

Electronic Supplementary Material to manuscript JA-ART-10-2020-00040

Table 1: Dataset of the ID-TIMS measurement results at JRC-Geel G.2 for the uranium mass content (in pg) in the IRMM-023P particles during feasibility study.

	m U [pg]	Unc (k=2)
IRMM-023-0210	2.68	0.10
IRMM-023-2309	1.88	0.10
IRMM-023-2609	2.53	0.09
IRMM-023-2009	2.81	0.10
IRMM-023-0310	2.98	0.11
IRMM-023-2209	3.62	0.12
IRMM-023-0410	2.87	0.11
IRMM-023-2709	4.80	0.18
IDMS mean value	2.88	0.10
VOAG expected value	3.14	0.38

Table 2: Dataset of the 31 ID-TIMS measurement results at JRC-Geel G.2 for the uranium amount content (in fmol) and the uranium mass (in pg) per particle in IRMM-2329P. The conversion from uranium amount to mass content was done using the certified molar mass of 237.950848(34) g·mol⁻¹ in the IRMM-2329P particles.

	nU [fmol]	Unc (k=1)	mU [pg]	Unc (k=1)
Turret 1				
m_T1T016F1	15.71	0.03	3.74	0.006
m_T1T016F2	17.55	0.02	4.18	0.005
m_T1T016F4	18.12	0.02	4.31	0.006
m_T1T016F5	13.97	0.03	3.32	0.007
m_T1T051F2	14.85	0.02	3.53	0.004
m_T1T051F3	15.22	0.03	3.62	0.007
m_T1T051F4	15.49	0.03	3.69	0.008
m_T1T051F5	14.25	0.04	3.39	0.009
m_T1T078F1	16.66	0.01	3.96	0.003
m_T1T078F2	16.92	0.03	4.02	0.007
m_T1T078F4	16.26	0.02	3.87	0.005
m_T1T078F5	16.77	0.03	3.99	0.006
Turret 2				
m_T2T020F1	13.78	0.05	3.28	0.011
m_T2T069F4	16.71	0.13	3.98	0.030
m_T2T102F1	15.05	0.10	3.58	0.025
m_T2T102F3	14.23	0.04	3.39	0.009
Turret 3				
m_T3T020F1	13.71	0.03	3.26	0.008
m_T3T020F2	14.07	0.03	3.35	0.007
m_T3T020F3	12.12	0.01	2.88	0.003
m_T3T020F4	12.65	0.03	3.01	0.007
m_T3T020F5	13.11	0.04	3.12	0.009
m_T3T069F1	14.39	0.04	3.42	0.008
m_T3T069F2	15.07	0.03	3.59	0.006
m_T3T069F3	15.79	0.03	3.76	0.007
m_T3T069F4	15.17	0.04	3.61	0.009
m_T3T069F5	14.94	0.03	3.55	0.007
m_T3T102F1	15.51	0.04	3.69	0.010
m_T3T102F2	14.90	0.02	3.54	0.006
m_T3T102F3	14.67	0.03	3.49	0.007
m_T3T102F4	14.74	0.02	3.51	0.006
m_T3T102F5	14.37	0.02	3.42	0.006
Mean values	15.052	0.008	3.582	0.002