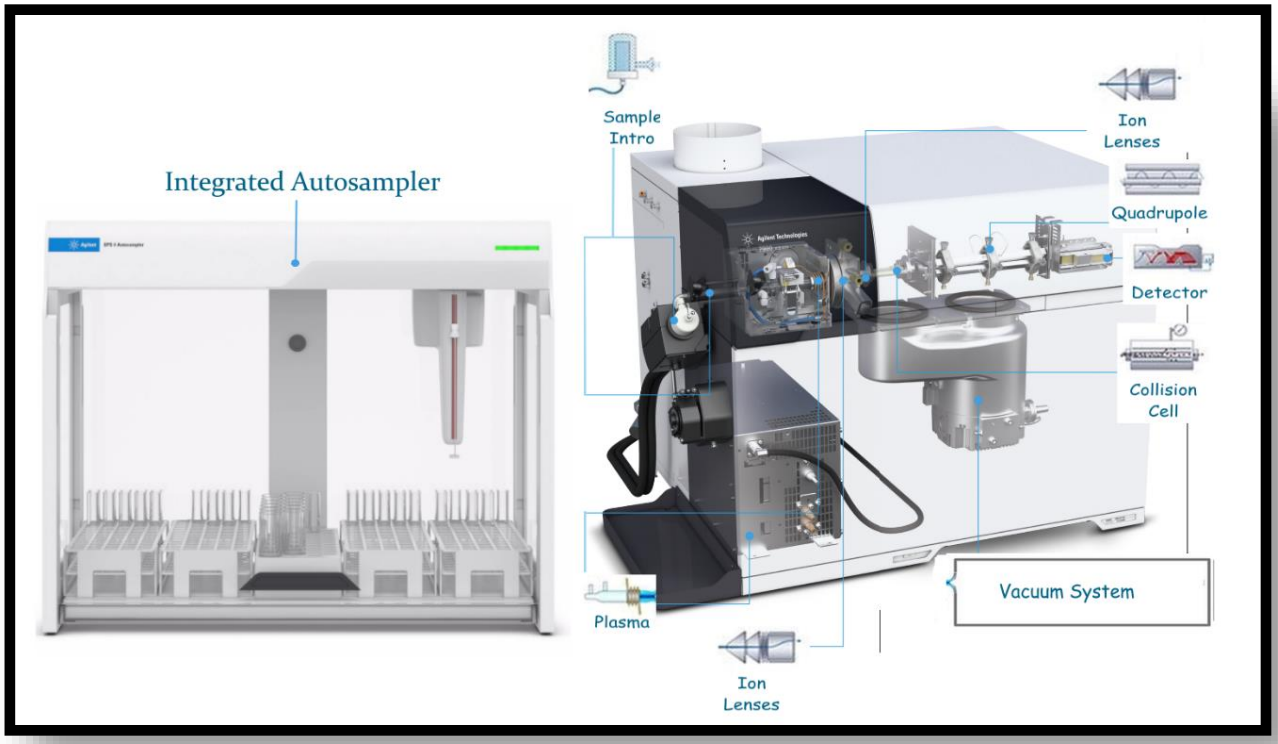
Agilent 7900 ICP-MS



Agilent 7900 Specifications

- Acquisition modes
    a. No Gas
    b. Helium
    c. Hydrogen
- Mass ranges from 2–260 u
- Mass resolution of < 1.0u (from 0.3u)
- The dynamic range > 11 orders (0.1 cps to 10 Gcps)
- Mass stability
    a. < 0.05 u per day
    b. < 0.1 u per 6 months
- Abundance sensitivity (at Cs)
    a. Low masses: ≤ 5 × 10-7
    b. High masses: ≤ 1 × 10-7
- Detector
    a. Orthogonal Detector System
    b. Dual-mode discrete dynode electron multiplier
- Minimum integration time of 100 usec
- Minimum dwell time of 0.1msec

- Sensitivity
    a. No Gas Mode
        i. Sensitivity
            1. ^{7}Li : 140 Mcps/ppm
            2. ^{89}Y: 600 Mcps/ppm
            3. ^{205}Tl: 520 Mcps/ppm
        ii. Background
            1. ^{9}Be: <0.3 cps
        iii. IDL
            1. ^{9}Be: <0.05 ppt
            2. ^{115}In: <0.02 ppt
            3. ^{299}Bi: <0.02 ppt
        iv. Oxides
            1. **Single Charged Oxide CeO/Ce: <1.8%**
            2. **Double Charged Oxide Ce^{2+}/Ce: <2.5%**
        v. Stability
            1. 20 min: <1.0% RSD
            2. 2 hours: <1.2% RSD
        vi. Isotope ration Precision
            1. ^{107}Ag/^{109}Ag: <0.1% RSD
    b. Helium Mode
        i. Sensitivity
            1. ^{59}Co : 65 Mcps/ppm
        ii. Background
            1. ^{9}Be: <0.2 cps
            2.
        iii. Oxide
            1. CeO/Ce: <0.5%
        iv. IDL
            1. ^{75}As: <5 ppt

Integrated Peripherals:

- SPS 4 Autosampler
    a. Liquid Sampling
    b. 360 sample holders
    c. Extraction hosing for safety.
- High Matrix Introduction (HMI)
    a. Plasma tolerates total dissolved solids (TDS)
        i. Levels greater than the 0.1 to 0.2%
        ii. HMI dilutes the sample aerosol using clean, dry argon gas.
        iii. No liquid dilution (minimizing error and time)

Available Pre-Set Environmental Methods:

- EPA 200.8
- EPA 6020B

Contact the TRACES Manager for full details.