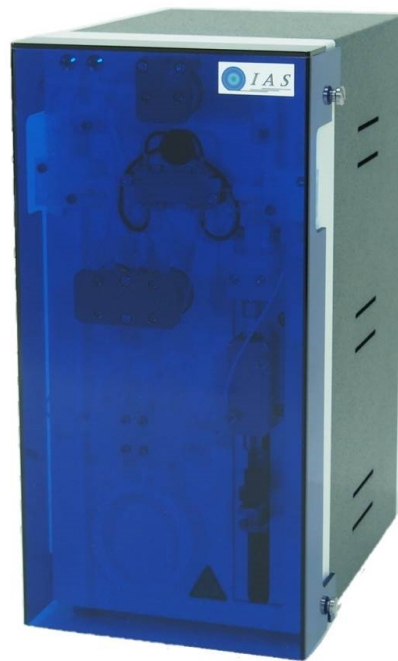




ASAS II

Automated Standard Addition System

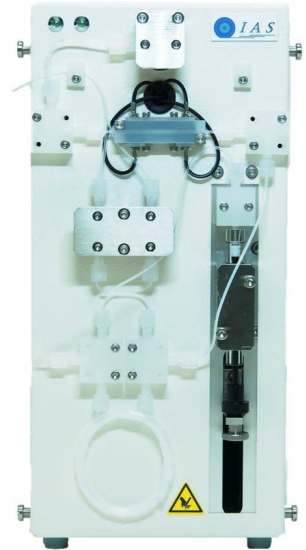


IAS Inc.

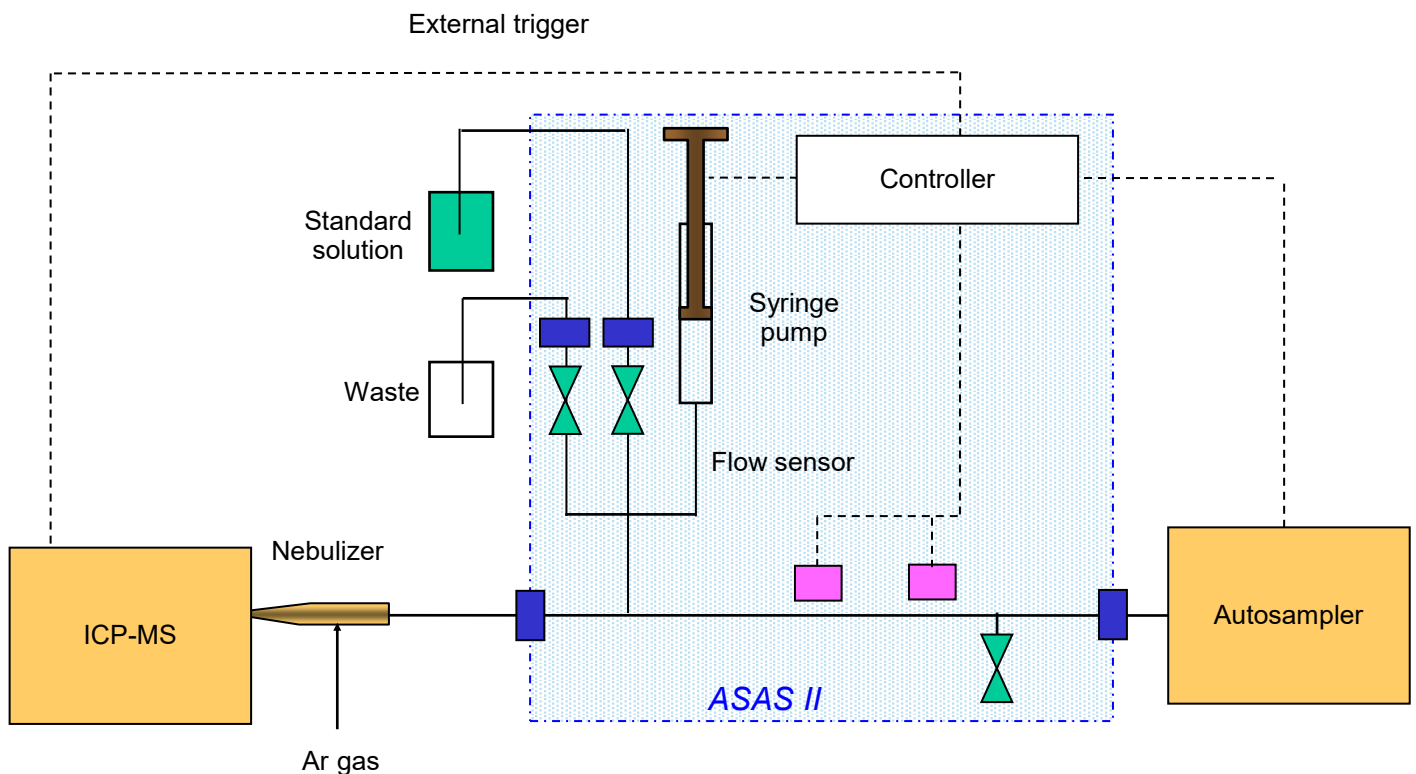
ASAS II sets an operator free from troublesome preparation of standard solution and improves the productivity and precision of your ICP analysis.

Features

- ◆ Calibration standard solution is prepared automatically.
- ◆ Optical flow sensors that don't contact sample solution measure the sample uptake rate automatically.
- ◆ High precision syringe pump (Glass: 1,000 μL) and the patented configuration of no valve in the standard addition line allows the addition of standard solution into sample line at $\mu\text{L}/\text{min}$ level automatically. A typical output flow is around 1-10 $\mu\text{L}/\text{min}$.
- ◆ Self aspiration of sample can be used.
- ◆ Metal free fluoropolymers are used for all wetted surface.
- ◆ Auto refilling of standard solution when solution in the syringe becomes the empty level.

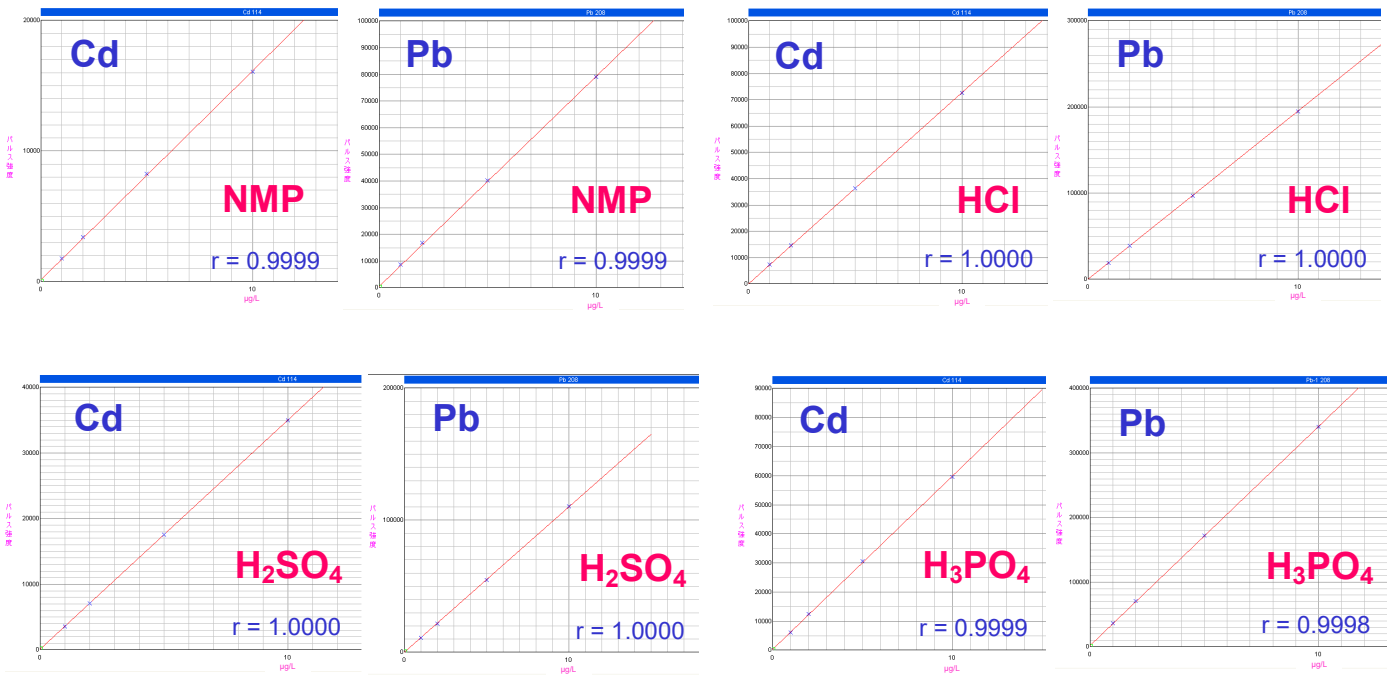


ASAS II



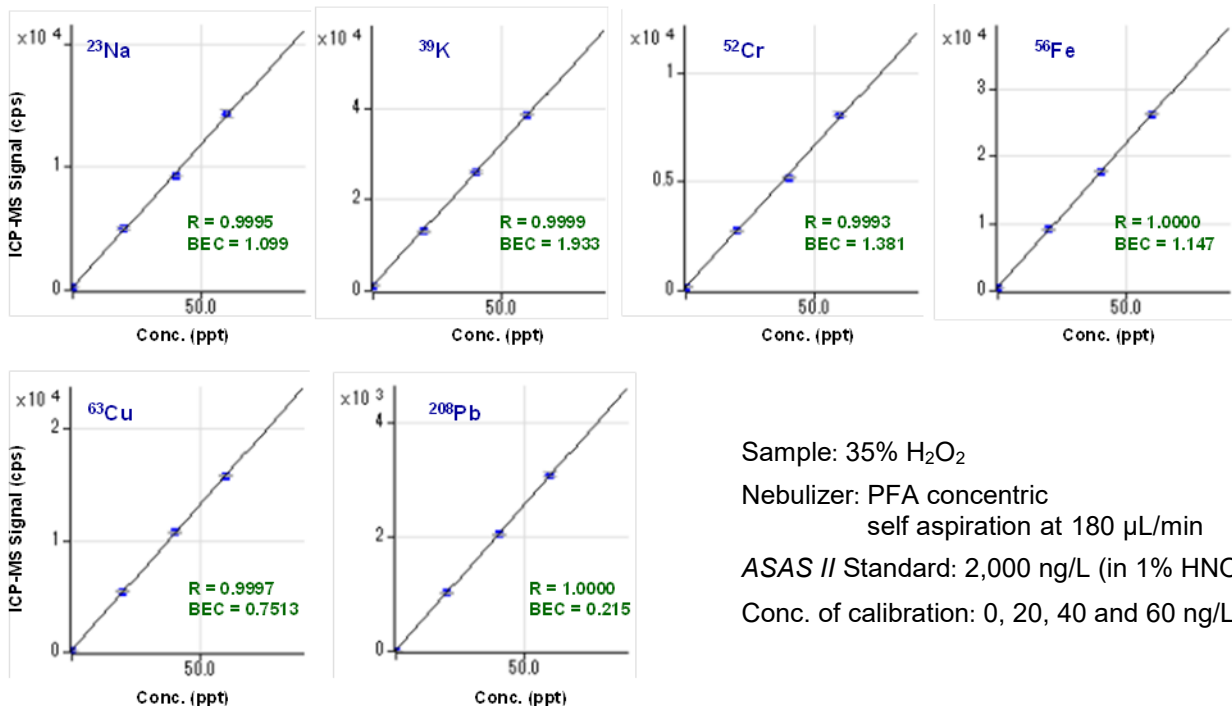
Standard Addition Calibration Curves Using Autosampler

Different chemical samples were set on an autosampler and analyzed by the method of standard addition.



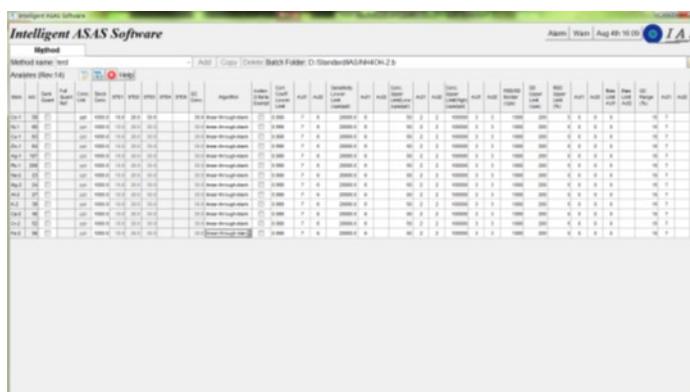
Sample: 10% NMP, 10% HCl, 5% H₂SO₄, 1% H₃PO₄
 Nebulizer: PFA concentric, self aspiration at 200 µL/min
 ASAS II Standard: 0.2 mg/L (in 1% HNO₃)
 Conc. of calibration: 1, 2, 5 and 10 µg/L

Standard Addition Calibration Curves of 35% H₂O₂



Sample: 35% H₂O₂
 Nebulizer: PFA concentric self aspiration at 180 µL/min
 ASAS II Standard: 2,000 ng/L (in 1% HNO₃)
 Conc. of calibration: 0, 20, 40 and 60 ng/L

- ◆ Standard ASAS software controls not only ASAS // and autosamplers, but also sends a trigger signal to ICP. The sequence setup in ICP software can be performed automatically.
- ◆ Intelligent software has the following functions. ASAS // takes the result data from ICP and does all data analysis.
 - Make calibration curves and check correlation coefficient and sensitivity of each elements. Recalibration can be done automatically.
 - Check SD and RSD of each analysis, and function of re-analysis when they are over the limit.
 - Analysis of QC solution at specified frequency, and function of re-analysis or recalibration when it is over the limit.
 - Alarm when results are over the limit.
 - Accuracy and precision check according to SEMI C10-1109 protocol.



Specifications

Model : ASAS2-S, ASAS2-E
 Flow range : 0.10 - 99.99 $\mu\text{L}/\text{min}$
 Flow sensor : Optical fiber sensor
 Syringe volume : Glass 1,000 μL
 Safety : CE marked

Environment & Utilities
 Room temp. : 15 - 30°C
 Humidity : 35 - 85%RH, no condensation
 Power : 100 - 240 VAC $\pm 10\%$ 2 A,
 Single phase, 50/60 Hz
 Size : 166(W) x 234(D) x 324(H) mm
 Weight : 7 kg

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