

Hydra II Mercury Family – ‘At-a-Glance’ Capabilities Summary

Sample	Hydra II _{AA}	Hydra II _{AF}	Hydra II _{AF Gold}	Hydra II _C
Analytical Method Used	Chemical reduction followed by cold vapor atomic absorption (CVAA)	Chemical reduction followed by cold vapor atomic fluorescence (CVAF)	Chemical reduction and Hg pre-concentration followed by cold vapor atomic fluorescence (CVAF)	Thermal decomposition followed by amalgamation and atomic absorption
Recommended for:	<ul style="list-style-type: none"> Liquid samples Hg measured from low ppt to ppm levels 	<ul style="list-style-type: none"> Liquid samples Hg measured from sub ppt to high ppb levels 	<ul style="list-style-type: none"> Liquid samples When the lowest detection levels are required 	<ul style="list-style-type: none"> Solid, semi-solid matrices Analysis without sample preparation
Detection Limit	1 ppt	0.1 ppt	0.05 ppt	0.001 ng
Usable Range	1 ppt – 1 ppm	0.1 ppt – 250 ppb	<0.05 ppt – 250 ppb	0.001 ng – 1500 ng; <25,000 ng with extended range option

Key Capabilities	Hydra II _{AA}	Hydra II _{AF}	Hydra II _{AF Gold}	Hydra II _C
High Performance Gas/Liquid separator	Y	Y	Y	NA
Easy access ‘on the fly’ sample introduction system	Y	Y	Y	Y
Dual cell detection system for wide dynamic range	Y	N	N	Y
Built in high concentration protection system	Y	Y	Y	NA
Flow through rinse to minimize carryover even at ultra-low levels	Y	Y	Y	NA
Counter-flow Nafion® membrane dryer to minimize vapor formation in detector cells	Y	Y	Y	Y
Can be reconfigured to liquids analysis	NA	NA	NA	Y
Can be reconfigured to solids analysis	Y	N	N	NA
Ultra-trace analysis mode with gold amalgamation for lower detection levels	NA	N	Y	Y

Regulatory and/or ‘Standard’ Methods – System Selection Guide	Hydra II _{AA}	Hydra II _{AF}	Hydra II _{AF Gold}	Hydra II _C
(US) EPA 245.1	X			
(US) EPA 245.5	X			
(US) EPA 245.6	X			
(US) EPA 245.7		X	X	
(US) EPA 7470A	X			
(US) EPA 7471B	X			
(US) EPA 7473				X
(US) EPA 1631E			X	
ASTM D6722-01				X
EN 1483	X			
EN 13806	X			
EN 13506		X	X	
EN 12338			X	
EN 17582		X		