

ARL PERFORM'X Sequential XRF spectrometer

ALUMINA as fused beads

Limits of Detection

	Typical practical Limit of detection (3 sigma)	Guaranteed Limit of detection (3 sigma)
Element	ppm	ppm
	100 sec. counting time	100 sec. counting time
Fe ₂ O ₃	1.8	3
SiO ₂	15	25
TiO ₂	1.2	3
CaO	2.7	5
Na ₂ O	62	100
ZnO	1.2	3
Cr ₂ O ₃	1.3	3
MnO	1.2	3
Ga ₂ O ₅	0.9	2
ZrO ₂	1.3	3
V ₂ O ₅	1.8	3

Alumina samples prepared as fused beads 1.5 gr sample and 6 gr flux

Flux is 65% Lithium Tetraborate and 35% Lithium Metaborate

X-ray tube conditions: 50kV-80mA