

FOUR ACID DIGESTION MULTI-ELEMENT ANALYSIS

Four acid digestion offers a "near total" dissolution of almost all minerals species, targeting silicates not dissolved in less aggressive aqua regia digests. Carefully staged digestion steps minimise losses due to volatilisation of some elements.

Highly resistant refractory minerals such as zircon, cassiterite, columbite-tantalite, ilmenite, xenotime rutile, barite and wolframite will require a fusion digestion to guarantee complete dissolution.

Packages range from basic ICP-OES only suites through to a comprehensive element list utilising both ICP-OES and ICP-MS for ultra-trace levels. Individual elements are available on request.

Four Acid 33 Element Package

ELEMENT	RANGE PPM	ELEMENT	RANGE PPM	ELEMENT	RANGE PPM
Ag	0.5 - 500	Fe	100 - 50%	S	50 - 10%
Al	50 - 15%	K	20 - 10%	Sb	5 - 1%
As	10 - 1%	La	20 - 5000	Sc	1 - 5000
Ba	2 - 5000	Li	1 - 5000	Sn	5 - 2000
Bi	5 - 1%	Mg	20 - 40%	Sr	1 - 1%
Ca	50 - 40%	Mn	1 - 5%	Te	5 - 2000
Cd	0.5 - 2000	Mo	2 - 1%	Ti	5 - 2%
Ce	20 - 1%	Na	20 - 10%	Tl	10 - 2000
Co	1 - 2%	Ni	1 - 2%	V	1 - 2%
Cr	5 - 2%	P	50 - 5%	W	5 - 2000
Cu	1 - 2%	Pb	5 - 1%	Zn	1 - 2%
4A/OE33				\$23.00	

Four Acid 48 Element Package

ELEMENT	RANGE PPM		ELEMENT	RANGE PPM		ELEMENT	RANGE PPM	
Ag	0.05	- 500	Hf	0.05	- 2000	Sb	0.05	- 1%
Al	50	- 15%	In	0.01	- 2000	Sc	0.1	- 5000
As	0.5	- 1%	K	20	- 10%	Se	0.5	- 1%
Ba	0.1	- 5000	La	0.01	- 5000	Sn	0.1	- 2000
Be	0.05	- 2000	Li	0.1	- 5000	Sr	0.05	- 1%
Bi	0.01	- 1%	Mg	20	- 40%	Ta	0.01	- 2000
Ca	50	- 40%	Mn	1	- 5%	Te	0.2	- 2000
Cd	0.02	- 2000	Mo	0.1	- 1%	Th	0.01	- 5000
Ce	0.01	- 1%	Na	20	- 10%	Ti	5	- 2%
Co	0.1	- 2%	Nb	0.05	- 2000	Tl	0.02	- 2000
Cr	1	- 2%	Ni	0.5	- 2%	U	0.01	- 1%
Cs	0.05	- 2000	P	50	- 5%	V	1	- 2%
Cu	0.5	- 2%	Pb	0.5	- 1%	W	0.1	- 2000
Fe	100	- 50%	Rb	0.05	- 2000	Y	0.05	- 2000
Ga	0.05	- 2000	Re	0.002	- 2000	Zn	1	- 2%
Ge	0.1	- 2000	S	500 - 10% (50 - 10%*)		Zr	0.1	- 2000
				4A/MS48				\$36.00
				4A/OM48				\$40.00
Low level S 50ppm option*								

Rare Earth 12 Elements Add On

Rare earth elements are available as a supplementary package.

ELEMENT	RANGE PPM	ELEMENT	RANGE PPM	ELEMENT	RANGE PPM
Pr	0.01 - 5000	Gd	0.01 - 2000	Er	0.01 - 2000
Nd	0.01 - 5000	Tb	0.01 - 2000	Tm	0.01 - 2000
Sm	0.01 - 5000	Dy	0.01 - 2000	Yb	0.01 - 2000
Eu	0.01 - 2000	Ho	0.01 - 2000	Lu	0.01 - 2000
4A/MS48R or 4A/OM48R				\$9.00	

Four Acid Digest Individual Elements

A selection of individual elements is offered to enable suites to be customised to suit your specific needs, or where only a few elements are required.

DESCRIPTION	CODE	PRICE
4 acid digestion	/ ICP first element	\$15.50
	/ secondary instrument first element	\$7.50
	/ per additional element	\$0.75