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Komatiite Nano-Pellet, pressed pellet diameter 20 mm (Standard for solid-state microanalysis)

Art. ID	MY-OKUM-NP-LA-ICP-MS-LIBS-20MM
Unit	each (pressed pellet)
Deliverydetails	No Dangerous Good /not restricted

Description

Pellet for LA-ICP-MS and LIBS application /// The principle behind LA-ICP-MS (Laser Ablation - Inductively Coupled Plasma - Mass Spectrometry) involves a laser beam removing (ablating) material from a sample and analysing its chemical composition in a mass spectrometer /// LIBS (Laser-Induced Breakdown Spectroscopy) uses a laser beam to interact with the sample. Due to the extreme heat of the laser (10,000 K and more) a plasma is formed. A plasma is a cloud of ions (charged atoms) and electrons (negatively charged particles). When this plasma collapses it emits light. Light is a mixture of different wavelengths. This light is then transferred through a fiberoptic cable to a spectrometer, which can precisely split the light into its respective wavelengths. The working principle of the LIBS-spectrometer is similar to a prism as it disperses the incomming light. Each element has several characteristic wavelengths. A detector is able to attribute an intensity to each of them.

Text/Information	Analyte/Parameter	CAS number	Concentration/Value	Unit	Method	Source
	Na2O		1,136 ± 0,022	g/100g		
	MgO	[1309-48-4]	21,29 ± 0,1	g/100g		
	Al2O3		7,97 ± 0,04	g/100g		
	SiO2		44,14 ± 0,14	g/100g		
	P2O5		0,0266 ± 0,0023	g/100g		
	K2O		0,044 ± 0,002	g/100g		
	CaO		7,85 ± 0,06	g/100g		
	TiO2		0,38 ± 0,004	g/100g		
	MnO		0,1813 ± 0,0027	g/100g		
	Fe2O3(T)		11,81 ± 0,05	g/100g		
	Scandium (Sc)	[7440-20-2]	27,9 ± 1,5	µg/g		
	Vanadium (V)	[7440-62-2]	167,8 ± 3,1	µg/g		
	Chromium (Cr)	[7440-47-3]	2460 ± 31	µg/g		
	Cobalt (Co)	[7440-48-4]	88,9 ± 1,5	µg/g		
	Nickel (Ni)	[7440-02-0]	886 ± 10	µg/g		
	Copper (Cu)	[7440-50-8]	43,5 ± 1,2	µg/g		
	Zinc (Zn)	[7440-66-6]	61,2 ± 1,9	µg/g		
	Gallium (Ga)	[7440-55-3]	8,79 ± 0,16	µg/g		
	Rubidium (Rb)	[7440-17-7]	0,96 ± 0,06	µg/g		
	Strontium (Sr)	[7440-24-6]	16,1 ± 1	µg/g		
	Yttrium (Y)	[7440-65-5]	9,08 ± 0,29	µg/g		
	Zirconium (Zr)	[7440-67-7]	17 ± 1,4	µg/g		
	Niobium (Nb)	[7440-03-1]	0,37 ± 0,06	µg/g		

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	Caesium (Cs)	[7440-46-2]	0,184 ± 0,003	µg/g
	Lanthanum (La)	[7439-91-0]	0,412 ± 0,017	µg/g
	Cerium (Ce)	[7440-45-1]	1,27 ± 0,03	µg/g
	Praseodymium (Pr)	[7440-10-0]	0,235 ± 0,008	µg/g
	Neodymium (Nd)	[7440-00-8]	1,494 ± 0,06	µg/g
	Samarium (Sm)	[7440-19-9]	0,715 ± 0,011	µg/g
	Europium (Eu)	[7440-53-1]	0,3 ± 0,007	µg/g
	Dysprosium (Dy)	[7429-91-6]	1,61 ± 0,04	µg/g
	Holmium (Ho)	[7440-60-0]	0,355 ± 0,009	µg/g
	Erbium (Er)	[7440-52-0]	1,041 ± 0,014	µg/g
	Ytterbium (Yb)	[7440-64-4]	1,009 ± 0,023	µg/g
	Lutetium (Lu)	[7439-94-3]	0,148 ± 0,005	µg/g
	Hafnium (Hf)	[7440-58-6]	0,551 ± 0,023	µg/g
	Tantalum (Ta)	[7440-25-7]	0,0264 ± 0,0038	µg/g
	Thorium (Th)	[7440-29-1]	0,031 ± 0,004	µg/g