

### A New Compact Hydride Generation System for ICP with Improved Stability and Performance

ESI's new hydrideICP, a hydride generation system with integrated precision micro peristaltic pump, improves ICP detection limits for hydride-forming elements such as As, Se, and Sb. Sub-ppb levels of such elements are often difficult to detect with ICP, but hydrideICP converts hydride-forming elements to gas, increasing signal intensity. In a low-volume quartz gas-liquid separator (GLS) hydrides are separated from liquid waste then carried to the ICP injector. The hydrideICP system can increase ICP sensitivity by an order of magnitude or more over a nebulizer-only system.

#### Benefits:

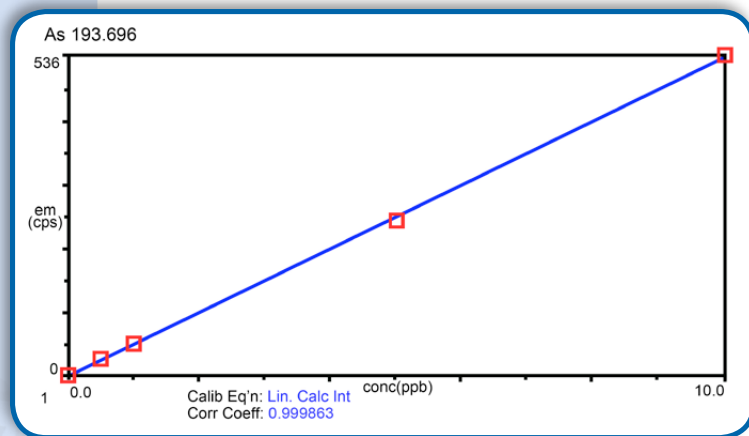
- **Improved detection limits for As, Se, Sb and other hydride-forming elements.**
- **Improved stability**  
MP<sup>2</sup> Micro peripump creates a stable flow of sample and reagent, producing a stable formation of H<sub>2</sub> gas and hydrides.
- **Compact**  
hydrideICP is the smallest system of its kind on the market. (95mm x 118mm x 140mm)
- **Chemically Resistant Construction**  
Micro peripump with ceramic pins  
PFA mixing block  
Quartz GLS
- **Convenient**  
hydrideICP, including PFA mixing block, is completely integrated into the MP<sup>2</sup> pump.

The hydrideICP is available with 4 or 6 channels. The 4-channel version is for basic hydride formation, and the 6-channel version allows the user to add an internal standard, such as Bi.

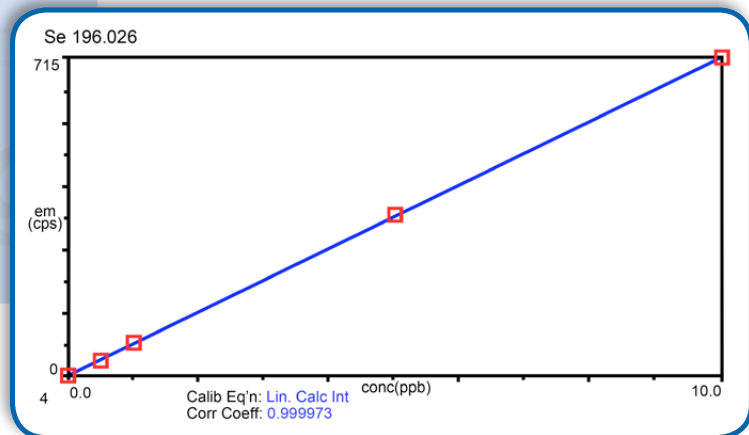
Part Number	Description
HG-MP2-4-A	Hydride generation system, including MP <sup>2</sup> 4 channel precision micro peristaltic pump and gas-liquid separator.
HG-MP2-6-A	Hydride generation system, including MP <sup>2</sup> 6 channel precision micro peristaltic pump and gas-liquid separator and internal standard tee.



MP<sup>2</sup> hydrideICP Generation System



As Hydride Calibration. Calibration points at 0, 0.5, 1, 5, and 10 ppb.



Se Hydride Calibration. Calibration points at 0, 0.5, 1, 5, and 10 ppb.