



MXRF Innovative Technology

JP500 is powered by Monochromatic X-ray Fluorescence (MXRF), an elemental-analysis technique offering enhanced detection performance over traditional Energy-Dispersive X-ray Fluorescence (EDXRF). Monochromating and focusing optics enable a significantly higher signal-to-background ratio.

300s Limits of Detection (ppm) — Water Matrix

	P	S	Cl	Cr	Mn	Fe	Ni	Cu	Zn	As	Pb	Sn
JP500	70	30	15	0.2	0.15	0.1	0.04	0.04	0.03	0.025	0.03	1

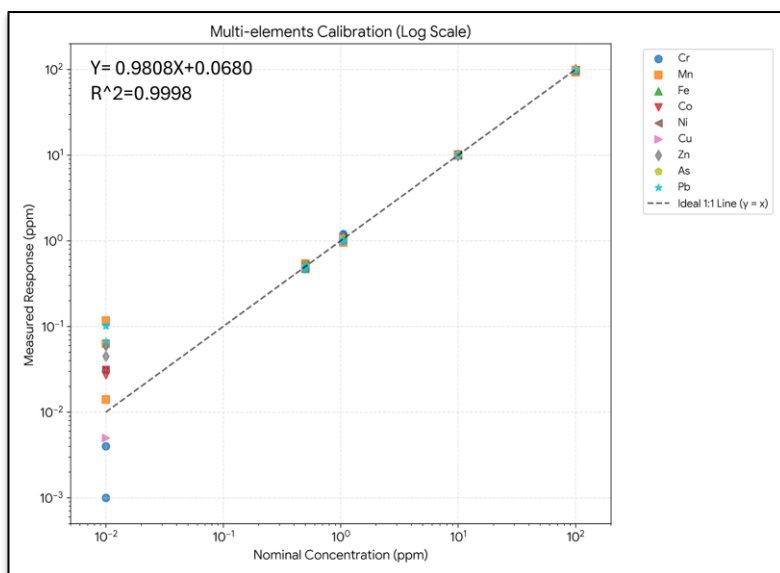
Plug & Play Workflow

- 01 Turn on the instrument
- 02 Check a QC standard
- 03 Draw the water sample and inject into a disposable cup
- 04 Place into the analyzer and get results in 1-2 minutes



Sample preparation Kit

Multi-elements Calibration



JP500 provides revolutionary aspects for heavy metals analysis in wastewater for Cr, Fe, Co, Ni, Cu, Zn, As, and Pb in the ranges of 0.05ppm to high levels.

Precision & Accuracy

Repeatability — 1.05 ppm Water Standard

	Cr	Mn	Fe	Co	Ni	Cu	Zn	As	Se	Pb
1	1.039	1.050	1.062	1.074	1.074	1.074	1.064	1.061	1.104	1.039
2	1.039	1.050	1.062	1.074	1.074	1.074	1.064	1.061	1.104	1.039
3	1.174	0.962	1.047	1.042	1.053	0.970	1.073	1.074	1.091	0.972
4	1.174	0.962	1.047	1.042	1.053	0.970	1.073	1.074	1.091	0.972
5	1.196	1.015	1.061	1.049	1.080	1.011	1.045	1.037	1.112	1.018
6	1.196	1.015	1.061	1.049	1.080	1.011	1.045	1.037	1.112	1.018
7	1.329	0.975	1.039	1.043	1.061	1.041	1.092	1.051	1.112	1.026
8	1.121	1.074	1.057	1.035	1.067	1.062	1.105	1.059	1.091	1.012
9	1.124	0.982	1.016	1.086	1.062	1.048	1.085	1.051	1.086	1.019
10	1.272	0.992	1.122	1.079	1.052	1.087	1.092	1.042	1.086	1.054
Average	1.166	1.008	1.058	1.057	1.066	1.035	1.074	1.055	1.099	1.017
SD	0.092	0.040	0.027	0.019	0.011	0.042	0.020	0.013	0.011	0.027
RSD	7.88%	3.94%	2.54%	1.77%	1.03%	4.09%	1.88%	1.27%	1.01%	2.64%

Repeatability — 0.5 ppm Water Standard

	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	As	Se	Sr	Tl	Pb
1	0.456	0.346	0.562	0.440	0.556	0.487	0.493	0.511	0.512	0.495	0.547	0.522	0.470
2	0.594	0.506	0.535	0.459	0.459	0.483	0.547	0.518	0.525	0.470	0.535	0.526	0.456
3	0.308	0.547	0.541	0.578	0.469	0.483	0.523	0.506	0.503	0.503	0.512	0.517	0.458
4	0.402	0.584	0.376	0.550	0.558	0.478	0.529	0.509	0.500	0.486	0.522	0.525	0.496
5	0.696	0.447	0.606	0.547	0.476	0.470	0.537	0.515	0.522	0.495	0.533	0.543	0.409
6	0.696	0.515	0.550	0.435	0.495	0.504	0.503	0.490	0.493	0.500	0.519	0.515	0.467
7	0.752	0.485	0.510	0.522	0.477	0.484	0.512	0.482	0.513	0.501	0.526	0.542	0.470
8	0.325	0.485	0.619	0.350	0.523	0.490	0.508	0.504	0.490	0.479	0.536	0.515	0.488
9	0.553	0.506	0.557	0.461	0.476	0.496	0.505	0.548	0.503	0.491	0.521	0.512	0.473
10	0.741	0.509	0.502	0.457	0.506	0.458	0.538	0.494	0.476	0.490	0.517	0.528	0.524
Average	0.552	0.493	0.536	0.480	0.500	0.484	0.520	0.508	0.504	0.491	0.527	0.524	0.471
SD	0.170	0.063	0.067	0.069	0.036	0.013	0.018	0.018	0.015	0.010	0.011	0.011	0.030
RSD	31%	13%	12%	14%	7%	3%	3%	4%	3%	2%	2%	2%	6%