

# Autotune Report



## System

Start time: 2019-08-08 14:55:04  
Instrument: iCAP RQ  
User: 942AI0075\fajuanGMP  
Template: SourceTune High Matrix  
Instrument Serial Number: RQ01490  
Solution: No solution specified  
End time: 2019-08-08 15:04:55  
Result: The autotuning was successful.

## Intensity Changes

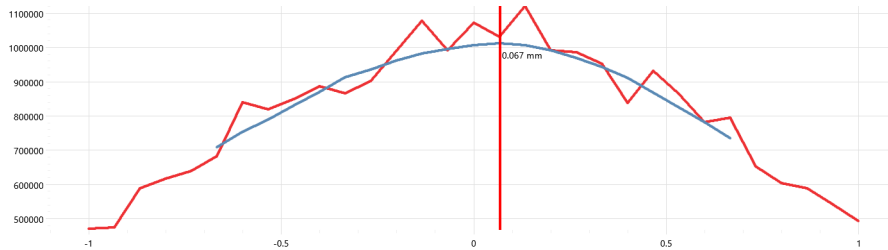
Analyte	Original result	Tuned result
115In	1020837	1026176
140Ce	1060561	1104539
140Ce.16O	21614	20603
7Li	315229	289008
59Co	611814	580642
238U	1401504	1635416
140Ce.16O/140Ce	0.0204	0.0187

## Control Changes

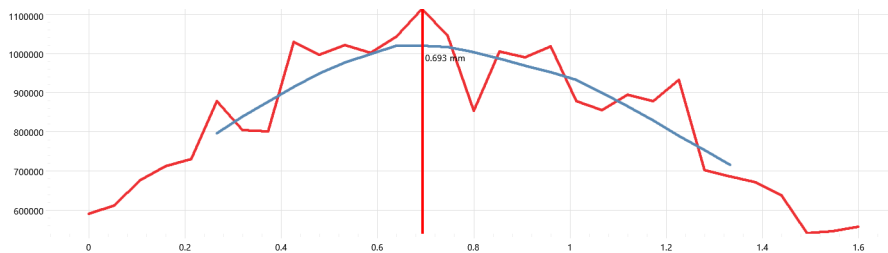
Control	Unit	Original value	Tuned value
Nebulizer Flow	[l/min]	1.01	0.9964
Torch Horizontal Position	[mm]	0	0
Torch Vertical Position	[mm]	0.75	0.77
Extraction Lens 2	[V]	-166	-200.7
CCT Focus Lens	[V]	3.6	3.6

## Graphical Results

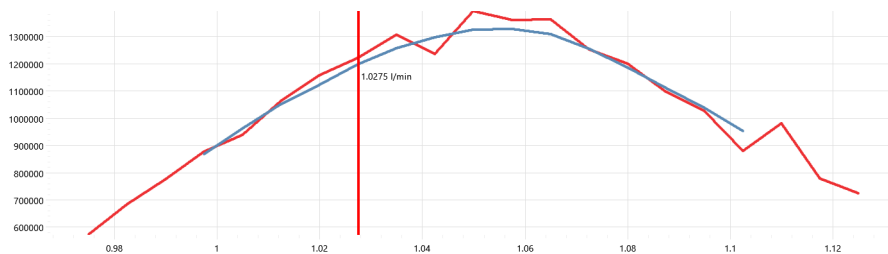
Stage name: Torch position  
Control: Torch Horizontal Position  
Analyte: 115In



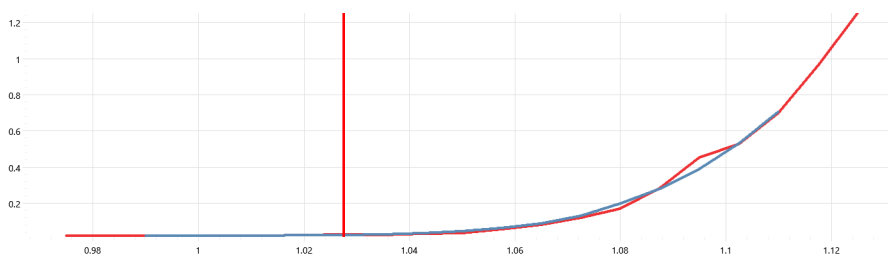
Stage name: Torch position  
Control: Torch Vertical Position  
Analyte: 115In



Stage name: Nebulizer (2.5% CeO)  
Control: Nebulizer Flow  
Analyte: 115In



Stage name: Nebulizer (2.5% CeO)  
Control: Nebulizer Flow  
Analyte: 140Ce.16O/140Ce

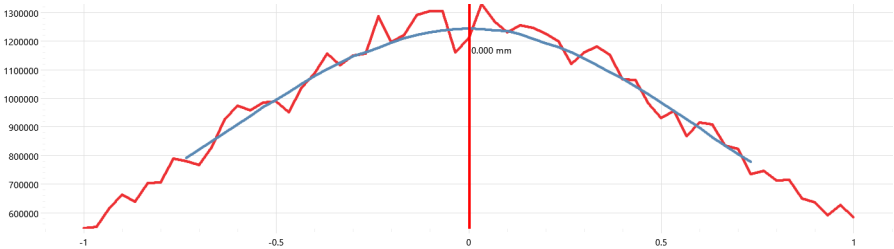


Stage name: Torch position again  
Control: Torch Horizontal Position

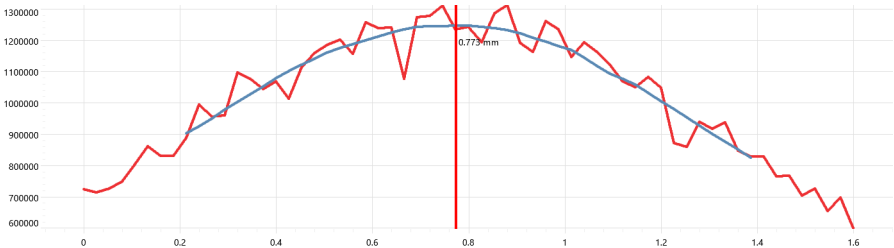
# Autotune Report



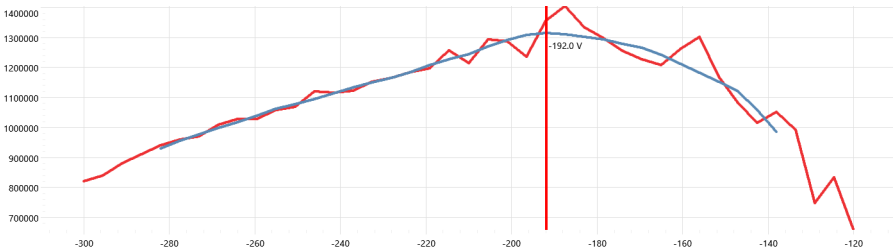
Analyte: 115In



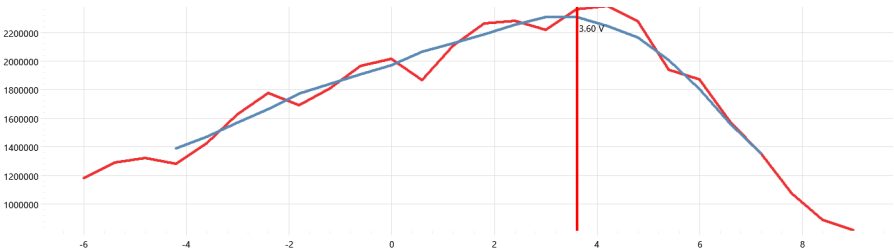
Stage name: Torch position again  
Control: Torch Vertical Position  
Analyte: 115In



Stage name: Extraction Lens 2  
Control: Extraction Lens 2  
Analyte: 115In

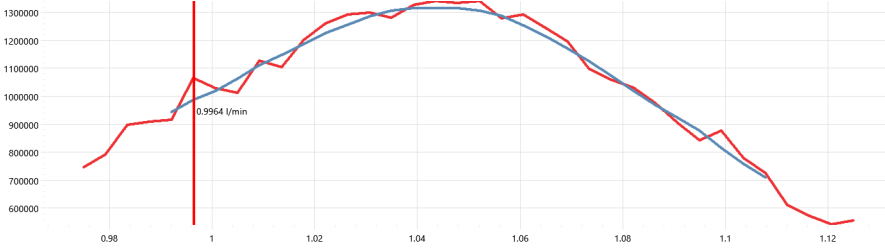


Stage name: CCT Focus Lens  
Control: CCT Focus Lens  
Analyte: 238U

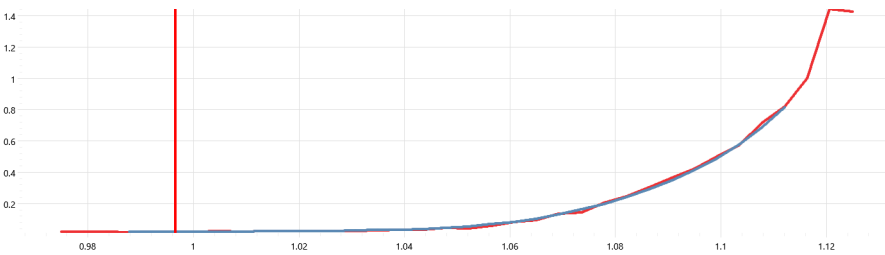


Stage name: Nebulizer (1.9 % CeO)  
Control: Nebulizer Flow  
Analyte: 115In

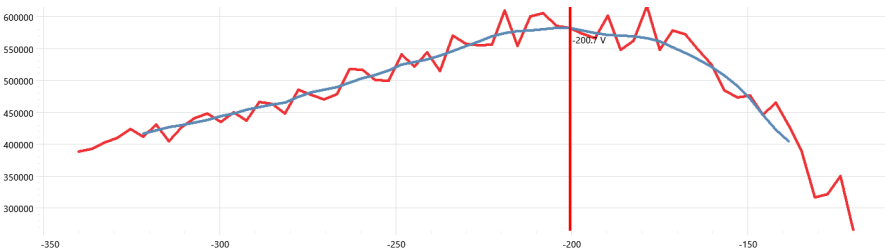
# Autotune Report



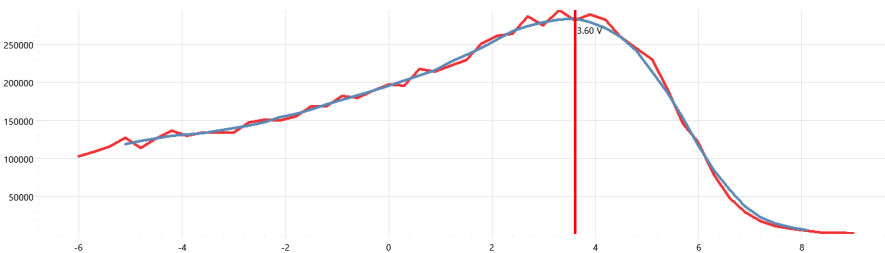
Stage name: Nebulizer (1.9 % CeO)  
Control: Nebulizer Flow  
Analyte: 140Ce.16O/140Ce



Stage name: Extraction Lens 2 @ final Plasma Temperature  
Control: Extraction Lens 2  
Analyte: 59Co

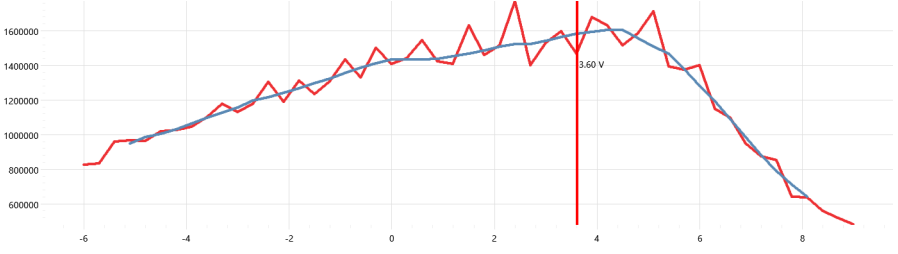


Stage name: CCT Focus Lens @ final Plasma Temperature  
Control: CCT Focus Lens  
Analyte: 7Li



Stage name: CCT Focus Lens @ final Plasma Temperature  
Control: CCT Focus Lens  
Analyte: 238U

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## Tune Settings

Parameter	Value
Additional Gas Flow 1	0
Additional Gas Flow 2	0
Additional Gas Flow 3	0
CCT Entry Lens	-106
Angular Deflection	-382.4
Deflection Entry Lens	-35
Extraction Lens 1 Polarity	0
Extraction Lens 1 Negative	0
Extraction Lens 1 Positive	0
Spray Chamber Temperature	2.7
Peristaltic Pump Speed	40
Cool Flow	14
Sampling Depth	5
Plasma Power	1550
Auxilliary Flow	0.8
Nebulizer Flow	0.996428571428573
Torch Horizontal Position	-1.38777878078145E-17
Torch Vertical Position	0.7733333333333333
Extraction Lens 2	-200.6666666666666
CCT Focus Lens	3.6
CCT Bias	-2
CCT Exit Lens	-160
Focus Lens	17.4
D1 Lens	-195.2
D2 Lens	-80
Quad Entry Lens	-32.2
Pole Bias	-1
CCT1 Flow	0
CCT1 Shut-Off Valve	0
Virtual CCT Mass to Dac Factor	130
Virtual CCT Mass to Dac Offset	-167.5
Virtual CCT Mass parameter b	0.65
Virtual CCT Mass Maximum Dac Limit Set	4095