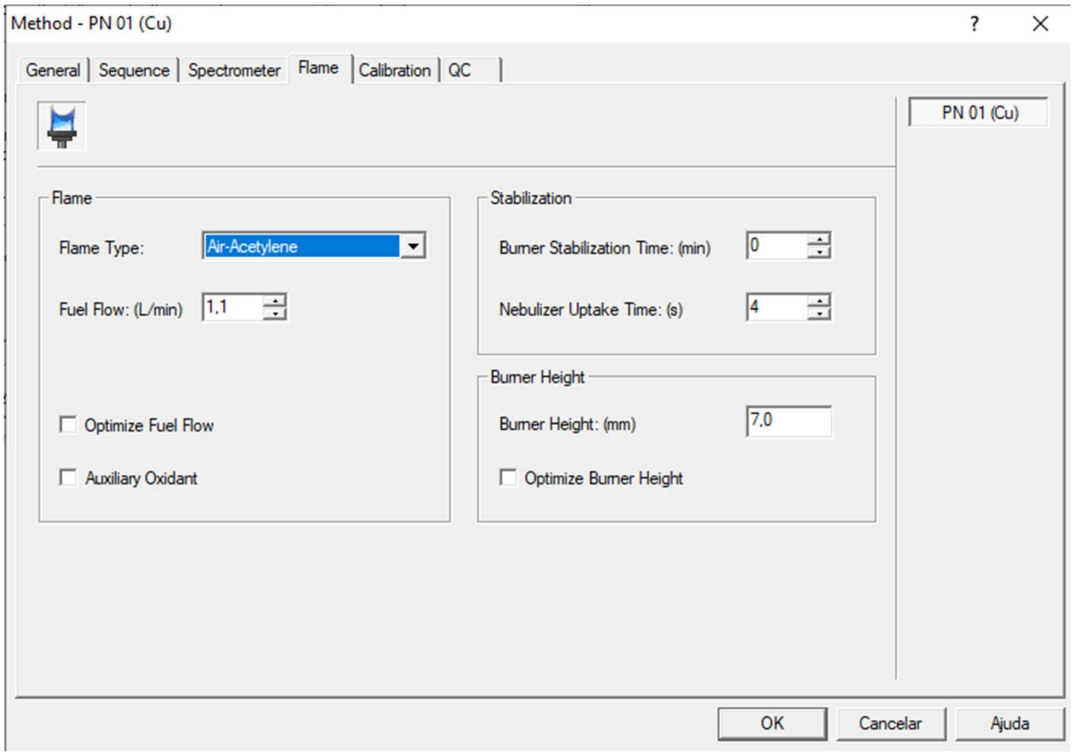
12/08/2024

ALS

AA ICE3300 THERMO SCIENTIFIC

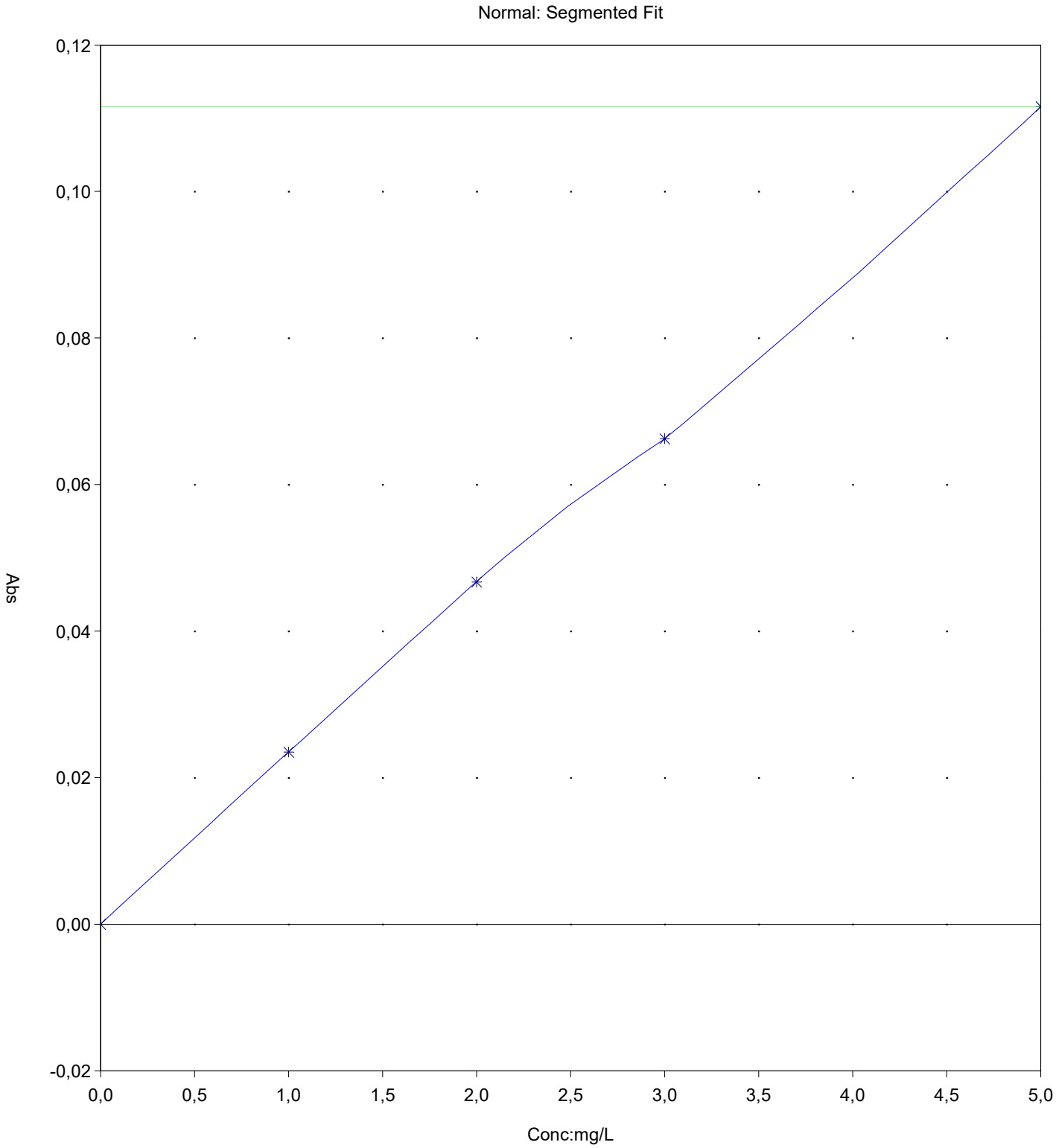
N°Sr.C103300078

COBRE - CONDIÇÕES DA CHAMA



Operator Name: Catharine.Sette
Report Date: 13/08/2024 15:52:43
Results File: C:\SOLAARM\DATA\RESULTS.SLR
Analysis Name: Cal Cu 15:46:29 13/08/2024

Thermo SOLAAR



Calibration Details

Conc	Signal
0,0000	-0,000
1,0000	0,023
2,0000	0,047
3,0000	0,066
5,0000	0,112

Min Curvature: -3%
Max Curvature: 9%

Characteristic Conc: 0,1873

Operator Name: Catharine.Sette
Report Date: 13/08/2024 15:51:35
Results File: C:\SOLAARM\DATA\RESULTS.SLR

General Parameters

Method : QPack Cobre
Operator : Pedro Nascimento
Instrument Mode: Flame
Autosampler : None
Dilution: None
Use SFI: No

Method Audit Trail

12/08/2024 11:29:50 Catharine.Sette:SASPFWX105
Record created
12/08/2024 12:12:31 Catharine.Sette:SASPFWX105
(Cu Lamp Current: 75) changed to (50)
(Cu Measurement Time: 4,0) changed to (3,0)
(Cu Optimize Fuel Flow: No) changed to (Yes)
13/08/2024 11:00:35 Catharine.Sette:SASPFWX105
(Cu Background Correction: D2) changed to (Off)
13/08/2024 15:46:29 Catharine.Sette:SASPFWX105
(Cu Wavelength: 324,8) changed to (324,7)
(Cu Lamp Current: 50) changed to (75)
(Cu Resamples: 3) changed to (1)
(Cu Burner Height: 7,0) changed to (5,1)
(Cu Optimize Fuel Flow: Yes) changed to (No)
(Cu Number of standards: 1) changed to (4)
(Cu Standard 1 3,5000) changed to (1,0000)
(Cu Standard 2 0,0000) changed to (2,0000)
(Cu Standard 3 0,0000) changed to (3,0000)
(Cu Standard 4 0,0000) changed to (5,0000)
(Cu Master Standard 3,5000) changed to (5,0000)

Analysis Details

Analysis Name: Cal Cu 13/08/2024
Spectrometer: iCE 3000 C103300078 v1,30
Operator Name: Pedro Nascimento

Current OQ Test Result: Not Available
Current PQ Test Result: Not Available

Description

Stds 1 2 3 5 ppm

Lamp Information

Element(s)	Serial Number	mA Hours
Cu	n/a	n/a

Deuterium Lamp Hours: 30,28

Sequence Table

Shared Standards: Yes

Action	Cu
Calibration	✓

Sample Details

Nominal Mass: 1,0000

No.	Sample Id	Sample Mass	Dilution Ratio
	No Samples in Sequence		

Analysis Audit Trail

13/08/2024 15:46:29 Catharine.Sette:SASPFWX105
Record created
13/08/2024 15:49:54 Catharine.Sette:SASPFWX105
Error MD147 - Activity manually aborted by user.

SOLAAR AA Report

Operator Name: Catharine.Sette
Report Date: 13/08/2024 15:51:35
Results File: C:\SOLAARM\DATA\RESULTS.SLR

OQ Test Result Summary

Warning: OQ Results not available.

Spectrometer Parameters - Cu

Element: Cu
Measurement Mode: Absorbance
Wavelength: 324,7nm
Bandpass: 0,5nm
Lamp Current: 75%
Background Correction: Off
High Resolution: Off
Optimize Spectrometer Parameters: No
Signal Type: Continuous
Resamples: Fast
Number Of Resamples: 1
Measurement Time: 3,0secs
Flier Mode: No
Use RSD Test: No

Flame Parameters - Cu

Flame Type: Air-C2H2
Fuel Flow: 1,0L/min
Auxilary Oxidant: Off
Nebuliser Uptake: 4secs
Burner Stabilization: 0mins
Optimize Fuel Flow: No
Burner Height: 5,1mm
Optimize Burner Height: No

Sampling Parameters - Cu

Sampling: None

Calibration Parameters - Cu

Calibration Mode: Normal
Line Fit: Segmented Curve
Use Stored Calibration: No
Concentration Units: mg/L
Scaled Units: mg/L
Scaling Factor: 1,0000
Excess Curvature Limits: -10% to +40%
Rescale Limit: 10,0%
Failure Action: Flag and Continue

Standard 1	1,0000	Standard 3	3,0000
Standard 2	2,0000	Standard 4	5,0000

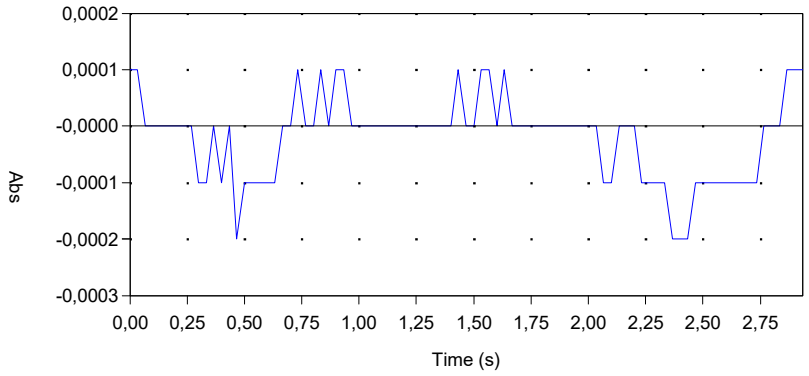
Element Audit Trail - Cu

No changes are recorded for this element

Solution Results - Cu

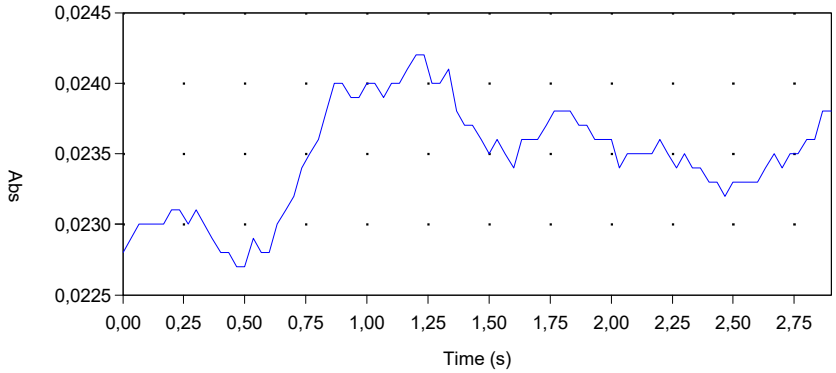
Sample ID	Signal	Rsd	Conc	Corrected Conc
	Abs	%	mg/L	mg/L
Cu Blank	**-0,000**		**0,0000**	

Resample: 1
Signal: -0,000
13/08/2024 15:47:59



Sample ID	Signal	Rsd	Conc	Corrected Conc
	Abs	%	mg/L	mg/L
Cu Standard 1	**0,023**		**1,0000**	

Resample: 1
Signal: 0,023
13/08/2024 15:48:34



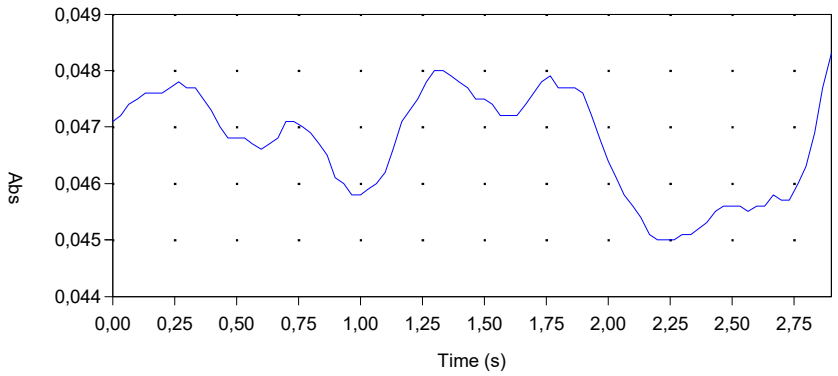
SOLAAR AA Report

Operator Name: Catharine.Sette
Report Date: 13/08/2024 15:51:35
Results File: C:\SOLAARM\DATA\RESULTS.SLR

Solution Results - Cu

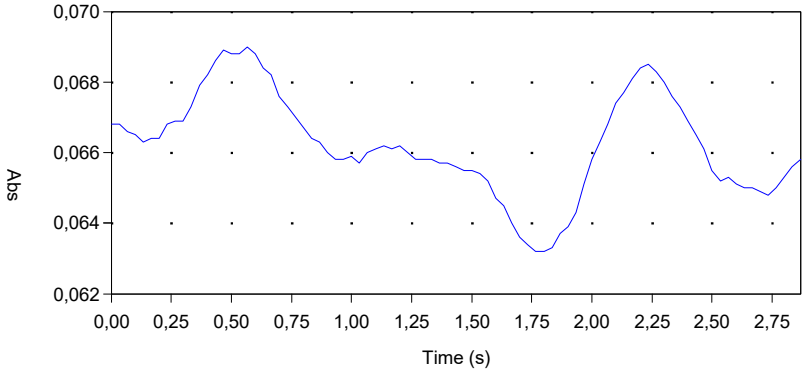
Sample ID	Signal	Rsd	Conc	Corrected Conc
	Abs	%	mg/L	mg/L
Cu Standard 2	**0,047**		**2,0000**	

Resample: 1
Signal: 0,047
13/08/2024 15:49:01



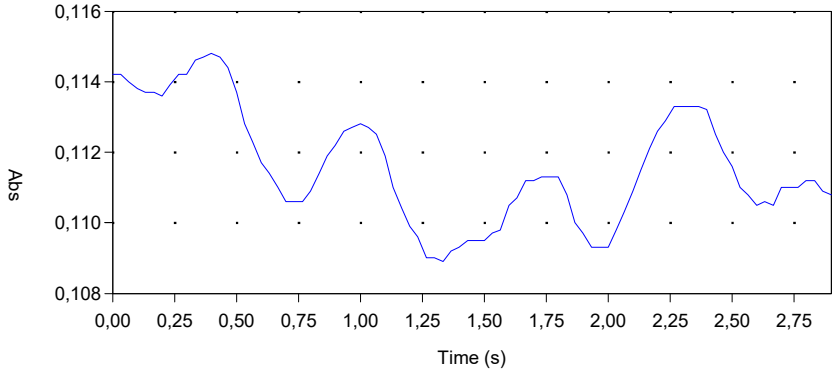
Sample ID	Signal	Rsd	Conc	Corrected Conc
	Abs	%	mg/L	mg/L
Cu Standard 3	**0,066**		**3,0000**	

Resample: 1
Signal: 0,066
13/08/2024 15:49:26



Sample ID	Signal	Rsd	Conc	Corrected Conc
	Abs	%	mg/L	mg/L
Cu Standard 4	**0,112**		**5,0000**	

Resample: 1
Signal: 0,112
13/08/2024 15:49:51



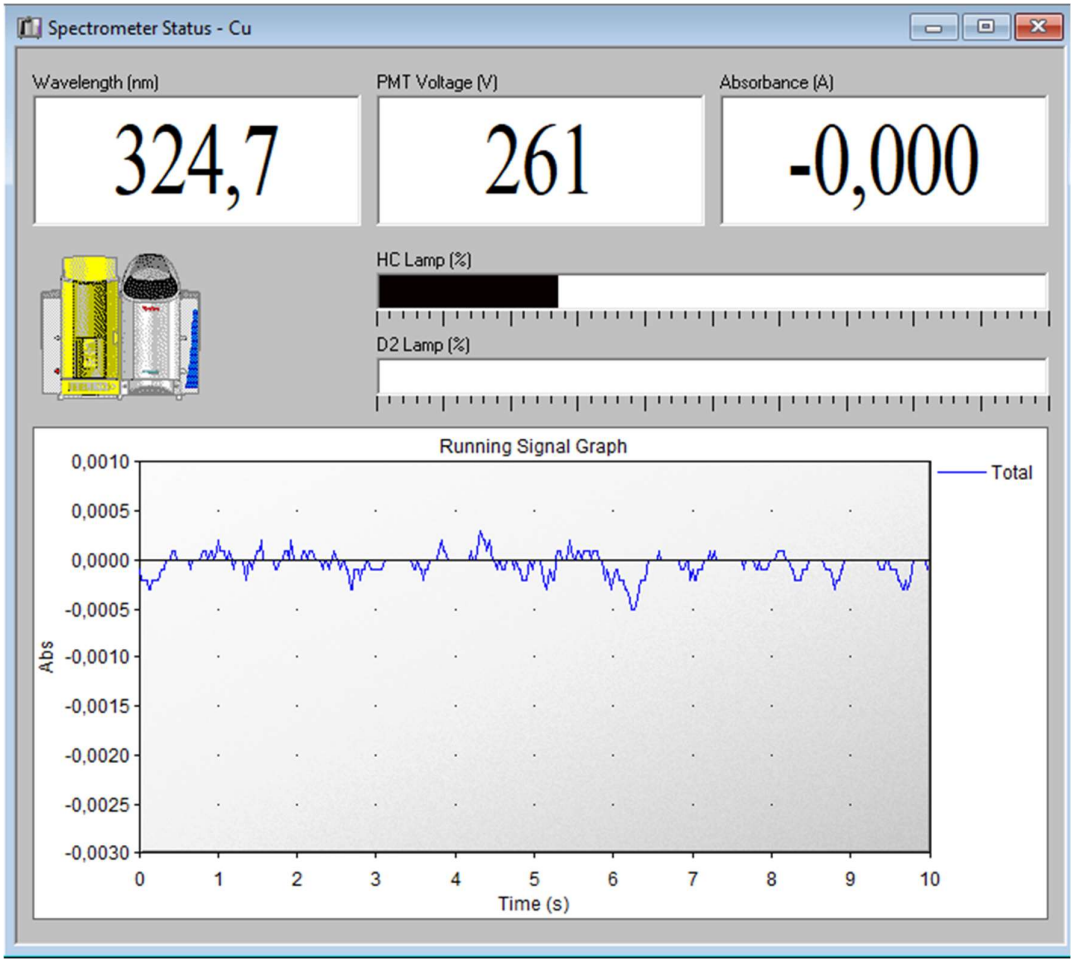
12/08/2024

ALS

AA ICE3300 THERMO SCIENTIFIC

N°Sr.C103300078

ENERGIA LÂMPADA CATODO OCO – COBRE Cu

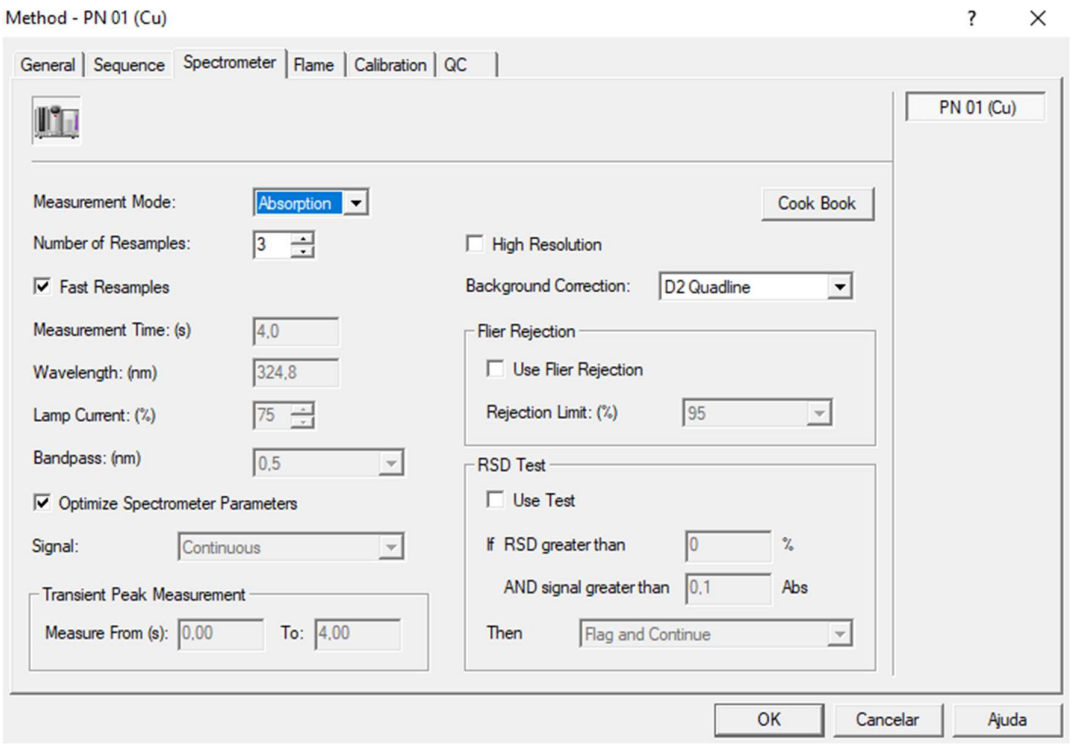


12/08/2024

ALS

AA ICE3300 THERMO SCIENTIFIC

N°Sr.C103300078



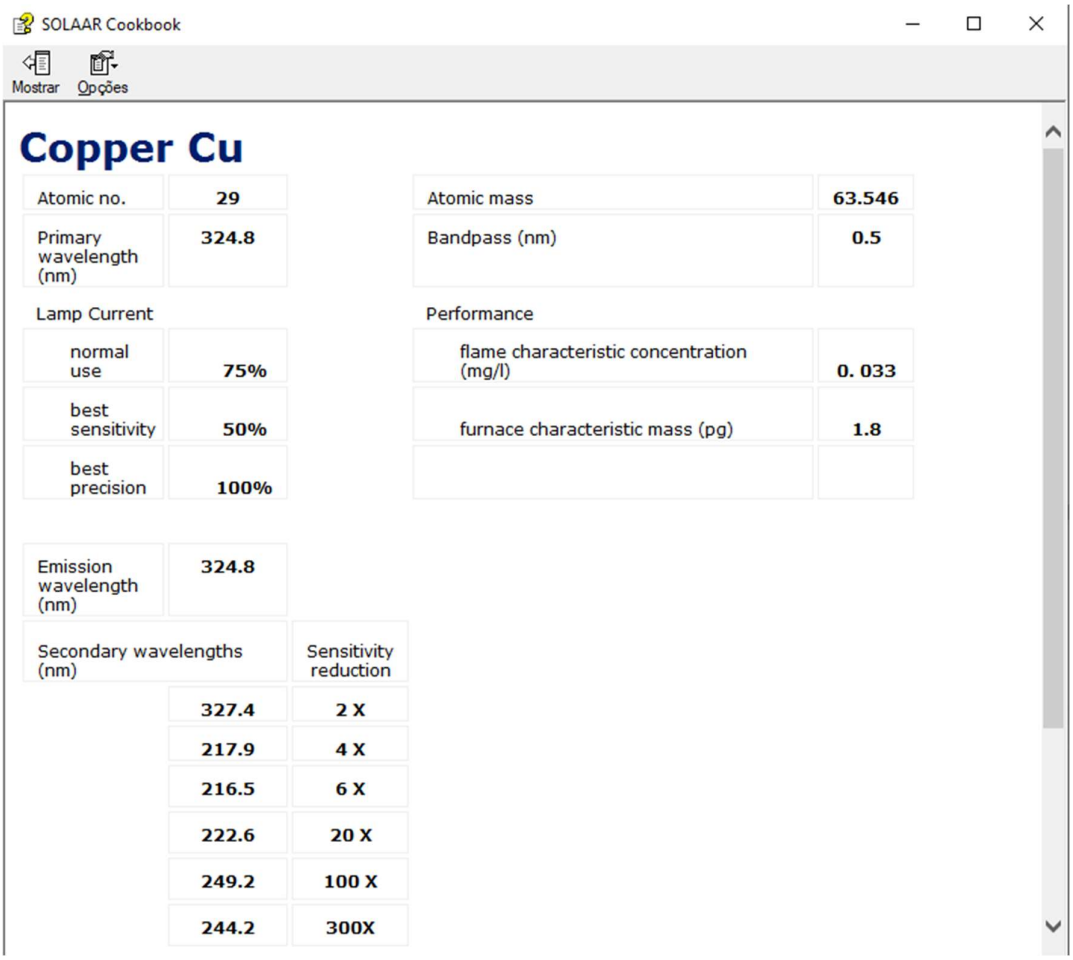
12/08/2024

ALS

AA ICE3300 THERMO SCIENTIFIC

N°Sr.C103300078

COOKBOOK - Cobre



Operator Name: Catharine.Sette
Report Date: 13/08/2024 14:24:36
Results File: C:\SOLAARM\DATA\RESULTS.SLR

General Parameters

Method : QPack Cobre
Operator : Pedro Nascimento
Instrument Mode: Flame
Autosampler : None
Dilution: None
Use SFI: No

Method Audit Trail

12/08/2024 11:29:50 Catharine.Sette:SASPFWX105
Record created
12/08/2024 12:12:31 Catharine.Sette:SASPFWX105
(Cu Lamp Current: 75) changed to (50)
(Cu Measurement Time: 4,0) changed to (3,0)
(Cu Optimize Fuel Flow: No) changed to (Yes)
13/08/2024 11:00:35 Catharine.Sette:SASPFWX105
(Cu Background Correction: D2) changed to (Off)
13/08/2024 14:15:34 Catharine.Sette:SASPFWX105
(Cu Wavelength: 324,8) changed to (324,7)
(Cu Lamp Current: 50) changed to (75)
(Cu Resamples: 3) changed to (10)
(Cu Burner Height: 7,0) changed to (4,3)
(Cu Optimize Fuel Flow: Yes) changed to (No)

Analysis Details

Analysis Name: Pedro Nascimento 13/08/2024
Spectrometer: iCE 3000 C103300078 v1,30
Operator Name: Pedro Nascimento

Current OQ Test Result: Not Available
Current PQ Test Result: Not Available

Lamp Information

Element(s)	Serial Number	mA Hours
Cu	n/a	n/a

Deuterium Lamp Hours: 30,28

Sequence Table

Shared Standards: Yes

Action	Cu
Calibration	✓

Sample Details

Nominal Mass: 1,0000

No.	Sample Id	Sample Mass	Dilution Ratio
	No Samples in Sequence		

Analysis Audit Trail

13/08/2024 14:15:34 Catharine.Sette:SASPFWX105
Record created

OQ Test Result Summary

Warning: OQ Results not available.

Spectrometer Parameters - Cu

Element: Cu
Measurement Mode: Absorbance
Wavelength: 324,7nm
Bandpass: 0,5nm
Lamp Current: 75%
Background Correction: Off
High Resolution: Off
Optimize Spectrometer Parameters: No
Signal Type: Continuous
Resamples: Fast
Number Of Resamples: 10
Measurement Time: 3,0secs
Flier Mode: No
Use RSD Test: No

SOLAAR AA Report

Operator Name: Catharine.Sette
Report Date: 13/08/2024 14:24:36
Results File: C:\SOLAARM\DATA\RESULTS.SLR

Flame Parameters - Cu

Flame Type: Air-C2H2
Fuel Flow: 1,1L/min
Auxilary Oxidant: Off
Nebuliser Uptake: 4secs
Burner Stabilization: 0mins
Optimize Fuel Flow: No
Burner Height: 4,3mm
Optimize Burner Height: No

Sampling Parameters - Cu

Sampling: None

Calibration Parameters - Cu

Calibration Mode: Normal
Line Fit: Segmented Curve
Use Stored Calibration: No
Concentration Units: mg/L
Scaled Units: mg/L
Scaling Factor: 1,0000
Excess Curvature Limits: -10% to +40%
Rescale Limit: 10,0%
Failure Action: Flag and Continue
Standard 1 3,5000

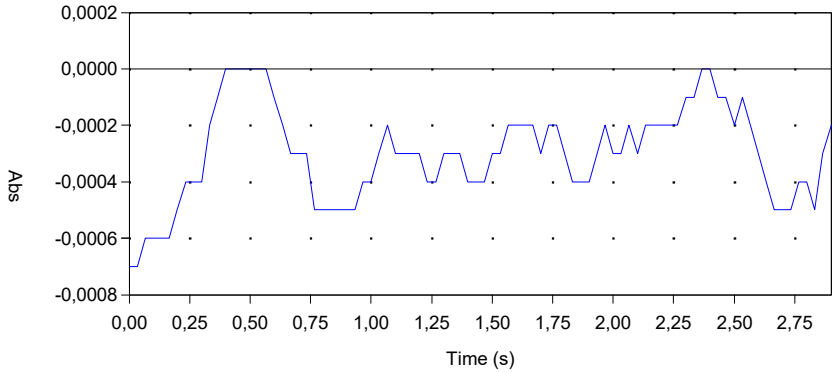
Element Audit Trail - Cu

No changes are recorded for this element

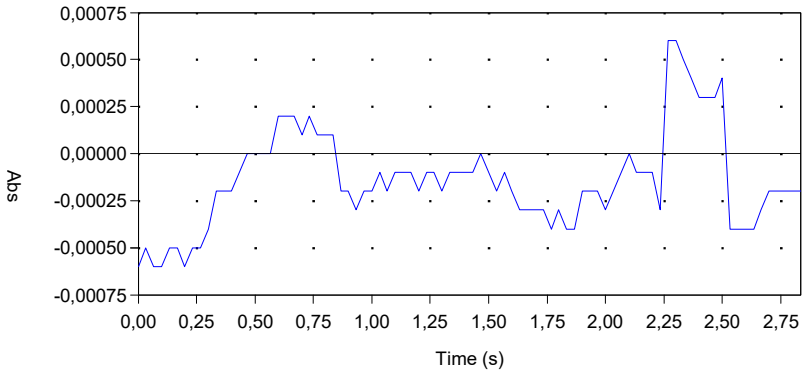
Solution Results - Cu

Sample ID	Signal	Rsd	Conc	Corrected Conc
	Abs	%	mg/L	mg/L
Cu Blank	**-0,000**	**26,2**		

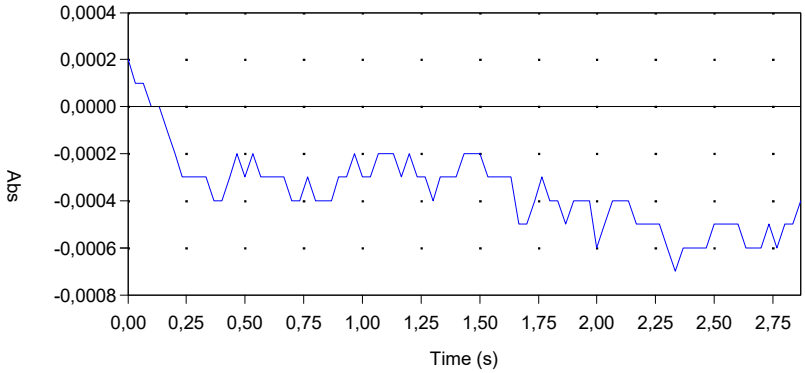
Resample: 1
Signal: -0,000
13/08/2024 14:16:21



Resample: 2
Signal: -0,000
13/08/2024 14:16:25



Resample: 3
Signal: -0,000
13/08/2024 14:16:28

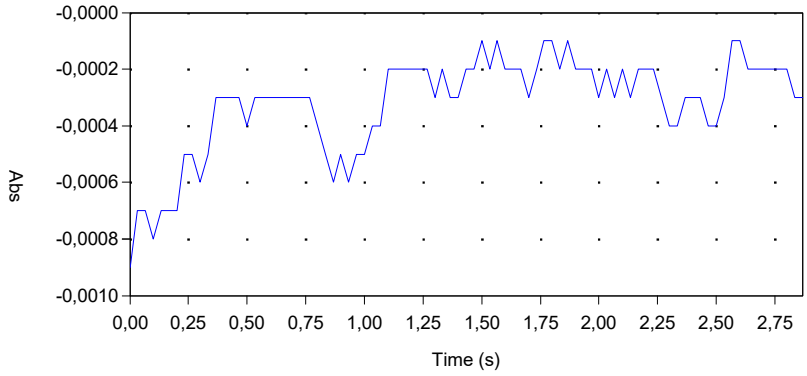


SOLAAR AA Report

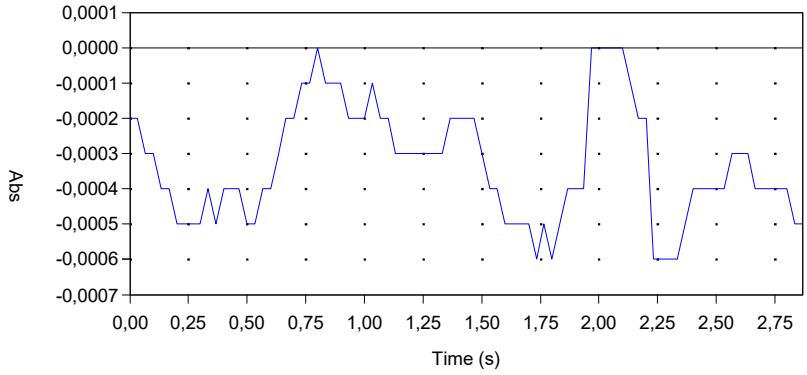
Operator Name: Catharine.Sette
Report Date: 13/08/2024 14:24:36
Results File: C:\SOLAARM\DATA\RESULTS.SLR

Solution Results - Cu

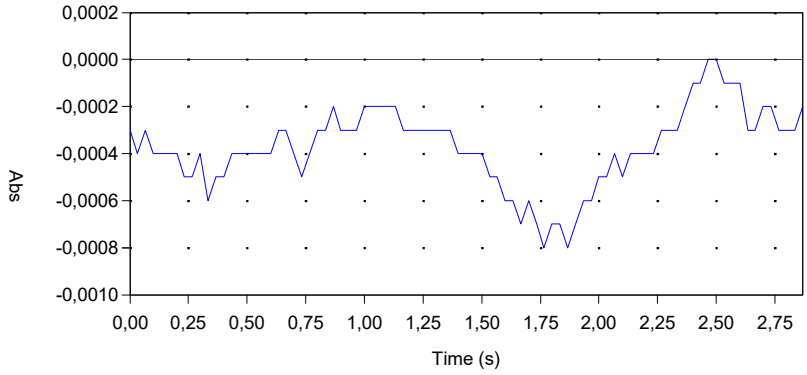
Resample: 4
Signal: -0,000
13/08/2024 14:16:31



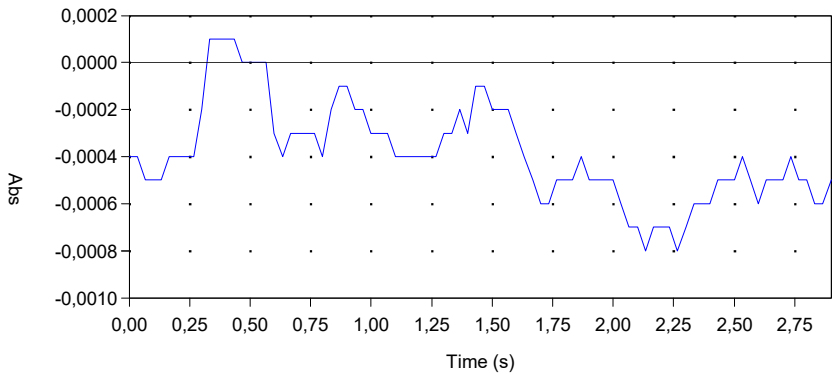
Resample: 5
Signal: -0,000
13/08/2024 14:16:34



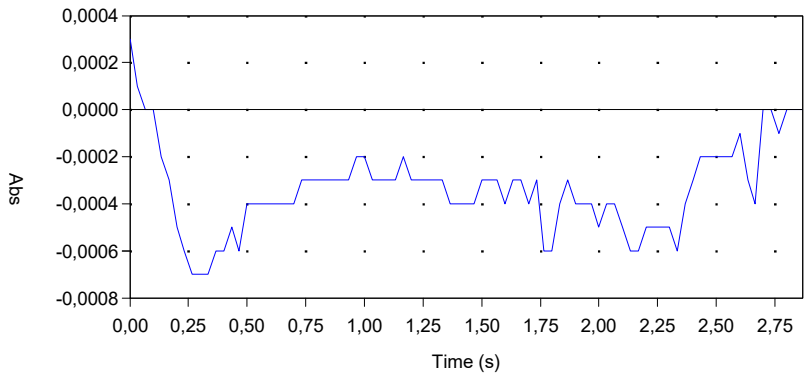
Resample: 6
Signal: -0,000
13/08/2024 14:16:38



Resample: 7
Signal: -0,000
13/08/2024 14:16:41



Resample: 8
Signal: -0,000
13/08/2024 14:16:44



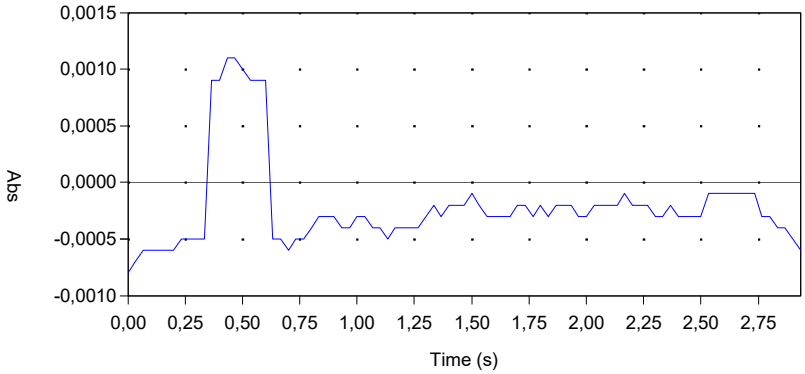
SOLAAR AA Report

Operator Name: Catharine.Sette *Report Date:* 13/08/2024 14:24:36

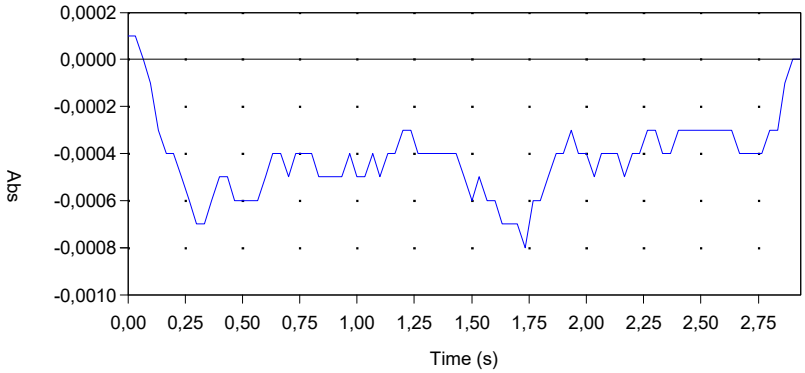
Results File: C:\SOLAARM\DATA\RESULTS.SLR

Solution Results - Cu

Resample: 9
Signal: -0,000
13/08/2024 14:16:47



Resample: 10
Signal: -0,000
13/08/2024 14:16:51



Operator Name: Catharine.Sette
Report Date: 13/08/2024 15:10:37
Results File: C:\SOLAARM\DATA\RESULTS.SLR

General Parameters

Method : QPack Cobre
Operator : Pedro Nascimento
Instrument Mode: Flame
Autosampler : None
Dilution: None
Use SFI: No

Method Audit Trail

12/08/2024 11:29:50 Catharine.Sette:SASPFWX105
Record created
12/08/2024 12:12:31 Catharine.Sette:SASPFWX105
(Cu Lamp Current: 75) changed to (50)
(Cu Measurement Time: 4,0) changed to (3,0)
(Cu Optimize Fuel Flow: No) changed to (Yes)
13/08/2024 11:00:35 Catharine.Sette:SASPFWX105
(Cu Background Correction: D2) changed to (Off)
13/08/2024 15:07:28 Catharine.Sette:SASPFWX105
(Cu Wavelength: 324,8) changed to (324,7)
(Cu Lamp Current: 50) changed to (75)
(Cu Resamples: 3) changed to (10)
(Cu Burner Height: 7,0) changed to (5,1)
(Cu Optimize Fuel Flow: Yes) changed to (No)
(Cu Standard 1 3,5000) changed to (5,0000)
(Cu Master Standard 3,5000) changed to (5,0000)

Analysis Details

Analysis Name: Repetibilidade Cobre 13/08/2024
Spectrometer: iCE 3000 C103300078 v1,30
Operator Name: Pedro Nascimento

Current OQ Test Result: Not Available
Current PQ Test Result: Not Available

Description

Cobre 5mg/l

Lamp Information

Element(s)	Serial Number	mA Hours
Cu	n/a	n/a

Deuterium Lamp Hours: 30,28

Sequence Table

Shared Standards: Yes

Action	Cu
Calibration	✓

Sample Details

Nominal Mass: 1,0000

No.	Sample Id	Sample Mass	Dilution Ratio
	No Samples in Sequence		

Analysis Audit Trail

13/08/2024 15:07:28 Catharine.Sette:SASPFWX105
Record created

OQ Test Result Summary

Warning: OQ Results not available.

SOLAAR AA Report

Operator Name: Catharine.Sette
Report Date: 13/08/2024 15:10:37
Results File: C:\SOLAARM\DATA\RESULTS.SLR

Spectrometer Parameters - Cu

Element: Cu
Measurement Mode: Absorbance
Wavelength: 324,7nm
Bandpass: 0,5nm
Lamp Current: 75%
Background Correction: Off
High Resolution: Off
Optimize Spectrometer Parameters: No
Signal Type: Continuous
Resamples: Fast
Number Of Resamples: 10
Measurement Time: 3,0secs
Flier Mode: No
Use RSD Test: No

Flame Parameters - Cu

Flame Type: Air-C2H2
Fuel Flow: 1,0L/min
Auxilary Oxidant: Off
Nebuliser Uptake: 4secs
Burner Stabilization: 0mins
Optimize Fuel Flow: No
Burner Height: 5,1mm
Optimize Burner Height: No

Sampling Parameters - Cu

Sampling: None

Calibration Parameters - Cu

Calibration Mode: Normal
Line Fit: Segmented Curve
Use Stored Calibration: No
Concentration Units: mg/L
Scaled Units: mg/L
Scaling Factor: 1,0000
Excess Curvature Limits: -10% to +40%
Rescale Limit: 10,0%
Failure Action: Flag and Continue
Standard 1 5,0000

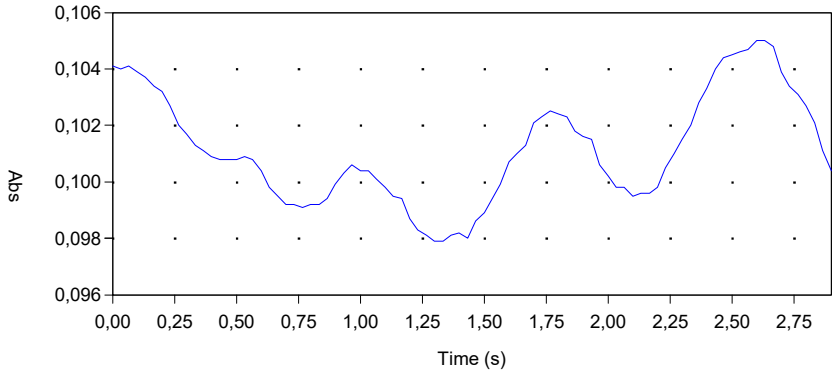
Element Audit Trail - Cu

No changes are recorded for this element

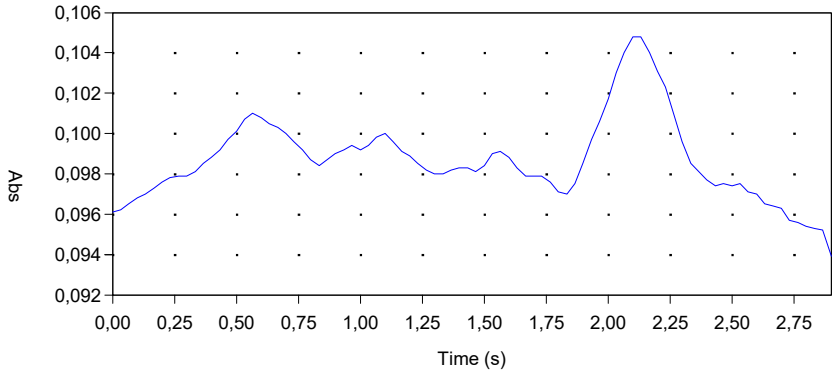
Solution Results - Cu

Sample ID	Signal	Rsd	Conc	Corrected Conc
	Abs	%	mg/L	mg/L
Cu Standard 1	**0,100**	**1,3**		

Resample: 1
Signal: 0,101
13/08/2024 15:08:36



Resample: 2
Signal: 0,099
13/08/2024 15:08:39

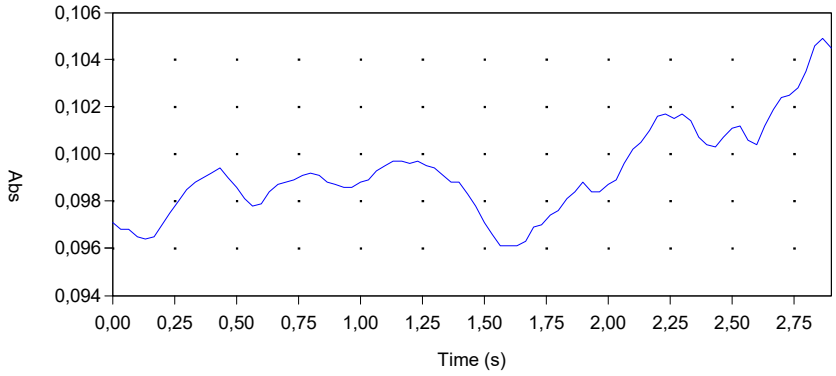


SOLAAR AA Report

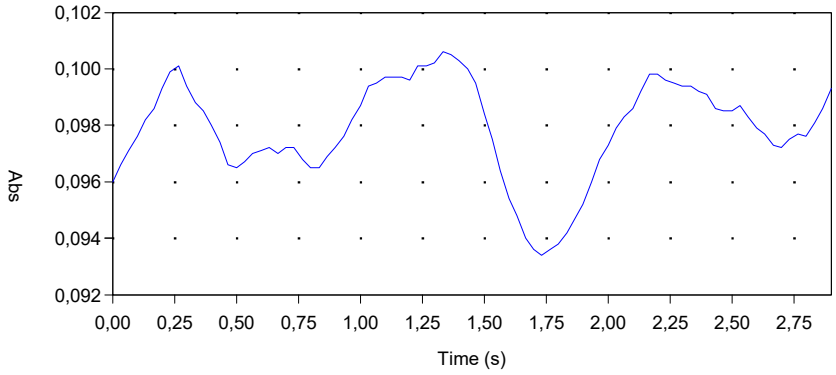
Operator Name: Catharine.Sette
Report Date: 13/08/2024 15:10:37
Results File: C:\SOLAARM\DATA\RESULTS.SLR

Solution Results - Cu

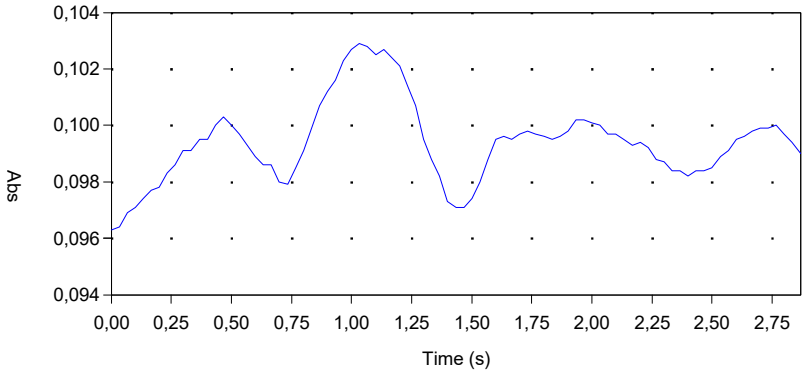
Resample: 3
Signal: 0,099
13/08/2024 15:08:42



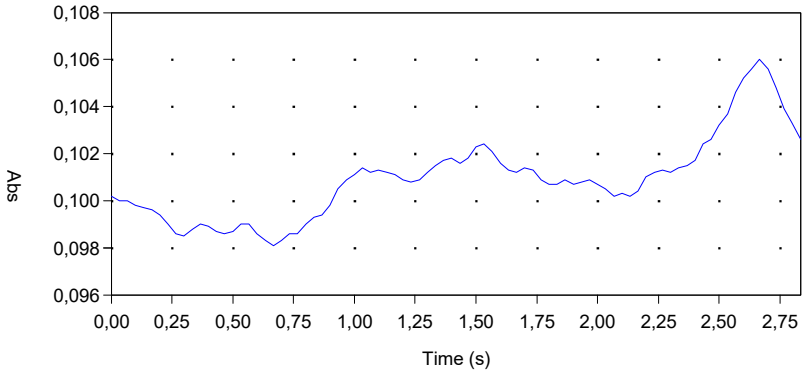
Resample: 4
Signal: 0,098
13/08/2024 15:08:46



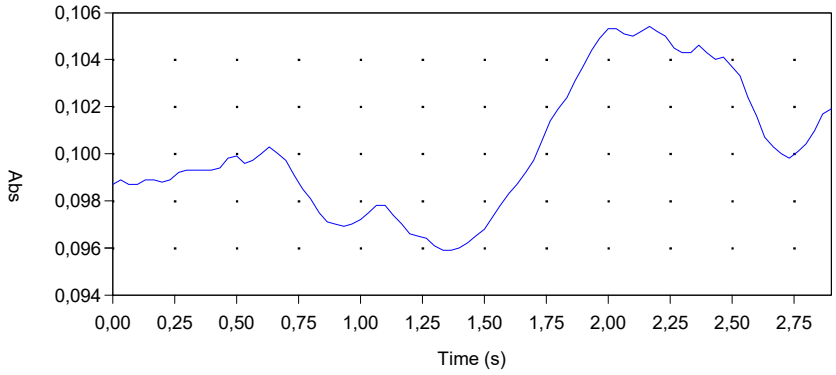
Resample: 5
Signal: 0,099
13/08/2024 15:08:49



Resample: 6
Signal: 0,101
13/08/2024 15:08:52



Resample: 7
Signal: 0,100
13/08/2024 15:08:55

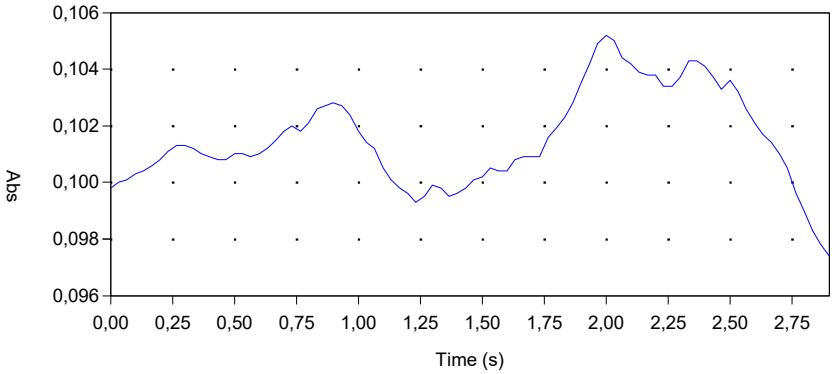


SOLAAR AA Report

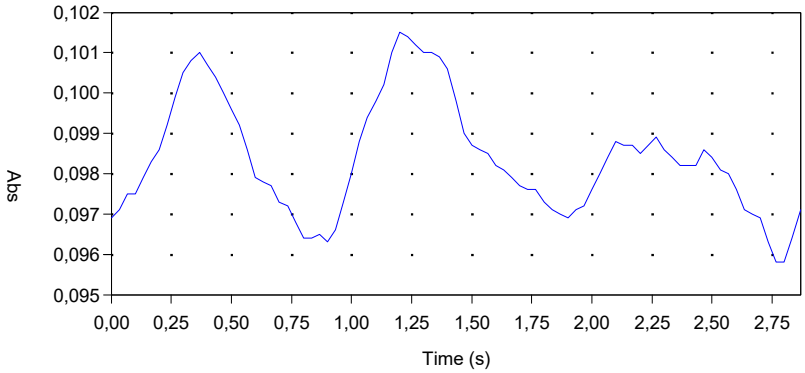
Operator Name: Catharine.Sette
Report Date: 13/08/2024 15:10:37
Results File: C:\SOLAARM\DATA\RESULTS.SLR

Solution Results - Cu

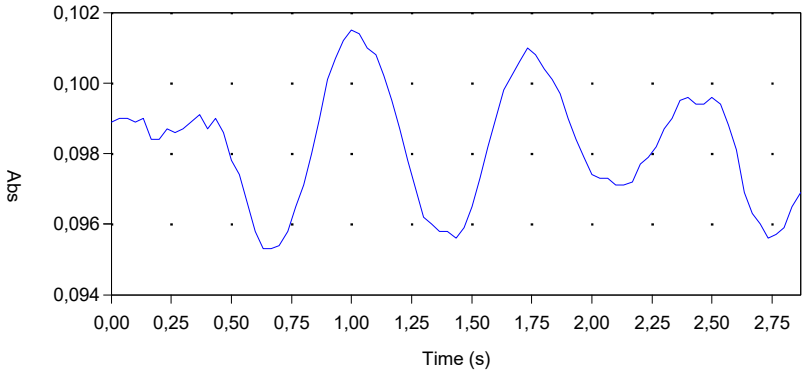
Resample: 8
Signal: 0,102
13/08/2024 15:08:59



Resample: 9
Signal: 0,098
13/08/2024 15:09:02



Resample: 10
Signal: 0,098
13/08/2024 15:09:05



12/08/2024

ALS

AA ICE3300 THERMO SCIENTIFIC

N°Sr.C103300078

Software SOLAAR Versão

