Agilent 7850 ICP-MS

Free your workflow from common time traps

Agilent
Trusted Answers

Free your workflow from common time traps

There are many time traps across the ICP-MS workflow that increase pressure on lab staff and reduce lab productivity

The new Agilent 7850 ICP-MS builds upon market leading performance to incorporate an entirely new layer of smart capabilities that deliver deeper insight into samples, processes, and operational status.

This insight enables completely new and proactive approaches to reclaiming wasted time, bringing you greater efficiency and confidence in your operations and your results.

What's New on the Agilent 7850 ICP-MS

The Agilent 7850 introduces a smarter way to improve lab efficiency and reduce the daily pressures experienced by busy lab staff

Smart Features that reduce time traps along the ICP-MS Workflow

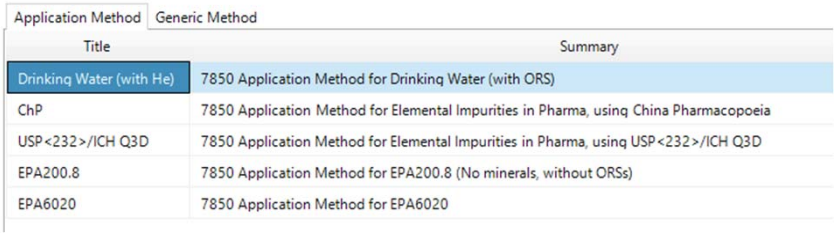
- Streamlined MassHunter User Interface
- Faster Method Development
- Simpler sample & standard preparation with uHMI
- Fewer errors with more insight into each and every sample
- Less time spent reviewing and reporting results
- Better scheduling of maintenance events
- Automatic post-run performance check
- Extensive range of support services

Developing New Methods / Learning a New Instrument

New to ICP-MS. Give Your Lab a Head Start

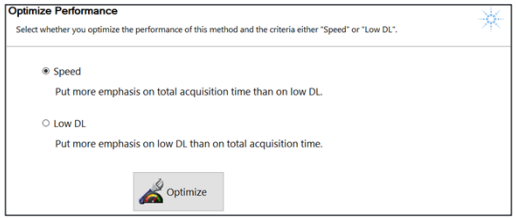
Preset or Pre-developed Methods (Templates)

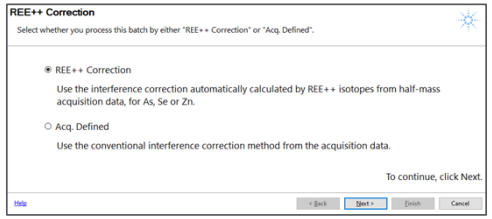
- Drinking Water (EPA 200.8)
- Wastewaters, Solid waste (EPA 6020)
- US and China Pharmacopeia
- Low, medium, high matrix samples



Method Wizard Optimization

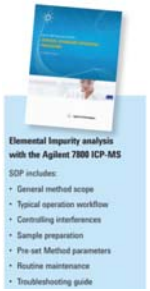
- Customize methods to your application needs
- IntelliQuant as a method development tool
- Reduces reliance on learning a new software





Prewritten SOPs

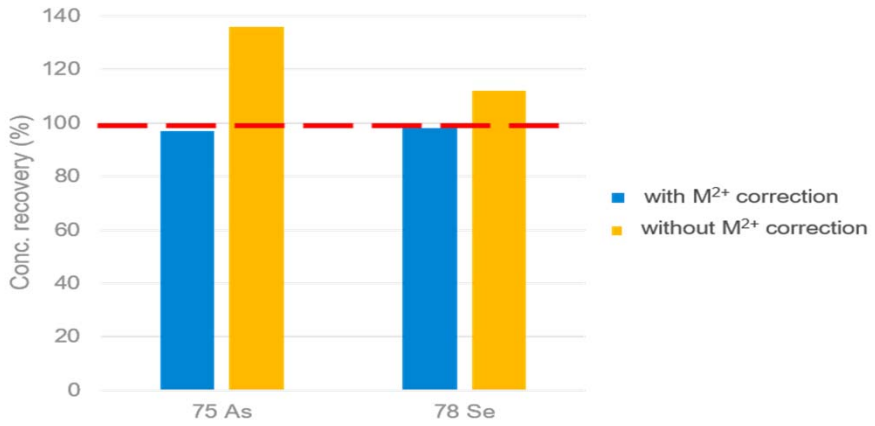
- Saves days of documentation time



Introducing More Robust Methodology

28 elements in Environmental Waters - ISO 17294-2.

- New Preset Method on MassHunter v5.1
- He Cell + Half Mass correction
- Removes known and unknown interferences
  - ➢ Removes common polyatomic interferences with He collision mode
  - ➢ Accurately corrects for REE++ interferences on As & Se
  - ➢ Measure 28 elements in each sample only once

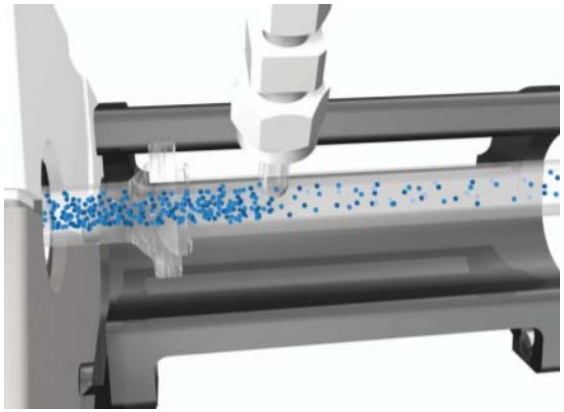


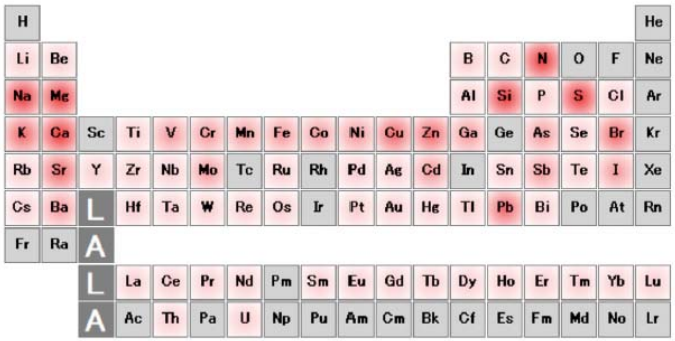
Element and Mass number	Gas Mode	LOQ (ppb)	ISO Method Specs (ppb)
7 Li	No gas	0.004	1
9 Be	No gas	0.003	0.1
11 B	No gas	0.088	1
23 Na	He	1.47	10
24 Mg	He	0.290	1
27 Al	He	0.313	1
31 P	He	0.573	5
39 K	He	7.335	5
44 Ca	He	8.972	50
51 V	He	0.028	0.1
52 Cr	He	0.030	0.1
55 Mn	He	0.035	0.1
56 Fe	He	0.103	5
59 Co	He	0.010	0.2
60 Ni	He	0.056	0.1
63 Cu	He	0.028	0.1
66 Zn	He	0.205	1
75 As	He	0.018	0.1
78 Se	He*	0.055	0.1
95 Mo	He	0.004	0.5
107 Ag	He	0.007	0.5
111 Cd	He	0.002	0.1
121 Sb	He	0.043	0.2
137 Ba	He	0.060	3
201 Hg	He	0.004	0.05
205 Tl	He	0.026	0.1
Pb*8	He	0.007	0.1
238 U	He	0.0004	0.1

Sample & Standard Preparation

Simplified Prep

- uHMI avoids the need for additional, time-consuming sample dilutions and lowers risk of contamination
- Major, minor and trace elements in a single run without sample screening and with fewer overranges
- Robust methods avoid the need for matrix-matching calibration solutions with samples
- He collision mode and Half-mass correction handle matrix-based interferences commonly faced in typical analyses
- IQ captures unusual sample matrices or missed sample preparation steps that can affect data quality, resulting in remeasurement – E.g.
  - HCl not added to samples
  - High Na matrix interfering on Cu63
- Can measure trace level Hg and other chemically unstable elements accurately and by stabilizing with HCl.
  - Cl-based interferences are automatically removed using He collision cell.





ICP-MS MassHunter IntelliQuant heat map showing complete major and trace element content of a surface water sample.

Monitoring Sample Analyses

Increased Mobility & Simplified User Interface

ICP Go - For Operators on the Move

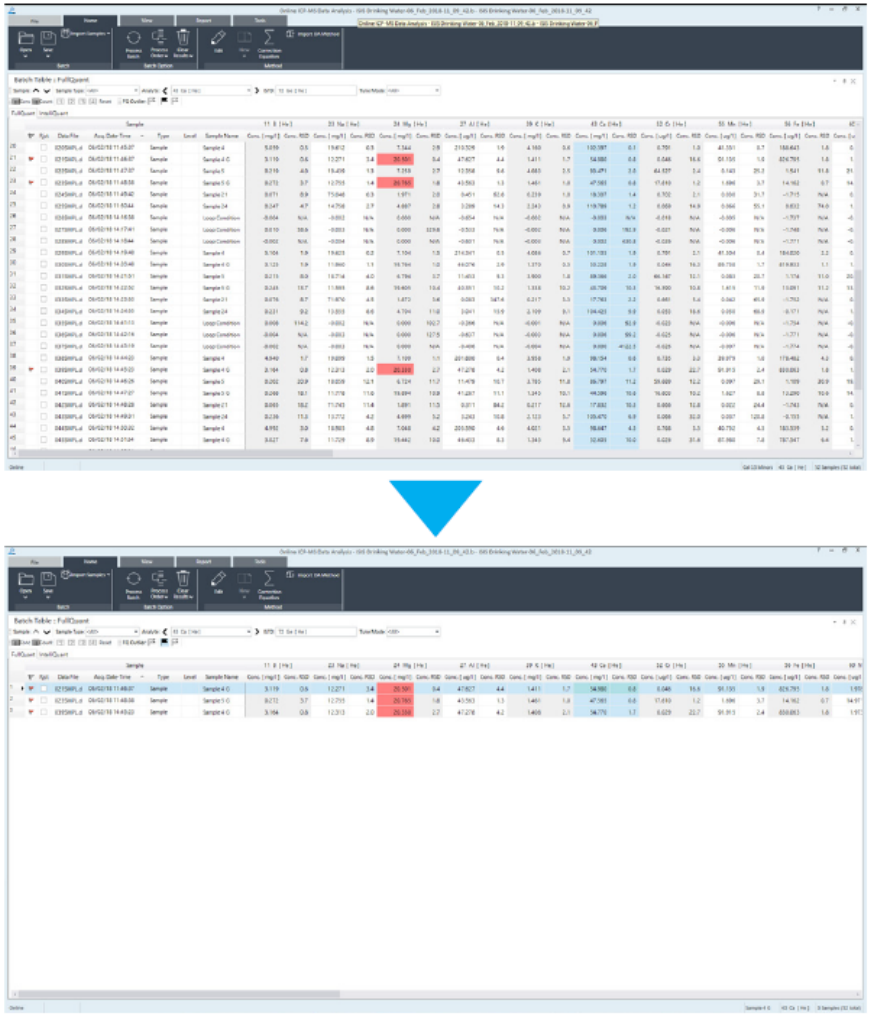
- Load and manage sample batches from a simplified user-interface with a mobile device
- Browser-based interface allows remote operation and monitoring of analyses within a LAN, including from your office desk
- Responsible for more than one instrument - Monitor multiple systems in the lab from a single and mobile workstation.

Reviewing and Reporting Results

Outlier Conditional Formatting

Reviewing large datasets after each analysis is a major time-trap that is often under-appreciated

- Many operators often review each result for precision, accuracy, I/S suppression & drift, presence of high matrix/interference
- Regulated labs often rely on QC protocols only to ensure data quality
- Inexperienced or busy operators can miss errors that may be reported to clients
- OCF highlights and alerts operators to only those results that need their attention, saving valuable time and the embarrassment of reporting an incorrect result

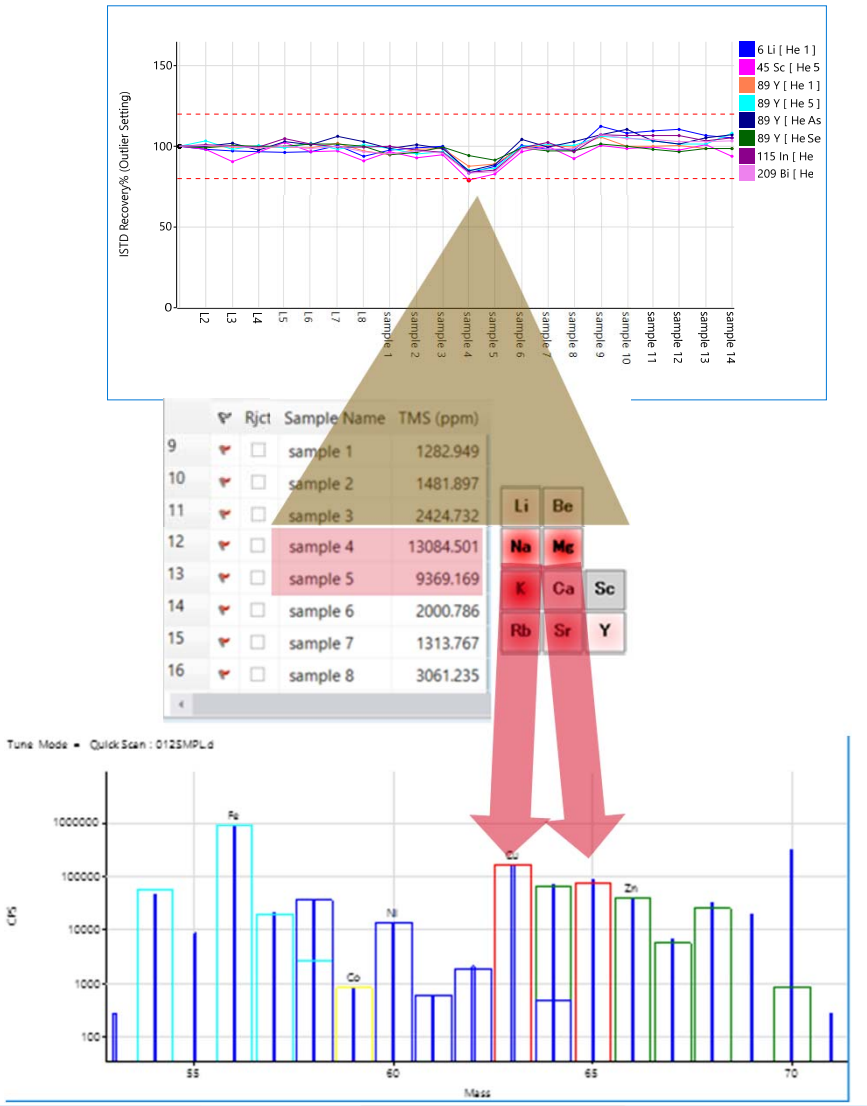


During or after a run, you can filter sample data (top) to show only those results that need to be reviewed (bottom).

Reviewing and Reporting Results

IntelliQuant

- IntelliQuant is an invaluable post-run troubleshooting tool in the event of a customer data query or unexpected sample matrix
- Can confirm the presence of any analyte and includes results for alternate isotope to determine the presence of an interference
  - Use alternate Cu65 result when interference from high Na matrix on Cu63 is suspected
- Unexpected major elements are easily identified and results for unrequested elements can be provided without remeasuring samples
- Requires only a few seconds per sample and does not need calibration
- Gives total confidence in the results you report.

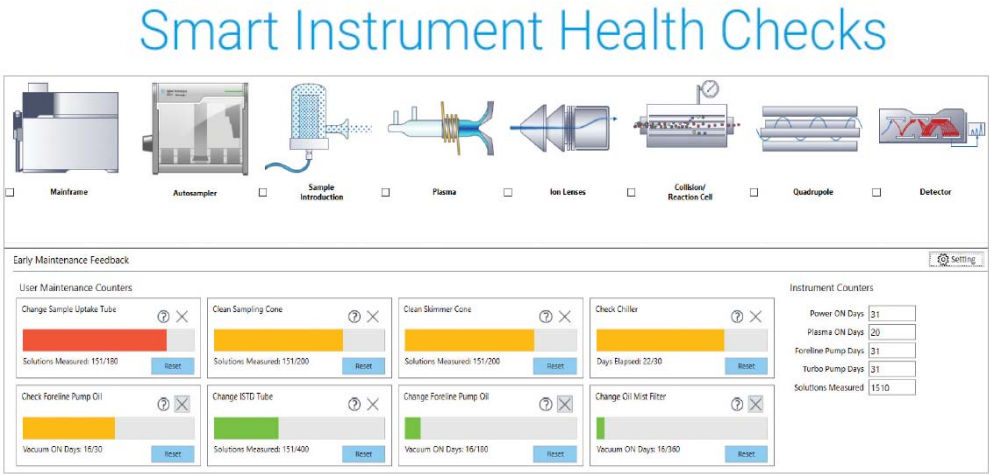


Instrument Maintenance and Downtime

Early Maintenance Feedback

The right amount of maintenance

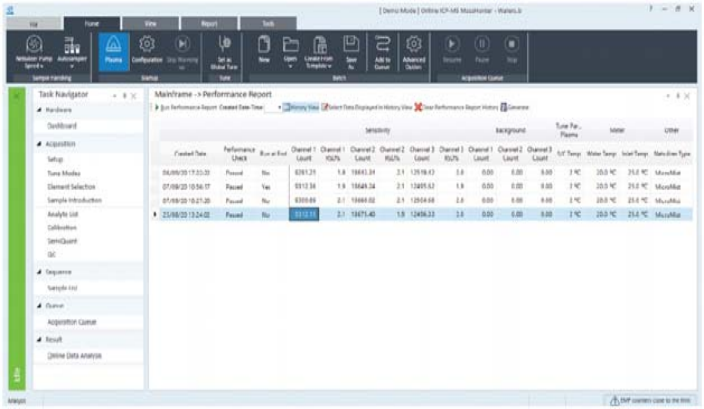
- Insufficient maintenance can cause unplanned downtime and unnecessary service calls
- Poor performance leads to lower data quality and an increase in sample measurements
- Too much maintenance wastes time and increases consumable costs, for no real benefit
- EMF sensors and counters determine when maintenance is needed, based on actual usage – rather than at pre-determined time intervals
- Traffic-light color-coded alerts ensure maintenance tasks are never missed or done too frequently

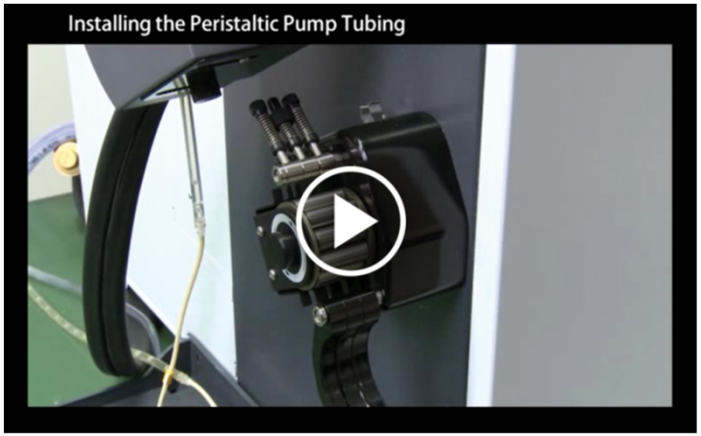


Daily Checks, Cleaning and Tuning

New ‘Post-run Performance Check’

- Operators traditionally do ‘Pre-run performance checks’ prior to Analysis
- Better to know instrument performance status immediately after an analysis
  - ➢ Smaller labs can verify instrument performance in the afternoon, ready for next day sample analysis
    - If necessary, operator can perform maintenance prior to going home
    - EMF status assists to suggest components requiring maintenance
    - Help & Learning Center provides video assistance on maintenance tasks
  - ➢ Larger labs running samples overnight will know immediately when they arrive the next morning
    - saves valuable remeasurement time from analysis failures due to low sensitivity, poor precision or signal drift





Introducing ICP-MS MassHunter 5.1

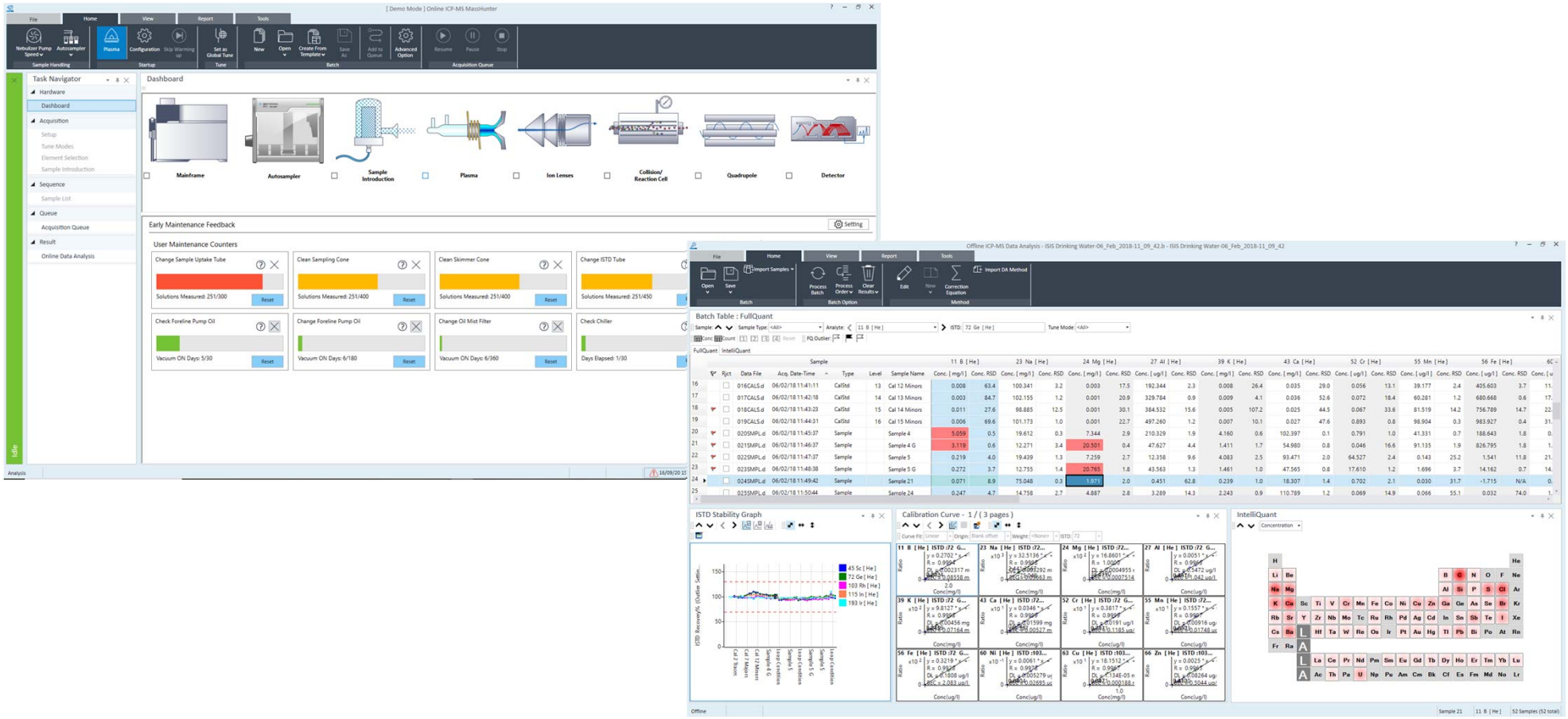
Agilent

Introduction to ICP-MS MassHunter 5.1

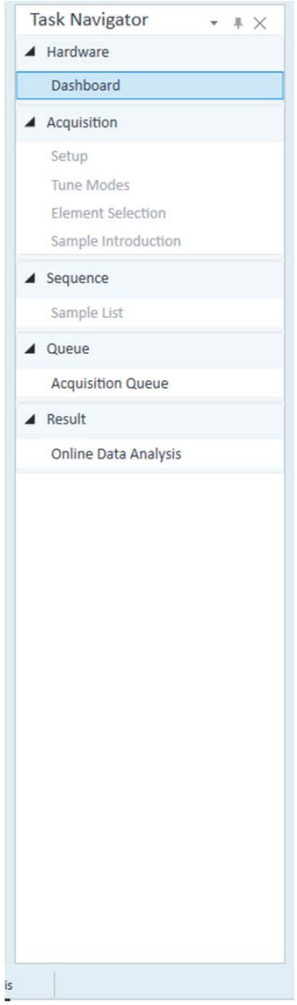
Ease of use, simplified tasks and advanced features make MassHunter 5.1 the best solution for anyone new to ICP-MS.

- Streamlined User Interface (UI)
  - Linear, task-based approach to simplify instrument control, sample measurement and analysis
  - Logical workflow reduces learning curve and provides fast access to routine tasks
- Easy Method Development
  - A series of **preset methods** mean rapid and easy method setup
  - The **Method Wizard** and **IntelliQuant Assistant** help build a method regardless of knowledge
- Operational Insights
  - Color-coded **Instrument Status Indicator**, **Smart Early Maintenance Feedback (EMF)**, **startup** and **end of run performance checking** ensure no time or consumables are wasted on unnecessary maintenance and provide all the information to plan any maintenance in advance
- Sample Insights – Improving Data Quality
  - **Helium Collision Mode** simplifies the mass spectrum like no other system. Enhanced features such as **IntelliQuant** and **Outlier Conditional Formatting** ensure the very best sample insights

Beautifully simple, feature-packed



Beautifully simple, feature-packed

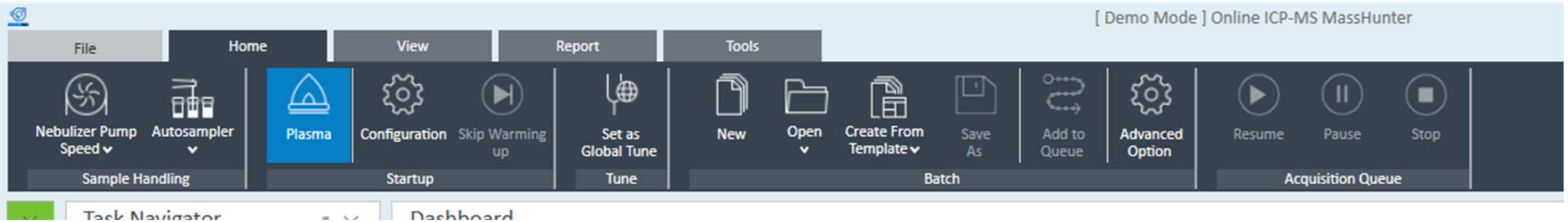


Task Navigator

New top-down approach to method development and instrument operation

- Simple to understand and easy to navigate
- Updated task screens further enhance ease of use

Beautifully simple, feature-packed



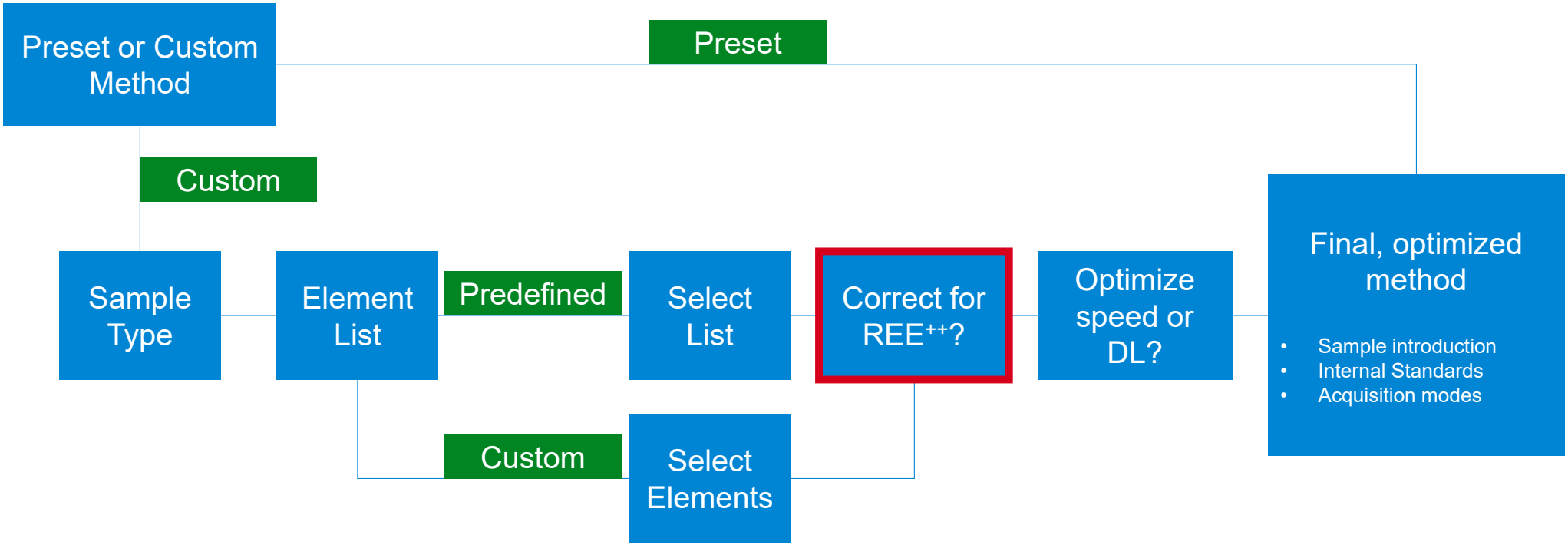
Menu Ribbon Bar

Microsoft® Office style ribbon bar
Simplification of menu items
Logical layout

Easy method development with Method Wizards

Simplify the task of creating new methods regardless of experience

Guided method development based upon a few questions

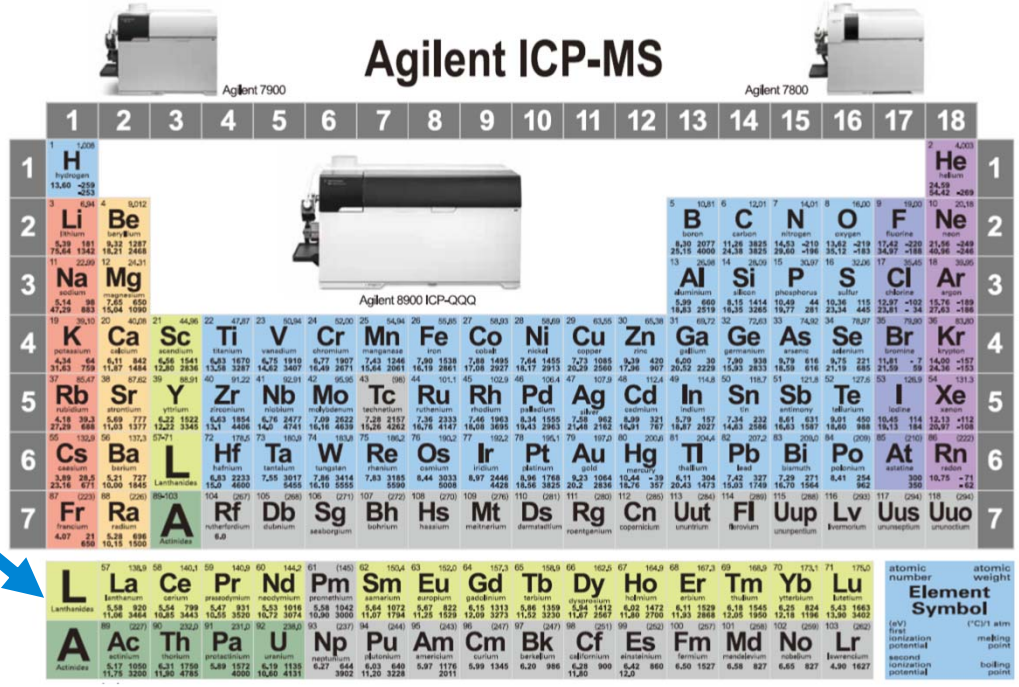


Correct for REE^{++}?

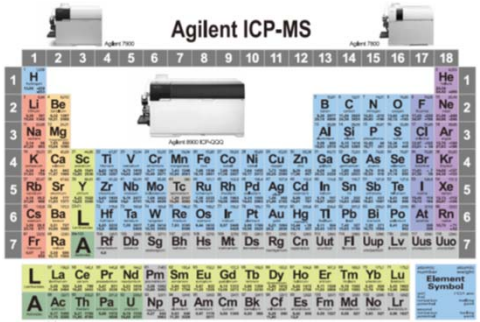
Doubly Charged Interference Correction

Why is it needed?

Rare Earth Elements (REEs) are not so rare!



Doubly Charged Interferences



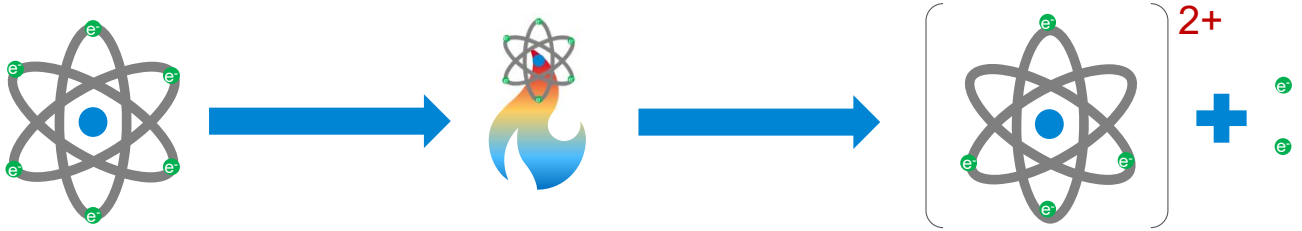
Why is it needed?

Rare Earth Elements (REEs) are not so rare!

They are gaining increased use in electronics, automotive and many other industries

- Find their way into the environment from manufacturing, mining, landfill and occur naturally too

REE's have a fairly low second ionization potential which means they can lose two electrons

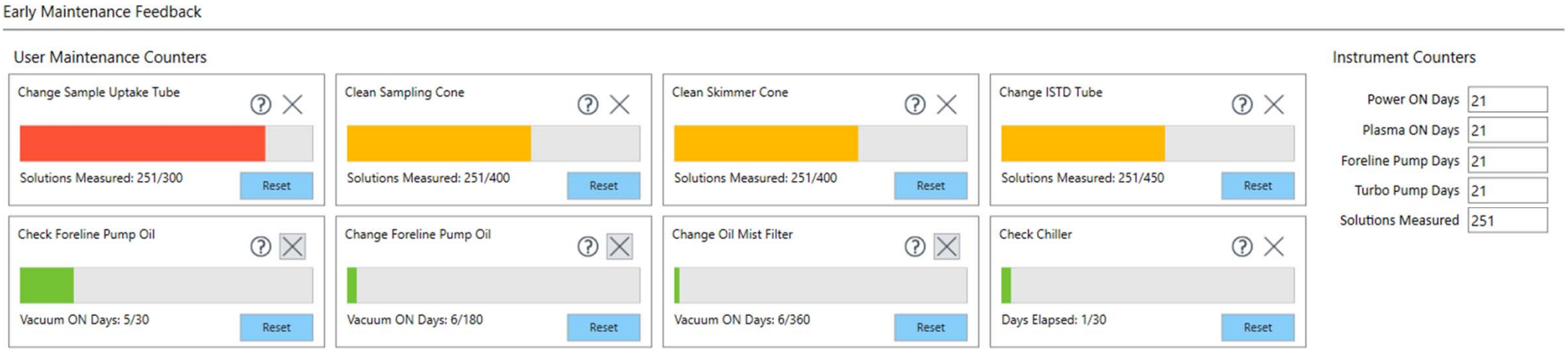


REE^{++} appear at half their original mass and can form interferences on As, Se and others

Because they are ELEMENTAL, not polyatomic, Helium Mode does not affect them

Our unique doubly charged correction significantly reduces or eliminates the doubly charged influence on data quality

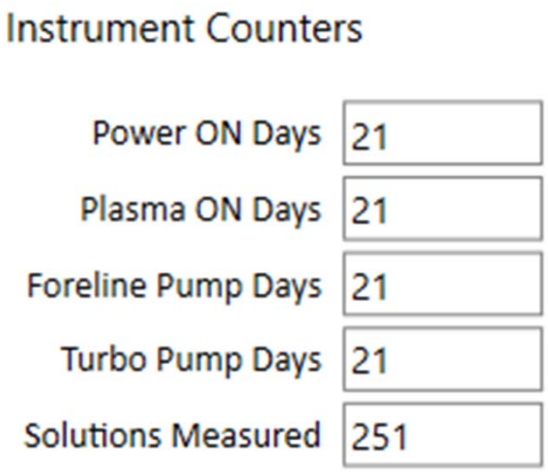
Maintenance Time Traps – Smart EMF



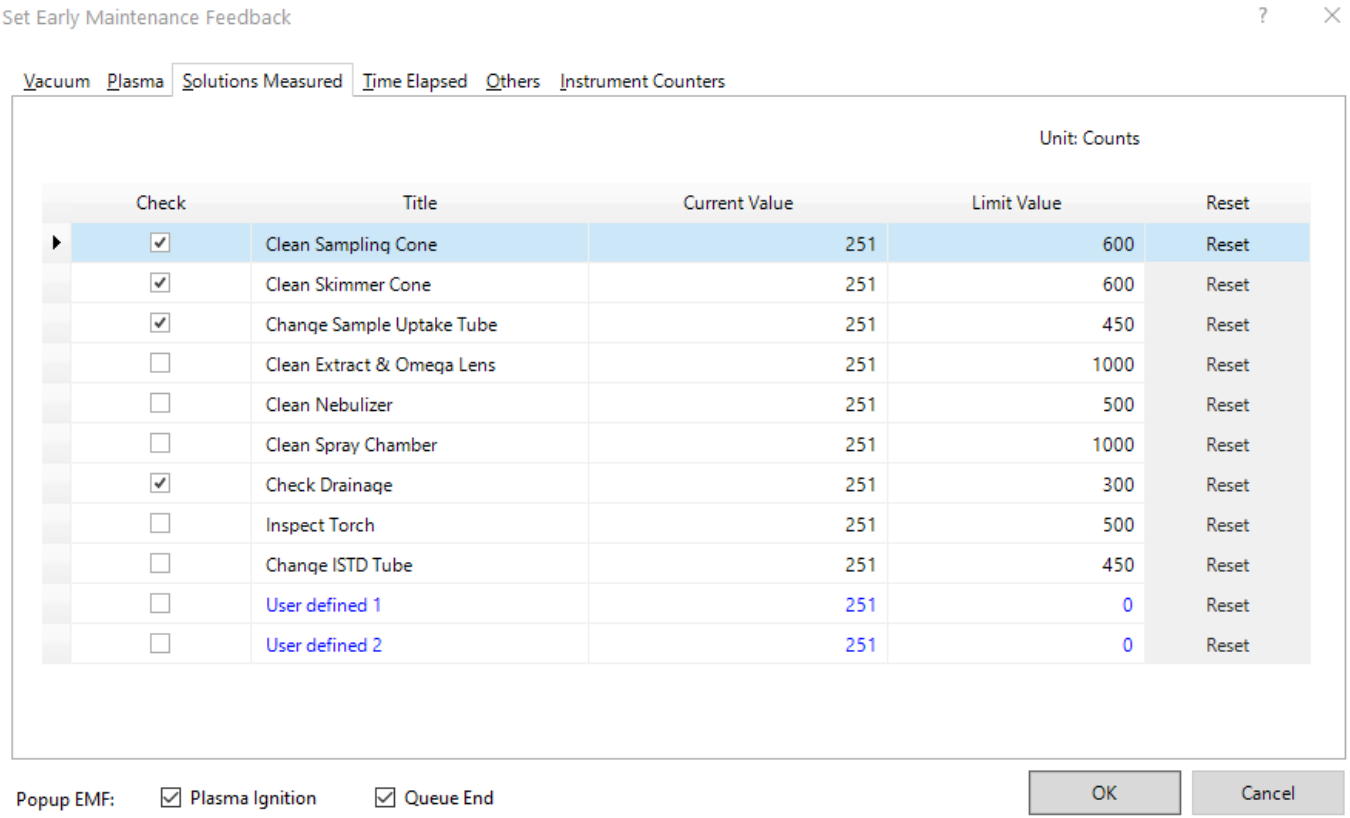
Same as ICP Expert, modified for ICP-MS

- Installed with sensible default settings – can be changed as required
- Multiple configurable meters
- User meter options
- Important items such as vacuum system pump are ON

Maintenance Time Traps – Smart EMF



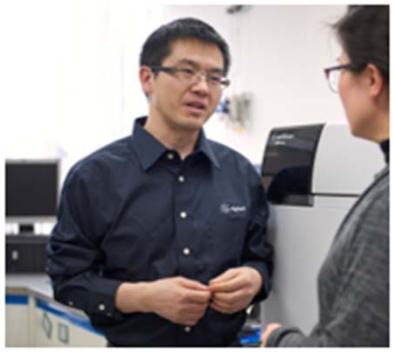
Time and sample-based counters greatly improve maintenance scheduling (planned downtime) and ***reduces unplanned downtime***



Configurable and flexible maintenance management

Maintenance & Daily Checks Time Traps – Postrun Checks

Smarter instrument performance and maintenance



How much time is wasted:

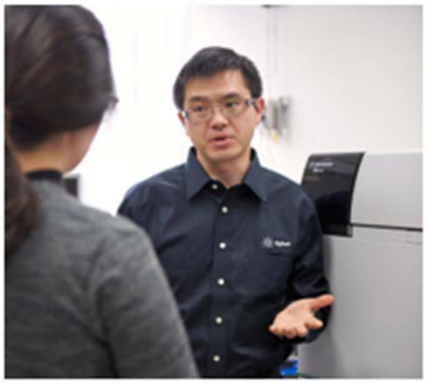
- On unnecessary maintenance?
- Realizing maintenance is needed after start-up?
- Running samples on an un-optimized instrument?

Smarter instrument performance and maintenance

Run an automatic performance check after your sample batches

Provide useful suggestions

Smarter instrument performance and maintenance



How do you know whether your instrument needs maintenance or not BEFORE you turn on the plasma?

Single-click setup checks the system at the end of an analysis queue

Evaluate performance

If needed, provide maintenance feedback

Recorded in the performance log

Maintenance & Daily Checks – Pre & Postrun Checks

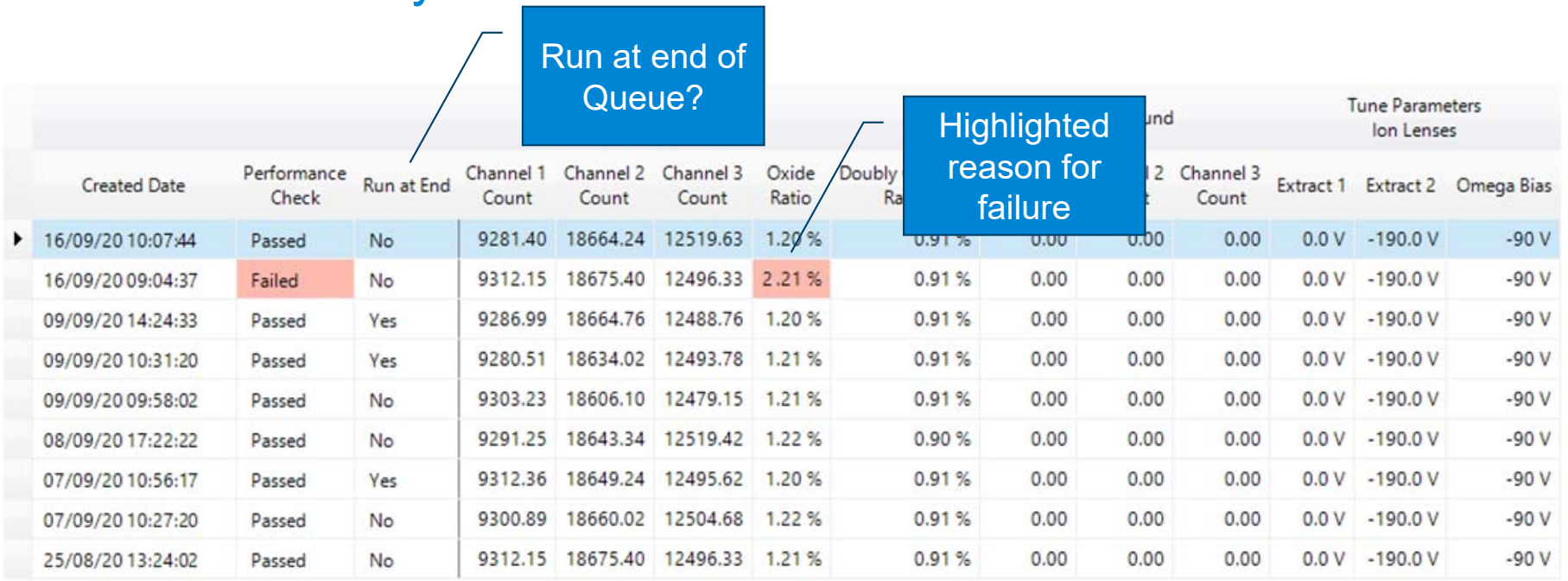
Pass or **Fail** Notification

				Sensitivity				Background				Tune Parameters Ion Lenses		
	Created Date	Performance Check	Run at End	Channel 1 Count	Channel 2 Count	Channel 3 Count	Oxide Ratio	Doubly Charged Ratio	Channel 1 Count	Channel 2 Count	Channel 3 Count	Extract 1	Extract 2	Omega Bias
▶	16/09/20 10:07:44	Passed	No	9281.40	18664.24	12519.63	1.20 %	0.91 %	0.00	0.00	0.00	0.0 V	-190.0 V	-90 V
	16/09/20 09:04:37	Failed	No	9312.15	18675.40	12496.33	2.21 %	0.91 %	0.00	0.00	0.00	0.0 V	-190.0 V	-90 V
	09/09/20 14:24:33	Passed	Yes	9286.99	18664.76	12488.76	1.20 %	0.91 %	0.00	0.00	0.00	0.0 V	-190.0 V	-90 V
	09/09/20 10:31:20	Passed	Yes	9280.51	18634.02	12493.78	1.21 %	0.91 %	0.00	0.00	0.00	0.0 V	-190.0 V	-90 V
	09/09/20 09:58:02	Passed	No	9303.23	18606.10	12479.15	1.21 %	0.91 %	0.00	0.00	0.00	0.0 V	-190.0 V	-90 V
	08/09/20 17:22:22	Passed	No	9291.25	18643.34	12519.42	1.22 %	0.90 %	0.00	0.00	0.00	0.0 V	-190.0 V	-90 V
	07/09/20 10:56:17	Passed	Yes	9312.36	18649.24	12495.62	1.20 %	0.91 %	0.00	0.00	0.00	0.0 V	-190.0 V	-90 V
	07/09/20 10:27:20	Passed	No	9300.89	18660.02	12504.68	1.22 %	0.91 %	0.00	0.00	0.00	0.0 V	-190.0 V	-90 V
	25/08/20 13:24:02	Passed	No	9312.15	18675.40	12496.33	1.21 %	0.91 %	0.00	0.00	0.00	0.0 V	-190.0 V	-90 V

Startup and end of run performance PASS or FAIL checking standard

- Sensible, default performance targets based upon IQ/OQ
- Fully configurable to any situation

Maintenance & Daily Checks – Pre & Postrun Checks

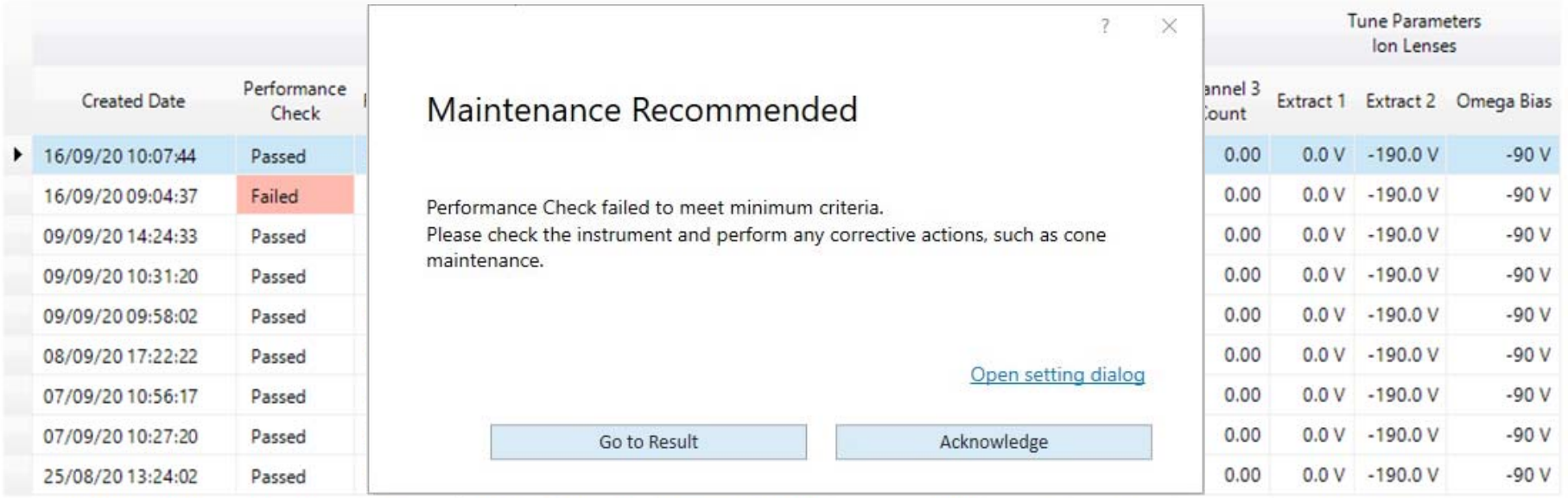


Created Date	Performance Check	Run at End	Channel 1 Count	Channel 2 Count	Channel 3 Count	Oxide Ratio	Doubly Ra	und		Tune Parameters Ion Lenses		
								l 2	Channel 3 Count	Extract 1	Extract 2	Omega Bias
16/09/20 10:07:44	Passed	No	9281.40	18664.24	12519.63	1.20 %	0.91 %	0.00	0.00	0.0 V	-190.0 V	-90 V
16/09/20 09:04:37	Failed	No	9312.15	18675.40	12496.33	2.21 %	0.91 %	0.00	0.00	0.0 V	-190.0 V	-90 V
09/09/20 14:24:33	Passed	Yes	9286.99	18664.76	12488.76	1.20 %	0.91 %	0.00	0.00	0.0 V	-190.0 V	-90 V
09/09/20 10:31:20	Passed	Yes	9280.51	18634.02	12493.78	1.21 %	0.91 %	0.00	0.00	0.0 V	-190.0 V	-90 V
09/09/20 09:58:02	Passed	No	9303.23	18606.10	12479.15	1.21 %	0.91 %	0.00	0.00	0.0 V	-190.0 V	-90 V
08/09/20 17:22:22	Passed	No	9291.25	18643.34	12519.42	1.22 %	0.90 %	0.00	0.00	0.0 V	-190.0 V	-90 V
07/09/20 10:56:17	Passed	Yes	9312.36	18649.24	12495.62	1.20 %	0.91 %	0.00	0.00	0.0 V	-190.0 V	-90 V
07/09/20 10:27:20	Passed	No	9300.89	18660.02	12504.68	1.22 %	0.91 %	0.00	0.00	0.0 V	-190.0 V	-90 V
25/08/20 13:24:02	Passed	No	9312.15	18675.40	12496.33	1.21 %	0.91 %	0.00	0.00	0.0 V	-190.0 V	-90 V

Startup and end of run performance PASS or FAIL checking standard

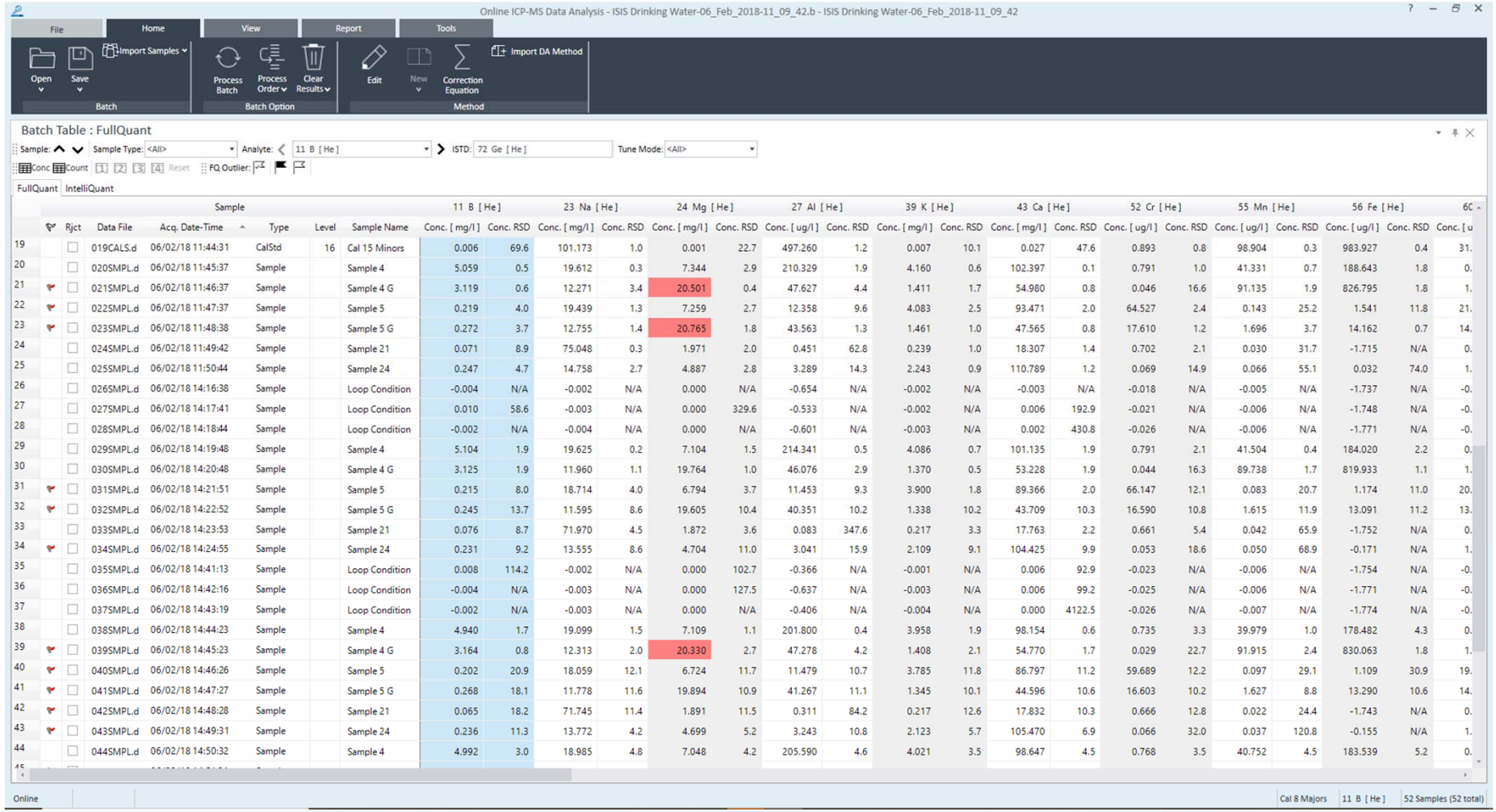
- Sensible, default performance targets based upon IQ/OQ
- Fully configurable to any situation

Maintenance & Daily Checks– Pre & Postrun Checks



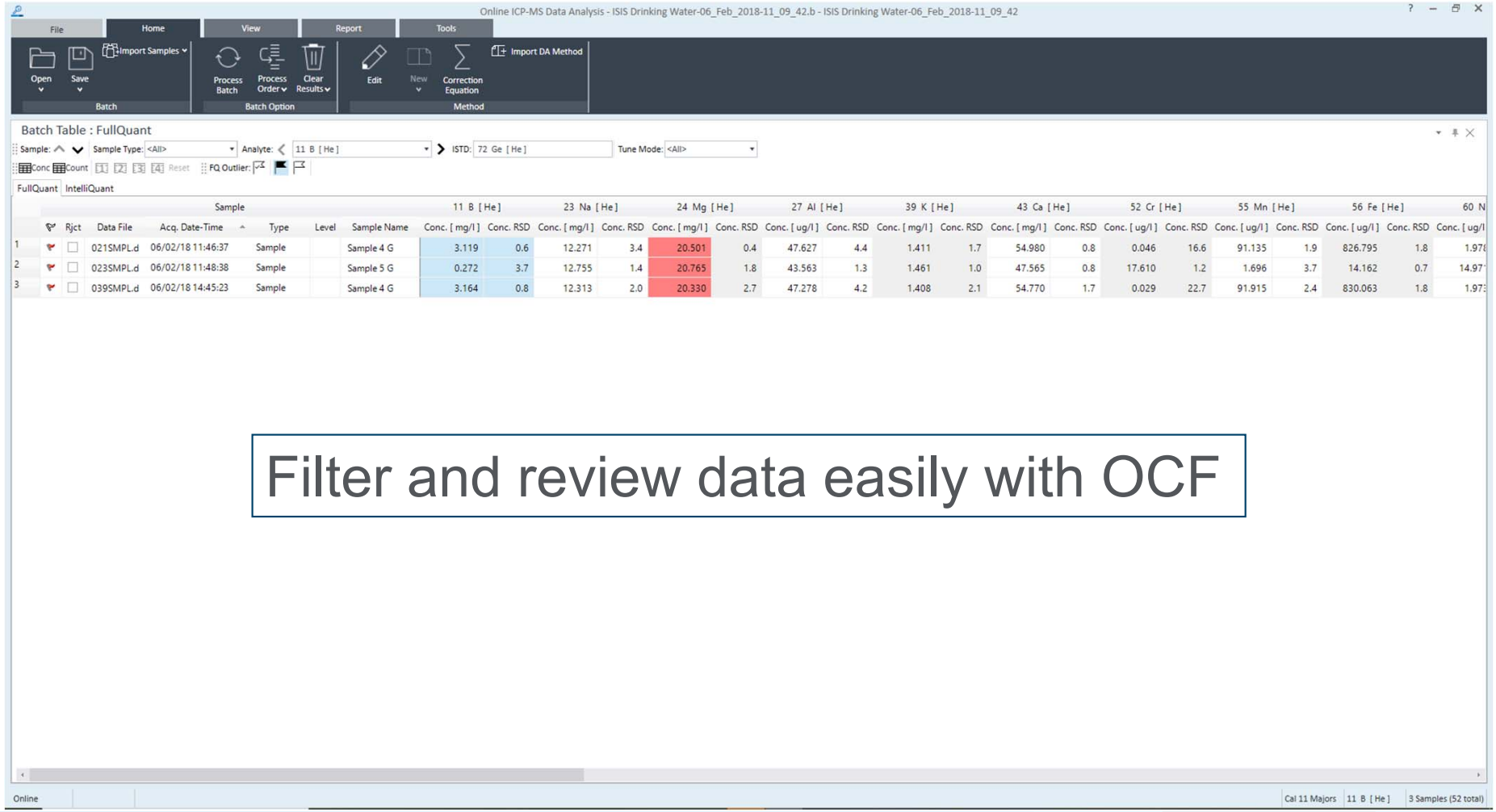
!Know your instrument status before you turn it on!

Sample Insights with OCF (Outlier Conditional Formatting)



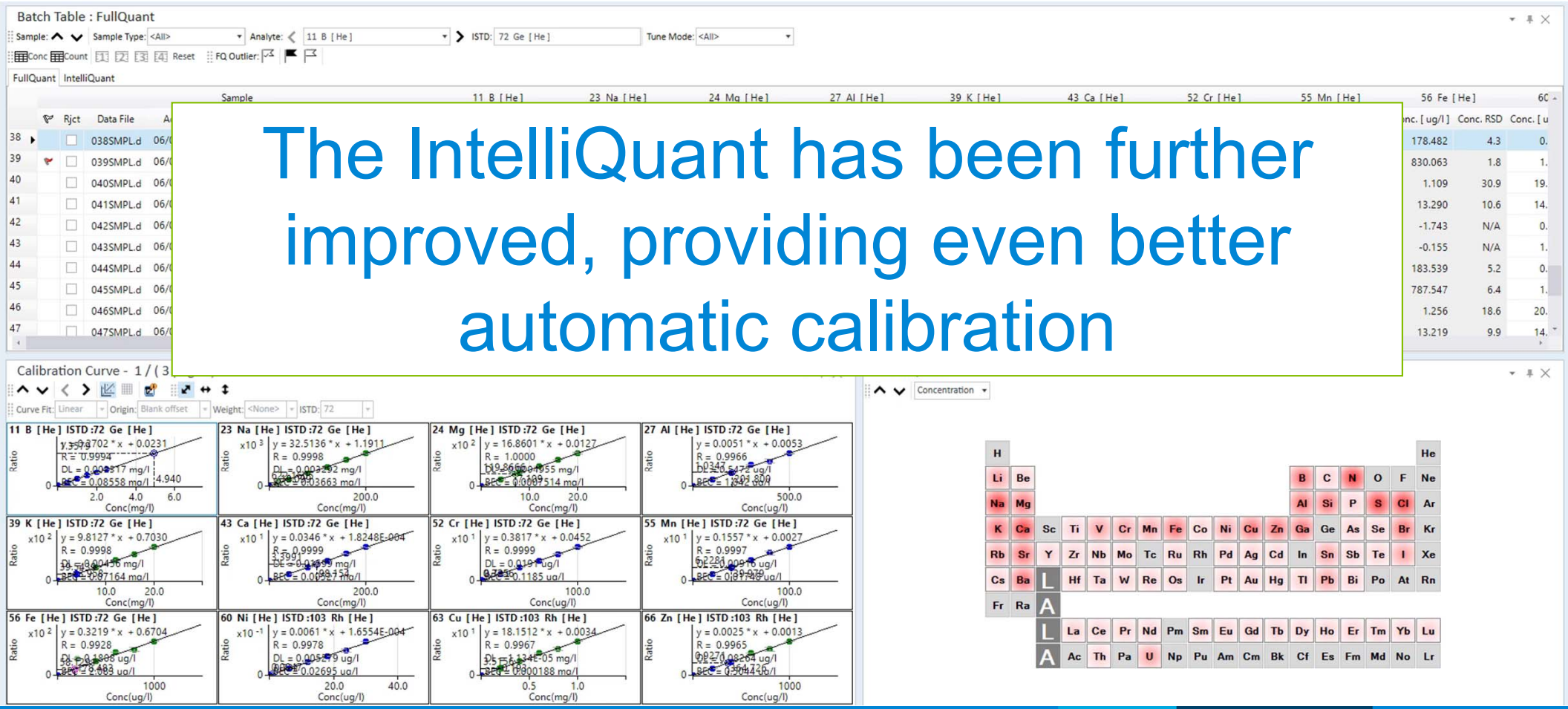
		Sample					11 B [He]		23 Na [He]		24 Mg [He]		27 Al [He]		39 K [He]		43 Ca [He]		52 Cr [He]		55 Mn [He]		56 Fe [He]		60
	Rjct	Data File	Acq. Date-Time	Type	Level	Sample Name	Conc. [mg/l]	Conc. RSD	Conc. [mg/l]	Conc. RSD	Conc. [mg/l]	Conc. RSD	Conc. [ug/l]	Conc. RSD	Conc. [mg/l]	Conc. RSD	Conc. [mg/l]	Conc. RSD	Conc. [ug/l]	Conc. RSD	Conc. [ug/l]	Conc. RSD	Conc. [ug/l]	Conc. RSD	Conc. [u
19		019CALS.d	06/02/18 11:44:31	CalStd	16	Cal 15 Minors	0.006	69.6	101.173	1.0	0.001	22.7	497.260	1.2	0.007	10.1	0.027	47.6	0.893	0.8	98.904	0.3	983.927	0.4	31.
20		020SMPL.d	06/02/18 11:45:37	Sample		Sample 4	5.059	0.5	19.612	0.3	7.344	2.9	210.329	1.9	4.160	0.6	102.397	0.1	0.791	1.0	41.331	0.7	188.643	1.8	0.
21		021SMPL.d	06/02/18 11:46:37	Sample		Sample 4 G	3.119	0.6	12.271	3.4	20.501	0.4	47.627	4.4	1.411	1.7	54.980	0.8	0.046	16.6	91.135	1.9	826.795	1.8	1.
22		022SMPL.d	06/02/18 11:47:37	Sample		Sample 5	0.219	4.0	19.439	1.3	7.259	2.7	12.358	9.6	4.083	2.5	93.471	2.0	64.527	2.4	0.143	25.2	1.541	11.8	21.
23		023SMPL.d	06/02/18 11:48:38	Sample		Sample 5 G	0.272	3.7	12.755	1.4	20.765	1.8	43.563	1.3	1.461	1.0	47.565	0.8	17.610	1.2	1.696	3.7	14.162	0.7	14.
24		024SMPL.d	06/02/18 11:49:42	Sample		Sample 21	0.071	8.9	75.048	0.3	1.971	2.0	0.451	62.8	0.239	1.0	18.307	1.4	0.702	2.1	0.030	31.7	-1.715	N/A	0.
25		025SMPL.d	06/02/18 11:50:44	Sample		Sample 24	0.247	4.7	14.758	2.7	4.887	2.8	3.289	14.3	2.243	0.9	110.789	1.2	0.069	14.9	0.066	55.1	0.032	74.0	1.
26		026SMPL.d	06/02/18 14:16:38	Sample		Loop Condition	-0.004	N/A	-0.002	N/A	0.000	N/A	-0.654	N/A	-0.002	N/A	-0.003	N/A	-0.018	N/A	-0.005	N/A	-1.737	N/A	-0.
27		027SMPL.d	06/02/18 14:17:41	Sample		Loop Condition	0.010	58.6	-0.003	N/A	0.000	329.6	-0.533	N/A	-0.002	N/A	0.006	192.9	-0.021	N/A	-0.006	N/A	-1.748	N/A	-0.
28		028SMPL.d	06/02/18 14:18:44	Sample		Loop Condition	-0.002	N/A	-0.004	N/A	0.000	N/A	-0.601	N/A	-0.003	N/A	0.002	430.8	-0.026	N/A	-0.006	N/A	-1.771	N/A	-0.
29		029SMPL.d	06/02/18 14:19:48	Sample		Sample 4	5.104	1.9	19.625	0.2	7.104	1.5	214.341	0.5	4.086	0.7	101.135	1.9	0.791	2.1	41.504	0.4	184.020	2.2	0.
30		030SMPL.d	06/02/18 14:20:48	Sample		Sample 4 G	3.125	1.9	11.960	1.1	19.764	1.0	46.076	2.9	1.370	0.5	53.228	1.9	0.044	16.3	89.738	1.7	819.933	1.1	1.
31		031SMPL.d	06/02/18 14:21:51	Sample		Sample 5	0.215	8.0	18.714	4.0	6.794	3.7	11.453	9.3	3.900	1.8	89.366	2.0	66.147	12.1	0.083	20.7	1.174	11.0	20.
32		032SMPL.d	06/02/18 14:22:52	Sample		Sample 5 G	0.245	13.7	11.595	8.6	19.605	10.4	40.351	10.2	1.338	10.2	43.709	10.3	16.590	10.8	1.615	11.9	13.091	11.2	13.
33		033SMPL.d	06/02/18 14:23:53	Sample		Sample 21	0.076	8.7	71.970	4.5	1.872	3.6	0.083	347.6	0.217	3.3	17.763	2.2	0.661	5.4	0.042	65.9	-1.752	N/A	0.
34		034SMPL.d	06/02/18 14:24:55	Sample		Sample 24	0.231	9.2	13.555	8.6	4.704	11.0	3.041	15.9	2.109	9.1	104.425	9.9	0.053	18.6	0.050	68.9	-0.171	N/A	1.
35		035SMPL.d	06/02/18 14:41:13	Sample		Loop Condition	0.008	114.2	-0.002	N/A	0.000	102.7	-0.366	N/A	-0.001	N/A	0.006	92.9	-0.023	N/A	-0.006	N/A	-1.754	N/A	-0.
36		036SMPL.d	06/02/18 14:42:16	Sample		Loop Condition	-0.004	N/A	-0.003	N/A	0.000	127.5	-0.637	N/A	-0.003	N/A	0.006	99.2	-0.025	N/A	-0.006	N/A	-1.771	N/A	-0.
37		037SMPL.d	06/02/18 14:43:19	Sample		Loop Condition	-0.002	N/A	-0.003	N/A	0.000	N/A	-0.406	N/A	-0.004	N/A	0.000	4122.5	-0.026	N/A	-0.007	N/A	-1.774	N/A	-0.
38		038SMPL.d	06/02/18 14:44:23	Sample		Sample 4	4.940	1.7	19.099	1.5	7.109	1.1	201.800	0.4	3.958	1.9	98.154	0.6	0.735	3.3	39.979	1.0	178.482	4.3	0.
39		039SMPL.d	06/02/18 14:45:23	Sample		Sample 4 G	3.164	0.8	12.313	2.0	20.330	2.7	47.278	4.2	1.408	2.1	54.770	1.7	0.029	22.7	91.915	2.4	830.063	1.8	1.
40		040SMPL.d	06/02/18 14:46:26	Sample		Sample 5	0.202	20.9	18.059	12.1	6.724	11.7	11.479	10.7	3.785	11.8	86.797	11.2	59.689	12.2	0.097	29.1	1.109	30.9	19.
41		041SMPL.d	06/02/18 14:47:27	Sample		Sample 5 G	0.268	18.1	11.778	11.6	19.894	10.9	41.267	11.1	1.345	10.1	44.596	10.6	16.603	10.2	1.627	8.8	13.290	10.6	14.
42		042SMPL.d	06/02/18 14:48:28	Sample		Sample 21	0.065	18.2	71.745	11.4	1.891	11.5	0.311	84.2	0.217	12.6	17.832	10.3	0.666	12.8	0.022	24.4	-1.743	N/A	0.
43		043SMPL.d	06/02/18 14:49:31	Sample		Sample 24	0.236	11.3	13.772	4.2	4.699	5.2	3.243	10.8	2.123	5.7	105.470	6.9	0.066	32.0	0.037	120.8	-0.155	N/A	1.
44		044SMPL.d	06/02/18 14:50:32	Sample		Sample 4	4.992	3.0	18.985	4.8	7.048	4.2	205.590	4.6	4.021	3.5	98.647	4.5	0.768	3.5	40.752	4.5	183.539	5.2	0.

Sample Insights with OCF



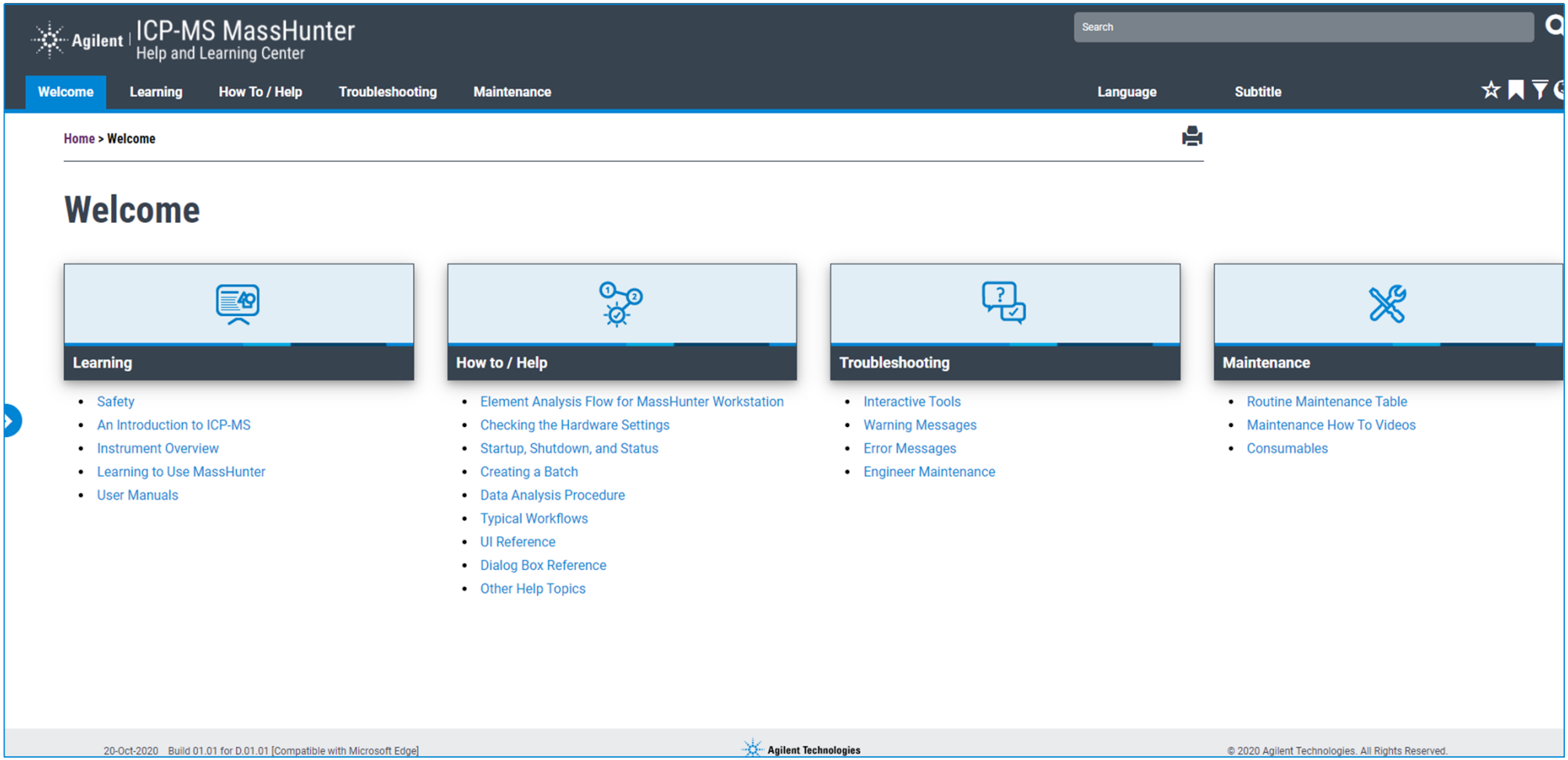
Filter and review data easily with OCF

Sample Insights with IntelliQuant

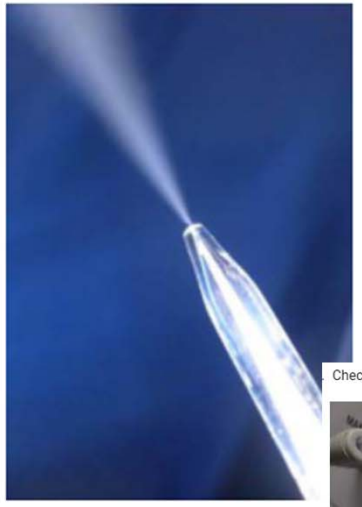


The IntelliQuant has been further improved, providing even better automatic calibration

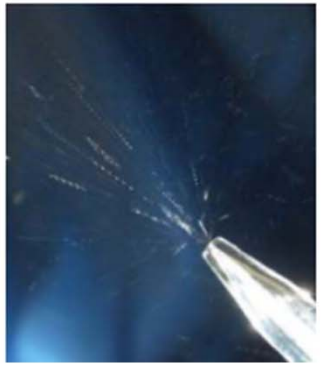
Help and Learning

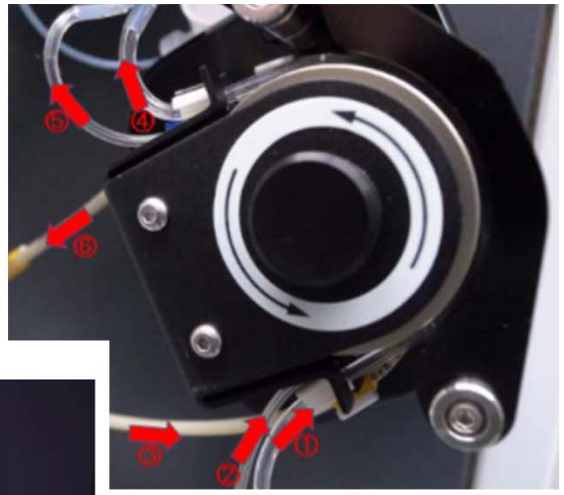


Help and Learning – Interactive Trouble-shooter!



Good: Good fine aerosol.

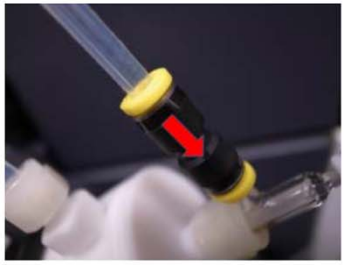




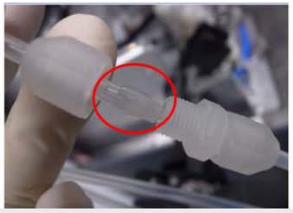
Check carrier gas connection.

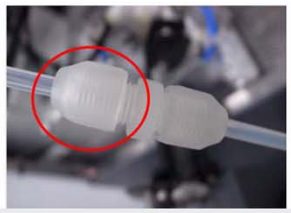
Push carrier gas line into connector.

Push carrier gas line into connector (In case of a glass nebulizer).



Push connector toward nebulizer (In case of a glass nebulizer).





MassHunter 5.1 Compatibility

7700

7800

7850

7900

8800

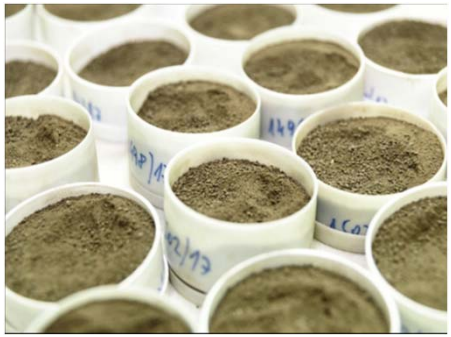
8900

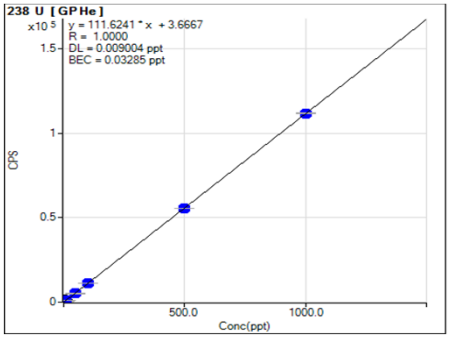
All features are not supported on all instruments

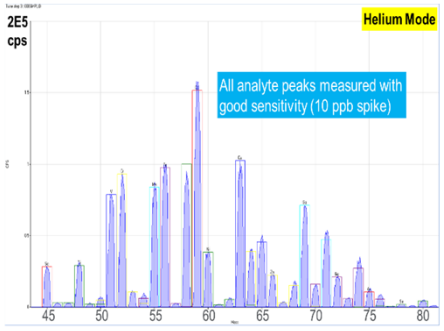
Consider Analytical Requirements in Routine Labs

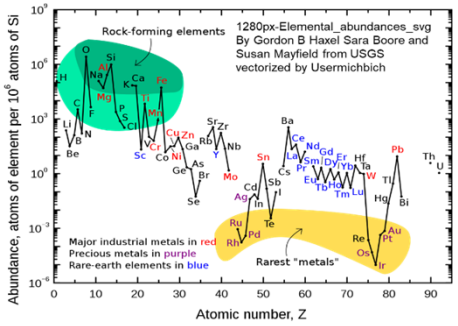
Key points for analytical workflow and commercial success

Samples to be analyzed	Detection limits needed	Confidence in results	Analytical range required
Quickly prepare and measure a wide range of different sample types	Consistently achieve the required DLs for critical, regulated trace analytes	Provide reliable, accurate results by controlling spectral overlaps	Measure majors and traces in a single, standard analytical run







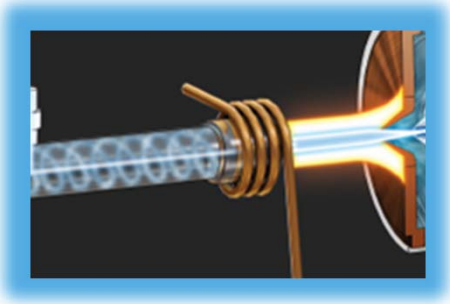


The Building Blocks of a Successful ICP-MS

Four unique components that determine ICP-MS analytical capability

Robust, matrix tolerant (low CeO) plasma

- Simplifies sample prep/custom dilution
- Reduces drift, errors and maintenance
- Removes the need for matrix matching

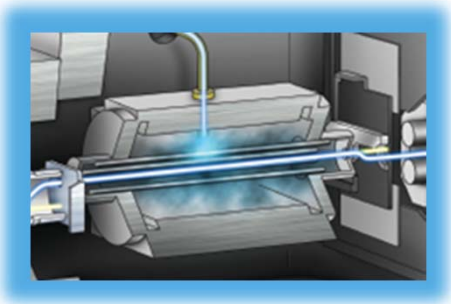


High ion transmission and sensitivity

- Consistent low DLs for all masses
- No need for element-specific tuning
- Flat mass response, accurate semiquant

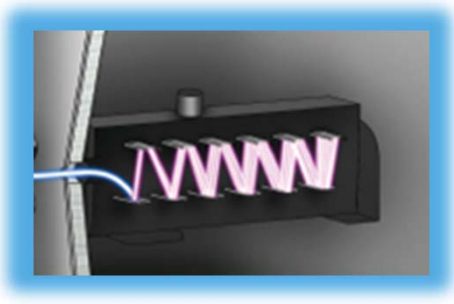
Effective helium collision mode

- Simple method to control interferences
- No need to screen for major elements
- Built in validation (2nd isotopes)



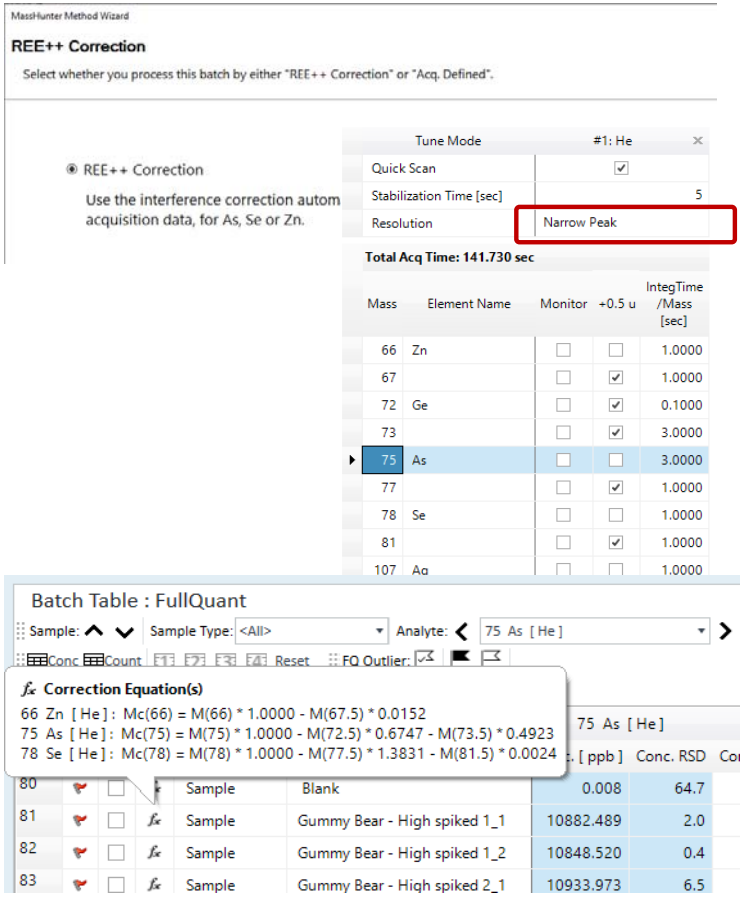
Wide dynamic range detector

- Easier setup; no custom calib ranges
- Majors/traces in one run; faster analysis
- Fewer over-range results; fewer reruns



How Does Half Mass Correction Work on Agilent 7850

Automated setup, automated analysis, superior hardware performance

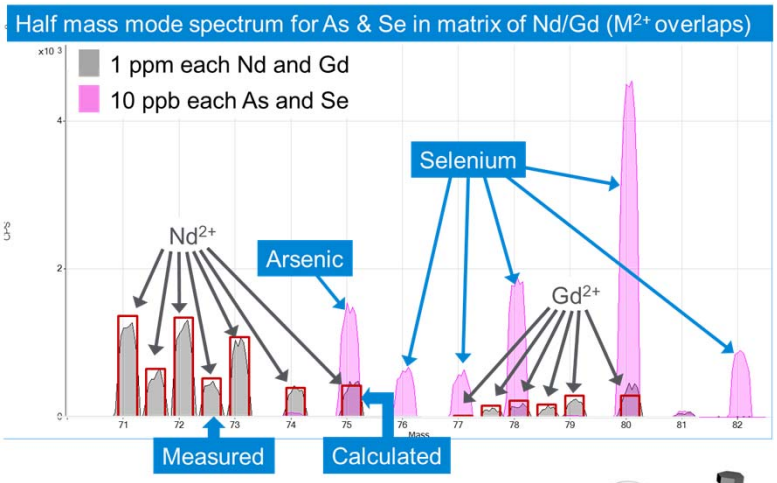


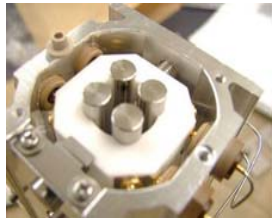
Agilent 7850 Method Wizard automates and simplifies REE++ correction setup

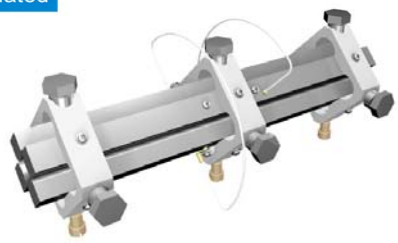
Wizard automatically selects appropriate acquisition masses for corrections

Wizard automatically optimizes quad settings for half-mass acquisition

Wizard automatically selects and applies correction equations







Unique, 3 MHz hyperbolic quadrupole maintains high sensitivity at increased resolution needed for half-mass correction


Thank You