

S4 EXPLORER

CL IN CEMENT USING THE S4 EXPLORER

A Cl-free Cement was blended with NaCl to demonstrate the capabilities of the S4 EXPLORER for the detection of Cl in Cement.

One cement type was blended with different amounts of NaCl. The samples were prepared

using a swing mill (60s) and then pressed into aluminium cups of 30 mm diameter.

Measurements were made using the Ge crystal and a measuring time of 40 sec with one Background position.

Standard Name	Chemical Concentration	XRF concentration	Absolute deviation	Relative deviation	LLD (ppm)
Blank	Trace	0.0049	0.0049		2.5
Bcir17	1.992	1.9903	-0.0017	-0.084	6.8
Bcir16	0.494	0.5007	0.0067	1.35	4.2
Bcir15	0.036	0.0307	-0.0053	-17.25	2.6
Bcir14	0.024	0.0208	-0.0032	-13.39	2.6

LLD (100s) was calculated to be 3 ppm

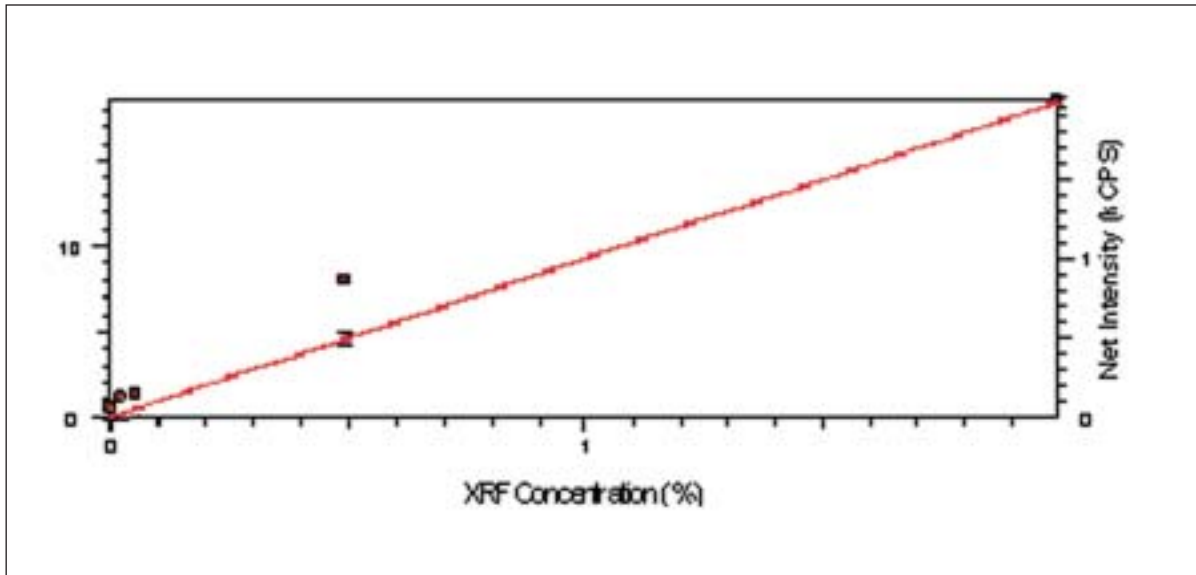


Fig. 1 – Calibration curve of Intensity versus Concentration for Cl in blended cement.

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