranium oxides and fluorides prior to analysis	10/01/2023	1
IMS-JRC.G-C1.1-WIN-0018	v5.0	Separation of Uranium, Plutonium from Fission Products prior to MS Measurements	30/08/2022	1
IMS-JRC.G-C1.1-WIN-0030	v6.1	Preparation of SIMS samples using vacuum deposition for Analysis of Environmental U Particles by SIMS	20/01/2022	1
IMS-JRC.G-C1.1-WIN-0022	v6.1	Dissolution and dilution of plutonium oxides prior to Analysis	12/12/2022	1
IMS-JRC.G-C1.1-WIN-0017	v4.0	Preparation fo standards and spikes - Ampoules sealing by LASER	17/01/2022	1
IMS-JRC.G-C1.1-WIN-0050	v2.1	Spiking Procedure for Isotope Dilution Mass Spectrometry Measurement	18/01/2022	1
IMS-JRC.G-C1.1-WIN-0051	v2.1	REE separation from U solution for ICP-MS analysis	03/05/2022	1
IMS-JRC.G-C1.1-WIN-0011	v2.1	Determination of Uranium Isotopic Content by Thermal Ionisation Mass Spectrometry using the Modified Total Evaporation Technique (MTE)	07/01/2022	2
IMS-JRC.G-C1.1-WIN-0023	v4.1	Uranium particle analysis by LG-SIMS	20/01/2022	2
IMS-JRC.G-C1.1-WIN-0021	v6.1	Determination of uranium and plutonium isotopic content and concentration in nitric acid solutions by Thermal Ionization Mass Spectrometry using the total evaporation technique	13/01/2022	2
IMS-JRC.G-C1.1-WIN-0088	v2.0	Single element analysis at high precision by ICP-MS	27/01/2023	3

WI0411/S5/	R1	Isotopic composition of single elements by ICP-MS	13/11/2013	3
IMS-JRC.G-C1.1-WIN-0028	v2.0	Determination of impurities in uranium bearing materials by inductively coupled plasma mass spectrometry (ICP-MS)	16/01/2023	3
IMS-JRC.G-C1.1-WIN-0045	v7.1	Density measurement of Solutions	26/01/2023	4
IMS-JRC.G-C1.1-WIN-0010	v3.2	Measurement of U isotope abundances by High Resolution Gamma Spectrometry	24/04/2023	5
IMS-JRC.G-C1.1-WIN-0010	v3.1	Measurement of U isotope abundances by High Resolution Gamma Spectrometry	30/11/2021	5
IMS-JRC.G-C1.1-WIN-0012	v2.0	Measuring Pu Concentration in MOX pellets by the combined neutron-gamma counter	12/01/2023	5
IMS-JRC.G-C1.1-WIN-0015	v3.0	Calorimetric measurements for Pu and/of AM mass content determination	25/05/2023	5
	v2.1	Calorimetric measurements for Pu and/of AM mass content determination	30/11/2022	5
IMS-JRC.G-C1.1-WIN-0016	v3.1	Preparation of AGS waste water sample for HRGS & ICPMS, and measurement of pH, solid matter and $^{238}\text{Pu}/(^{239}+^{240})\text{Pu}$ by alpha spectrometry	09/03/2023	5
	v3.0	Preparation of AGS waste water sample for HRGS & ICPMS, and measurement of pH, solid matter and $^{238}\text{Pu}/(^{239}+^{240})\text{Pu}$ by alpha spectrometry	11/05/2020	5
IMS-JRC.G-C1.1-WIN-0019	v4.1	Measurement of ^{238}Pu ($^{239}+^{240})\text{Pu}$ ratio Using Alpha Spectrometry	03/05/2023	5
	v4.0	Measurement of ^{238}Pu ($^{239}+^{240})\text{Pu}$ ratio Using Alpha Spectrometry	04/07/2022	5
IMS-JRC.G-C1.1-WIN-0029	v4.0	Identification of radionuclides and activities in waste water samples by HRGS	16/06/2021	5
IMS-JRC.G-C1.1-WIN-0044	v5.1	Determination of uranium concentration and ^{235}U enrichment using COMPUCEA	30/01/2023	5

IMS-JRC.G-C1.1-WIN-0054	v4.1	Measurement of U and Pu Concentrations in Solution by Hybrid K-Edge/XRF Densitometry	13/03/2023	5
	v4.0	Measurement of U and Pu Concentrations in Solution by Hybrid K-Edge/XRF Densitometry	17/06/2020	5
IMS-JRC.G-C1.1-WIN-0052	v4.1	Measurement of Pu Isotope Abundances and Am-241 to Pu Weight ratio by High Resolution Gamma Spectrometry	30/11/2021	5

Abbreviations used:

DIN	German Institute for Standardisation e.V.
EN	European standard
IEC	International Electrotechnical Commission
ISO	International Organization for Standardization
IMS-JRC.G-C1.1-WIN-XXXX	Work instruction of European Commission, , Unit G.II.8 Nuclear Safeguards and Security, Analytical Service
WI	Work instruction of European Commission, Unit G.II.8 Nuclear Safeguards and Security, Analytical Service