

The Hydra Series at a Glance



Hydra II_{AA}



Hydra AF



Hydra AF_{Gold Plus}



Hydra-C

Instrument	Hydra II_{AA}	Hydra AF	Hydra AF_{Gold Plus}	Hydra-C
Usage	<ul style="list-style-type: none"> Primarily for liquid samples Determine Hg from low ppt to ppm levels 	<ul style="list-style-type: none"> Primarily for liquid samples Determine Hg from sub ppt to high ppb levels 	<ul style="list-style-type: none"> Primarily for liquid samples Determine Hg from 0.05 ppt to ppb levels 	<ul style="list-style-type: none"> Primarily for solid samples Determine Hg in various matrices without sample preparation
Detection Limit	1 ppt	0.2 ppt	Less than 0.05 ppt	0.005 ng
Dynamic Range	1 ppt - 1 ppm	0.0002 - 250 ppb	0.00005 - 250 ppb	0.005 - 1000 ng (to 20,000 ng with high range option)
Scientific Method	Chemical Reduction followed by Atomic Absorption	Chemical Reduction followed by Atomic Fluorescence		Thermal decomposition followed by amalgamation and atomic absorption
Gas/Liquid Separation	Leeman-designed gas-liquid separator provides exceptional sensitivity and recoveries, even for samples that foam during the reduction step			N.A.
Software Interface	Hydra's software provides ease-of-use and compatibility with other MS-Windows® applications including Word, Excel, and Access. It also permits custom report generation and data manipulation, as well as connectivity to most LIMS systems			
Features	<ul style="list-style-type: none"> Dual beam detection system 30cm optical cell provides exceptional sensitivity and stability, 1 cm optical cell provides access to high concentration Hg measurements High sample throughput for improved productivity and low cost of analysis Easy access sample introduction system Continuous flow-through rinse minimizes sample carryover, even at ultra-low levels High concentration protection system High capacity autosampler Upgradable to direct solid analysis (Hydra-C) 	<ul style="list-style-type: none"> Proprietary fluorescence optical cell High sample throughput for improved productivity and low cost of analysis Counter-flow Nafion® membrane dryer minimizes water vapor-based scatter in the fluorescence cell Continuous flow-through rinse minimizes sample carryover, even at ultra-low levels High concentration protection system 	<ul style="list-style-type: none"> Proprietary fluorescence optical cell High sample throughput for improved productivity and low cost of analysis Counter-flow Nafion® membrane dryer minimizes water vapor-based scatter in the fluorescence cell Continuous flow-through rinse minimizes sample carryover, even at ultra-low levels High concentration protection system Dual fluorescence detectors provide unparalleled working range from sub ppt to high ppb Ultra trace analysis mode with dual gold amalgamation traps for improved performance at sub-part-per-trillion levels 	<ul style="list-style-type: none"> Analysis in 5 minutes Easy access maintenance Green chemistry/ no chemicals needed & no hazardous waste produced Applicable to both solid & liquid samples
EPA/ASTM Methods	245.1 245.5 245.6 7470A 7471B	245.7	245.7 1631	EPA 7473 ASTM D-6722-01
European Standards	EN-1483 EN-13806	EN-13506	EN-13506 EN-12338	
Maintenance	<i>On-line audio visual help</i> guides users through routine operation and maintenance. <i>Predictive Maintenance</i> ensures that Hydra series instruments consistently operate at peak performance.			
Service	A variety of post warranty service options are available to Hydra Series operators. Please inquire for additional details.			

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