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

Art. ID	MY-W-2a-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		2,196 ± 0,028	g/100g		
	MgO	[1309-48-4]	6,431 ± 0,045	g/100g		
	Al2O3		15,38 ± 0,09	g/100g		
	SiO2		52,57 ± 0,32	g/100g		
	P2O5		0,1362 ± 0,0059	g/100g		
	K2O		0,6242 ± 0,0076	g/100g		
	CaO		10,91 ± 0,03	g/100g		
	TiO2		1,064 ± 0,01	g/100g		
	MnO		0,1658 ± 0,0025	g/100g		
	Fe2O3(T)		10,8 ± 0,05	g/100g		
	Lithium (Li)	[7439-93-2]	9,21 ± 0,19	µg/g		
	Beryllium (Be)	[7440-41-7]	0,672 ± 0,048	µg/g		
	Scandium (Sc)	[7440-20-2]	35,86 ± 0,38	µg/g		
	Vanadium (V)	[7440-62-2]	265,8 ± 2,9	µg/g		
	Chromium (Cr)	[7440-47-3]	92 ± 1,6	µg/g		
	Cobalt (Co)	[7440-48-4]	44,37 ± 0,65	µg/g		
	Nickel (Ni)	[7440-02-0]	72 ± 1	µg/g		
	Copper (Cu)	[7440-50-8]	105,9 ± 1,5	µg/g		
	Zinc (Zn)	[7440-66-6]	77,7 ± 1,6	µg/g		
	Gallium (Ga)	[7440-55-3]	17,88 ± 0,31	µg/g		
	Germanium (Ge)	[7440-56-4]	1,589 ± 0,089	µg/g		
	Arsenic (As)	[7440-38-2]	1,07 ± 0,16	µg/g		
	Rubidium (Rb)	[7440-17-7]	20,23 ± 0,27	µg/g		

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	Strontium (Sr)	[7440-24-6]	195,4 ± 1,6	µg/g
	Yttrium (Y)	[7440-65-5]	21,82 ± 0,33	µg/g
	Zirconium (Zr)	[7440-67-7]	93,3 ± 1,4	µg/g
	Niobium (Nb)	[7440-03-1]	7,51 ± 0,15	µg/g
	Molybdenum (Mo)	[7439-98-7]	0,465 ± 0,03	µg/g
	Cadmium (Cd)	[7440-43-9]	0,074 ± 0,014	µg/g
	Tin (Sn)	[7440-31-5]	1,92 ± 0,12	µg/g
	Antimony (Sb)	[7440-36-0]	0,809 ± 0,069	µg/g
	Caesium (Cs)	[7440-46-2]	0,915 ± 0,016	µg/g
	Barium (Ba)	[7440-39-3]	172,8 ± 1,9	µg/g
	Lanthanum (La)	[7439-91-0]	10,63 ± 0,12	µg/g
	Cerium (Ce)	[7440-45-1]	23,21 ± 0,17	µg/g
	Praseodymium (Pr)	[7440-10-0]	3,018 ± 0,033	µg/g
	Neodymium (Nd)	[7440-00-8]	13,09 ± 0,12	µg/g
	Samarium (Sm)	[7440-19-9]	3,3 ± 0,13	µg/g
	Europium (Eu)	[7440-53-1]	1,091 ± 0,011	µg/g
	Gadolinium (Gd)	[7440-54-2]	3,713 ± 0,039	µg/g
	Terbium (Tb)	[7440-27-9]	0,627 ± 0,0082	µg/g
	Dysprosium (Dy)	[7429-91-6]	3,806 ± 0,029	µg/g
	Holmium (Ho)	[7440-60-0]	0,7908 ± 0,0061	µg/g
	Erbium (Er)	[7440-52-0]	2,208 ± 0,025	µg/g
	Thulium (Tm)	[7440-30-4]	0,3315 ± 0,0064	µg/g
	Ytterbium (Yb)	[7440-64-4]	2,054 ± 0,016	µg/g
	Lutetium (Lu)	[7439-94-3]	0,309 ± 0,0034	µg/g
	Hafnium (Hf)	[7440-58-6]	2,444 ± 0,041	µg/g
	Tantalum (Ta)	[7440-25-7]	0,489 ± 0,014	µg/g
	Thallium (Tl)	[7440-28-0]	0,104 ± 0,013	µg/g
	Lead (Pb)	[7439-92-1]	7,83 ± 0,19	µg/g
	Thorium (Th)	[7440-29-1]	2,179 ± 0,031	µg/g
	Uranium (U)	[7440-61-1]	0,5048 ± 0,007	µg/g