

TRACER 5i/5g, S1 TITAN 800/600, CTX 800/600
 Filter and dust wipe calibration (P/N: 730.0175)



Filter and dust wipe	Spot	Cl	Cr	Cu	Zn	Ga	Pb	As	Se
Calibration range [ug/cm ²]	8/5 mm	0 - 15	0 - 84	0 - 113	0 - 40	0 - 33	0 - 3530	0 - 57	0 - 41
LOD in pure filter [ug/cm ²]		10	2	5	1	2	2	1	1

Filter and dust wipe	Spot	Ag	Cd	Sn	Sb	Te	Ba	Hg	Tl
Calibration range [ug/cm ²]	8/5 mm	0 - 87	0 - 59	0 - 98	0 - 98	0 - 64	0 - 67	0 - 43	0 - 84
LOD in pure filter [ug/cm ²]		15	15	40	45	40	40	1	2

Filter and dust wipe calibration: This calibration is intended for elemental analysis of heavy metals in filter or wipe material. LODs are reported for a single sheet of cellulose based filter or wipe material

Calibration range: Concentration range covered by reference samples in the calibration of the application. In practice, the minimum concentration that can be reliably analyzed is determined by Limit of Quantification (LOQ).

Limit of Detection (LOD): The smallest concentration which can be detected in ideal conditions.

- a) In this document LOD is specified for a given matrix in three sigma 99.7% confidence level (3 sigma); 120 sec analysis time
- b) Individual elemental LOD's improve as a function of the square root of the analysis time.

Limit of Quantification (LOQ): The smallest concentration which can be reliably analyzed in ideal conditions is 3.3 times LOD (10 sigma).

Actual LOD and LOQ depends on several factors such as matrix interferences, overlapping elements, level of statistical confidence and testing time. Measurement of concentration close to the low calibration range requires typically long measurement time > 60s. Note that listed LOD's are typical values and the actual LOD's of individual instruments may vary.

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