

Method Name: SeHGA Element: Se
Method Description: Sehga SM3113 B

Date: 10/03/2001

Technique: Furnace

Wavelength: 196.0 nm

Lamp Current: 0

Sample Info File: Untitled

Calibration Equation: Calc. Intercept: Linear

Slit Width: 2.00 nm

Energy: 59

Results Data Set:

DATE ANALYZED	10/3/01
TIME ANALYZED	3:00
ANALYST INITIALS	(MD)
REVIEWED BY	<i>[Signature]</i>

Element: Se Seq. No.: 37 AS Loc.: 36 Date: 10/03/2001

Sample ID: Calib Blank

μL dispensed: 10 from 36, 5 from 37, 20 from 36

Repl #	Sample Conc μg/L	Std Conc μg/L	Blk Corr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			-0.005	-0.002	0.009	0.017	0.013	14:53:04	No

Auto-zero performed.

Element: Se Seq. No.: 38 AS Loc.: 38 Date: 10/03/2001

Sample ID: S5

μL dispensed: 25 from 36, 5 from 37, 5 from 38

Repl #	Sample Conc μg/L	Std Conc μg/L	Blk Corr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.025	0.023	0.034	0.021	0.014	14:55:41	No

Standard number 1 applied. [5.00]

Correlation Coefficient: 1.0000

Slope: 0.0050

Element: Se Seq. No.: 39 AS Loc.: 38 Date: 10/03/2001

Sample ID: S10

μL dispensed: 20 from 36, 5 from 37, 10 from 38

Repl #	Sample Conc μg/L	Std Conc μg/L	Blk Corr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.044	0.042	0.062	0.026	0.022	14:58:23	No

Standard number 2 applied. [10.00]

Correlation Coefficient: 0.9972

Slope: 0.0044

Element: Se Seq. No.: 40 AS Loc.: 38 Date: 10/03/2001

Sample ID: S15

μL dispensed: 15 from 36, 5 from 37, 15 from 38

Repl #	Sample Conc μg/L	Std Conc μg/L	Blk Corr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.061	0.059	0.083	0.029	0.025	15:01:05	No

Standard number 3 applied. [15.00]

Correlation Coefficient: 0.9956

Slope: 0.0040

NOT DEP

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Element: Se Seq. No.: 41 AS Loc.: 38 Date: 10/03/2001

Sample ID: S20

μL dispensed: 10 from 36, 5 from 37, 20 from 38

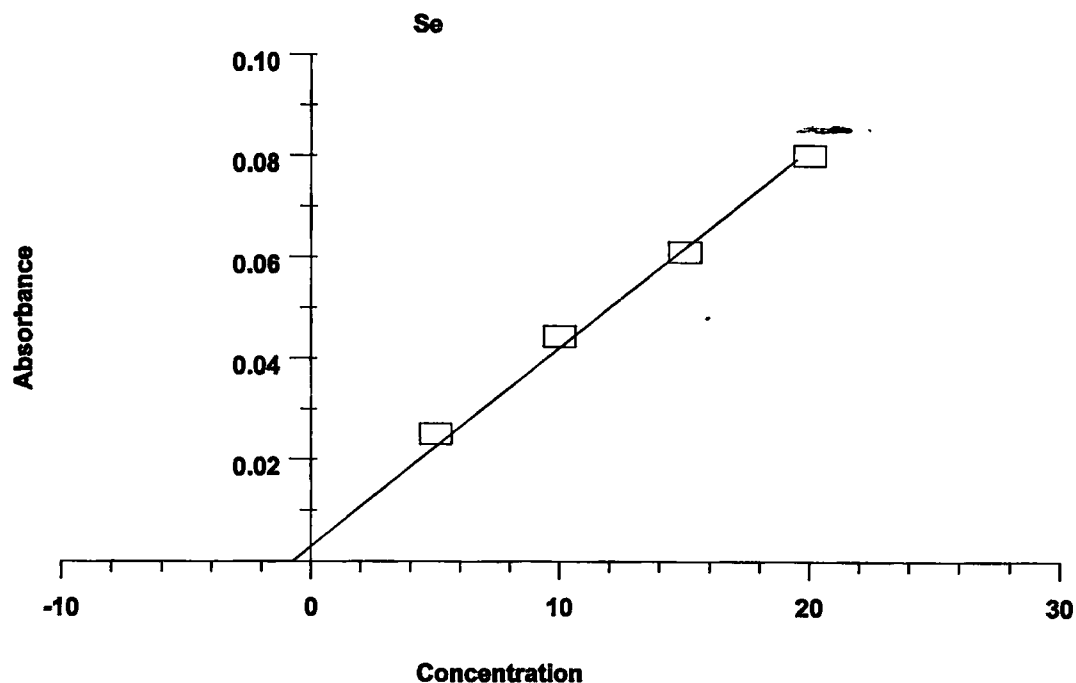
Repl #	SampleConc μg/L	StdConc μg/L	BlnkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.080	0.078	0.111	0.036	0.039	15:03:48	No

The calibration curve may not be linear.

Standard number 4 applied. [20.00]

Correlation Coefficient: 0.9972

Slope: 0.0039



Calibration data for Se

Standard ID	Mean Signal (Pk Area)	Entered Concentration (μg/L)	Calculated Concentration (μg/L)	Standard Deviation	%RSD
Calib Blank	0.000	----	-0.7330	----	----
S5	0.025	5.00	5.655	----	----
S10	0.044	10.00	10.58	----	----
S15	0.061	15.00	14.81	----	----
S20	0.080	20.00	19.69	----	----

Correlation Coefficient: 0.99715 Slope: 0.00392 Intercept: 0.003

Method Name: SeHGA Element: Se
 Method Description: Sehga SM3113 B

Date: 10/03/2001
 Technique: Furnace Calibration Equation: Calc. Intercept: Meth. of Add.
 Wavelength: 196.0 nm Slit Width: 2.00 nm
 Lamp Current: 0 Energy: 59
 Sample Info File: Untitled Results Data Set:

Element: Se Seq. No.: 42 AS Loc.: 36 Date: 10/03/2001
 Sample ID: Calib Blank
 µL dispensed: 20 from 36, 5 from 37, 20 from 36

Repl #	SampleConc µg/L	StndConc µg/L	BlkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.006	0.004	0.008	0.013	0.013	15:12:18	No

Auto-zero performed.

Element: Se Seq. No.: 43 AS Loc.: 6 Date: 10/03/2001
 Sample ID: 21786
 µL dispensed: 20 from 36, 5 from 37, 20 from 6

Repl #	SampleConc µg/L	StndConc µg/L	BlkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			-0.002	0.002	0.012	0.121	0.097	15:14:54	No

Element: Se Seq. No.: 44 AS Loc.: 38 Date: 10/03/2001
 Sample ID: S5
 µL dispensed: 15 from 36, 5 from 37, 20 from 6, 5 from 38

Repl #	SampleConc µg/L	StndConc µg/L	BlkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.012	0.016	0.033	0.055	0.025	15:17:42	No

Addition number 1 applied. [5.00]

Correlation Coefficient: 1.0000

Slope: 0.0024

Element: Se Seq. No.: 45 AS Loc.: 38 Date: 10/03/2001
 Sample ID: S10
 µL dispensed: 10 from 36, 5 from 37, 20 from 6, 10 from 38

Repl #	SampleConc µg/L	StndConc µg/L	BlkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.033	0.037	0.049	0.057	0.029	15:20:30	No

Addition number 2 applied. [10.00]

Correlation Coefficient: 0.9882

Slope: 0.0033

Element: Se Seq. No.: 46 AS Loc.: 38 Date: 10/03/2001
 Sample ID: S15
 µL dispensed: 5 from 36, 5 from 37, 20 from 6, 15 from 38

Repl #	SampleConc µg/L	StndConc µg/L	BlkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.044	0.047	0.071	0.106	0.050	15:23:19	No

Addition number 3 applied. [15.00]

Correlation Coefficient: 0.9917

Slope: 0.0030

=====

Element: Se Seq. No.: 47 AS Loc.: 38 Date: 10/03/2001

Sample ID: S20

μL dispensed: 5 from 37, 20 from 6, 20 from 38

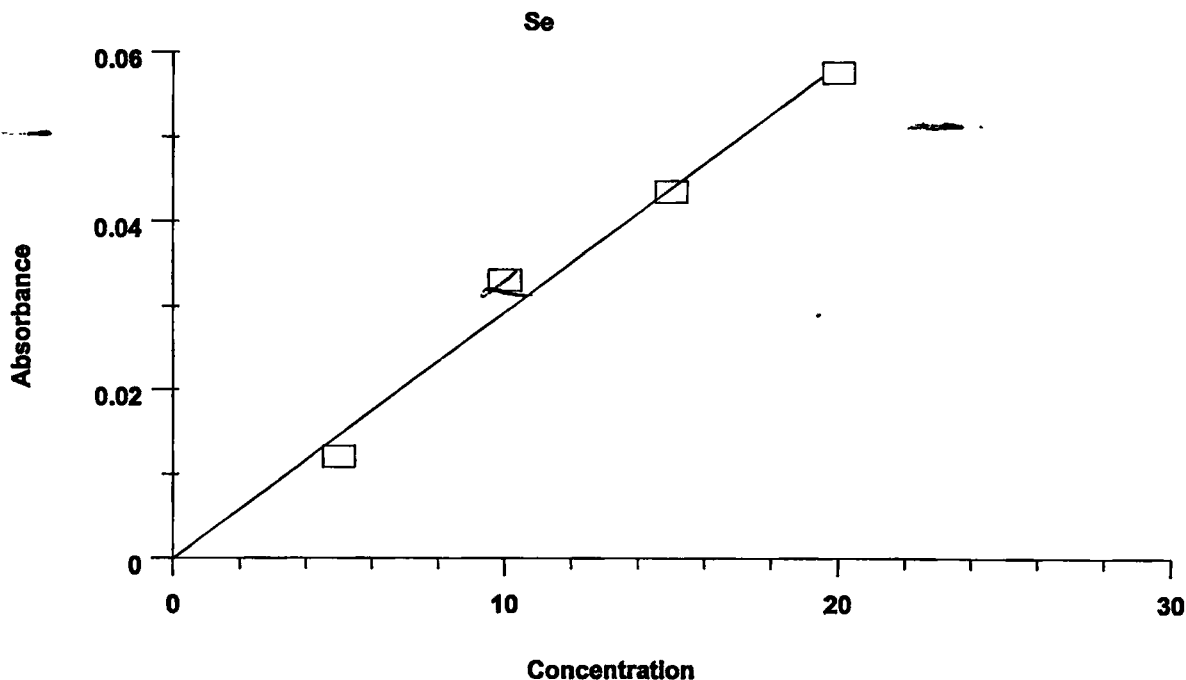
Repl #	SampleConc μg/L	StndConc μg/L	BlkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.058	0.061	0.097	0.085	0.039	15:25:57	No

The calibration curve may not be linear.

Addition number 4 applied. [20.00]

Correlation Coefficient: 0.9950

Slope: 0.0029



Calibration data for Se

Standard ID	Mean Signal (Pk Area)	Entered Concentration (μg/L)	Calculated Concentration (μg/L)	Standard Deviation	%RSD
Calib Blank	0.000	----	0.6527	----	----
S5	0.012	5.00	4.774	----	----
S10	0.033	10.00	11.91	----	----
S15	0.044	15.00	15.49	----	----
S20	0.058	20.00	20.29	----	----

Correlation Coefficient: 0.99501 Slope: 0.00293 Intercept: 0.000

[Se] Sample Concentration -0.6804 μg/L

P.0001

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The calibration curve has been edited.

=====
 Element: Se Seq. No.: 48 AS Loc.: 36 Date: 10/03/2001
 Sample ID: Calib Blank
 µL dispensed: 20 from 36, 5 from 37, 20 from 36
 =====

Repl #	SampleConc µg/L	StndConc µg/L	BlkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.001	0.005	0.012	0.028	0.016	15:32:07	No

Auto-zero performed.

=====
 Element: Se Seq. No.: 49 AS Loc.: 7 Date: 10/03/2001
 Sample ID: 21791
 µL dispensed: 20 from 36, 5 from 37, 20 from 7
 =====

Repl #	SampleConc µg/L	StndConc µg/L	BlkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			-0.003	0.001	0.011	0.110	0.044	15:34:43	No

=====
 Element: Se Seq. No.: 50 AS Loc.: 38 Date: 10/03/2001
 Sample ID: S5
 µL dispensed: 15 from 36, 5 from 37, 20 from 7, 5 from 38
 =====

Repl #	SampleConc µg/L	StndConc µg/L	BlkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.005	0.010	0.015	0.188	0.107	15:37:31	No

Addition number 1 applied. [5.00]

Correlation Coefficient: 1.0000

Slope: 0.0010

=====
 Element: Se Seq. No.: 51 AS Loc.: 38 Date: 10/03/2001
 Sample ID: S10
 µL dispensed: 10 from 36, 5 from 37, 20 from 7, 10 from 38
 =====

Repl #	SampleConc µg/L	StndConc µg/L	BlkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.011	0.016	0.026	0.272	0.286	15:40:20	No

Addition number 2 applied. [10.00]

Correlation Coefficient: 0.9989

Slope: 0.0011

=====
 Element: Se Seq. No.: 52 AS Loc.: 38 Date: 10/03/2001
 Sample ID: S15
 µL dispensed: 5 from 36, 5 from 37, 20 from 7, 15 from 38
 =====

Repl #	SampleConc µg/L	StndConc µg/L	BlkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.025	0.029	0.040	0.176	0.067	15:43:09	No

Addition number 3 applied. [15.00]

Correlation Coefficient: 0.9690

Slope: 0.0016

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Element: Se Seq. No.: 53 AS Loc.: 38 Date: 10/03/2001

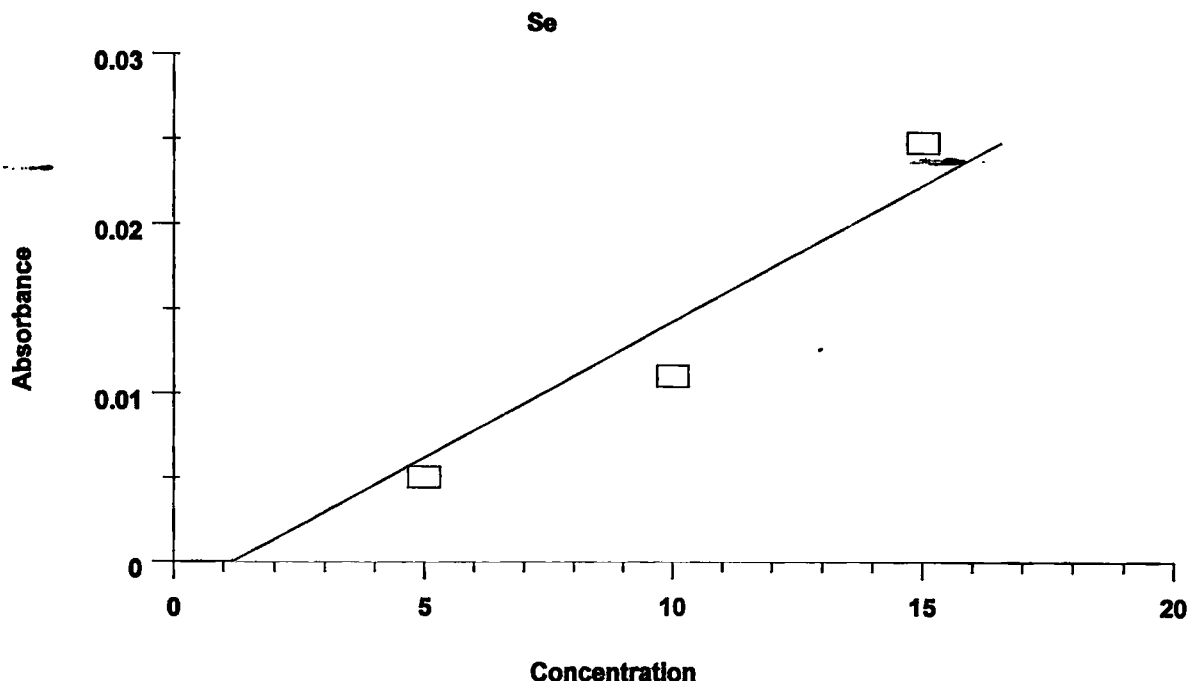
Sample ID: S20

μL dispensed: 5 from 37, 20 from 7, 20 from 38

Repl #	SampleConc μg/L	StndConc μg/L	BlkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.024	0.029	0.036	0.254	0.243	15:45:47	No

No calibration because standard abs. and conc. values are not in the same order.

Addition number 4 not applied. [-----]



Calibration data for Se

Standard ID	Mean Signal (Pk Area)	Entered Concentration (μg/L)	Calculated Concentration (μg/L)	Standard Deviation	%RSD
Calib Blank	0.000	----	2.010	----	----
S5	0.005	5.00	5.171	----	----
S10	0.011	10.00	8.898	----	----
S15	0.025	15.00	17.43	----	----

Correlation Coefficient: 0.96901 Slope: 0.00161 Intercept: -0.002

[Se] Sample Concentration -3.141 μg/L

=====
 Element: Se Seq. No.: 54 AS Loc.: 36 Date: 10/03/2001

Sample ID: Calib Blank

* μ L dispensed: 20 from 36, 5 from 37, 20 from 36

Repl #	SampleConc μ g/L	StndConc μ g/L	BlkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			-0.002	0.002	0.010	0.057	0.027	16:04:01	No

Auto-zero performed.

=====
 Element: Se Seq. No.: 55 AS Loc.: 7 Date: 10/03/2001

Sample ID: 21791

μ L dispensed: 20 from 36, 5 from 37, 20 from 7

Repl #	SampleConc μ g/L	StndConc μ g/L	BlkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.000	0.003	0.013	0.064	0.028	16:06:37	No

=====
 Element: Se Seq. No.: 56 AS Loc.: 38 Date: 10/03/2001

Sample ID: S5

μ L dispensed: 15 from 36, 5 from 37, 20 from 7, 5 from 38

Repl #	SampleConc μ g/L	StndConc μ g/L	BlkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.016	0.018	0.031	0.057	0.022	16:09:25	No

Addition number 1 applied. [5.00]

Correlation Coefficient: 1.0000

Slope: 0.0031

=====
 Element: Se Seq. No.: 57 AS Loc.: 38 Date: 10/03/2001

Sample ID: S10

μ L dispensed: 10 from 36, 5 from 37, 20 from 7, 10 from 38

Repl #	SampleConc μ g/L	StndConc μ g/L	BlkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.021	0.024	0.043	0.106	0.051	16:12:14	No

Addition number 2 applied. [10.00]

Correlation Coefficient: 0.9624

Slope: 0.0021

=====
 Element: Se Seq. No.: 58 AS Loc.: 38 Date: 10/03/2001

Sample ID: S15

μ L dispensed: 5 from 36, 5 from 37, 20 from 7, 15 from 38

Repl #	SampleConc μ g/L	StndConc μ g/L	BlkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.043	0.045	0.076	0.060	0.030	16:15:02	No

Addition number 3 applied. [15.00]

Correlation Coefficient: 0.9763

Slope: 0.0027

Element: Se Seq. No.: 59 AS Loc.: 38 Date: 10/03/2001

Sample ID: S20

μL dispensed: 5 from 37, 20 from 7, 20 from 38

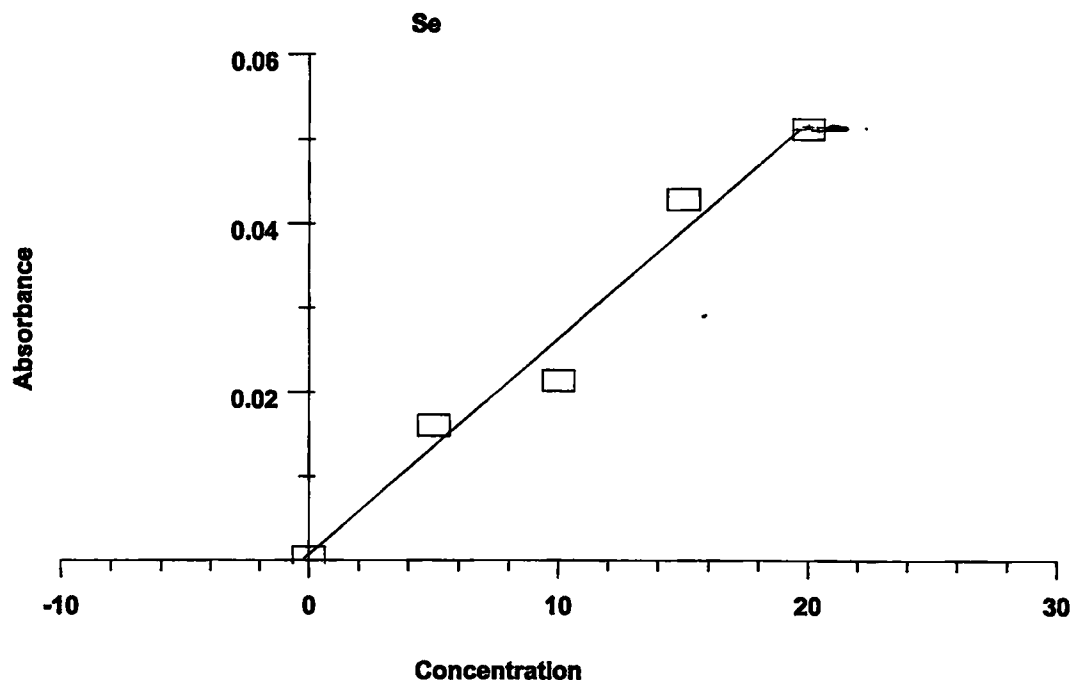
Repl #	SampleConc μg/L	StndConc μg/L	BlkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.051	0.053	0.091	0.067	0.039	16:17:41	No

The calibration curve may not be linear.

Addition number 4 applied. [20.00]

Correlation Coefficient: 0.9865

Slope: 0.0026



Calibration data for Se

Standard ID	Mean Signal (Pk Area)	Entered Concentration (μg/L)	Calculated Concentration (μg/L)	Standard Deviation	%RSD
Calib Blank	0.000	----	-0.1451	----	----
S5	0.016	5.00	6.088	----	----
S10	0.021	10.00	8.178	----	----
S15	0.043	15.00	16.54	----	----
S20	0.051	20.00	19.77	----	----

Correlation Coefficient: 0.98654 Slope: 0.00257 Intercept: 0.001

[Se] Sample Concentration 0.2613 μg/L

[Se] Sample Concentration 1.307 μg/L

The calibration curve has been edited.

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Element: Se Seq. No.: 60 AS Loc.: 38 Date: 10/03/2001

Sample ID: S10

µL dispensed: 10 from 36, 5 from 37, 20 from 7, 10 from 38

Repl #	SampleConc µg/L	StndConc µg/L	BlkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.028	0.030	0.053	0.059	0.028	16:22:17	No

Addition number 2 applied. [10.00]

Correlation Coefficient: 0.9984

Slope: 0.0028

[Se] Sample Concentration 0.3044 µg/L

[Se] Sample Concentration 1.522 µg/L

=====

Element: Se Seq. No.: 61 AS Loc.: 38 Date: 10/03/2001

Sample ID: S20

µL dispensed: 5 from 37, 20 from 7, 20 from 38

Repl #	SampleConc µg/L	StndConc µg/L	BlkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.059	0.061	0.102	0.066	0.040	16:24:58	No

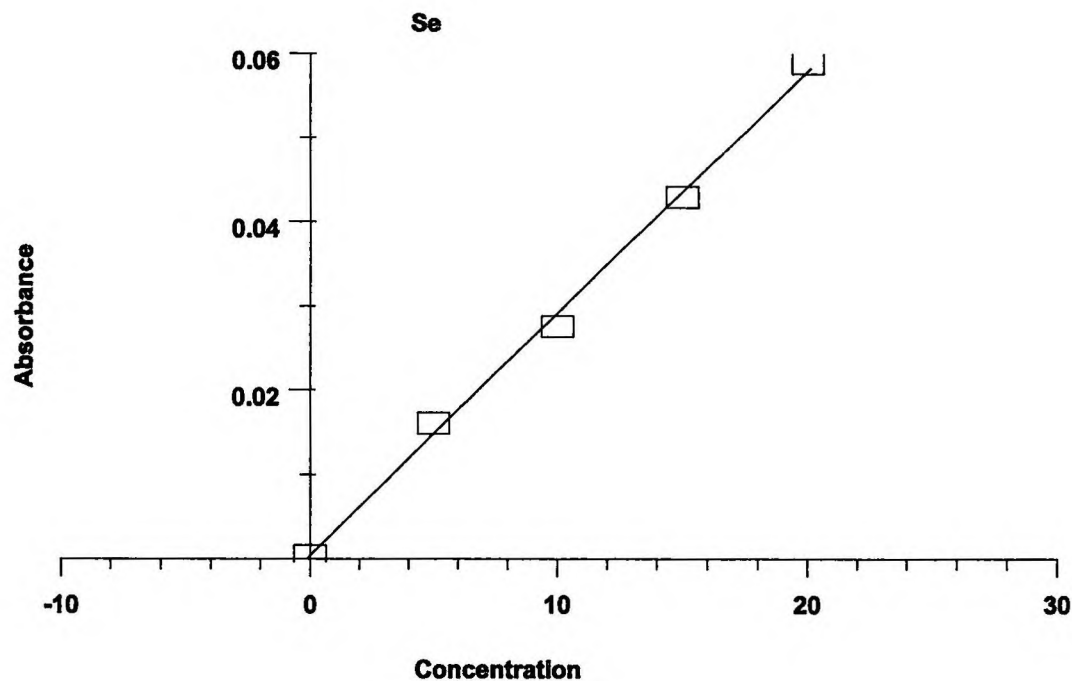
Addition number 4 applied. [20.00]

Correlation Coefficient: 0.9987

Slope: 0.0029

[Se] Sample Concentration 0.1358 µg/L

[Se] Sample Concentration 0.6790 µg/L



Calibration data for Se

Standard ID	Mean Signal (Pk Area)	Entered Concentration (µg/L)	Calculated Concentration (µg/L)	Standard Deviation	%RSD
Calib Blank	0.000	----	-0.1298	----	----
S5	0.016	5.00	5.446	----	----
S10	0.028	10.00	9.461	----	----
S15	0.043	15.00	14.80	----	----
S20	0.059	20.00	20.32	----	----
Correlation Coefficient: 0.99873 Slope: 0.00288 Intercept: 0.000					

=====

Element: Se Seq. No.: 62 AS Loc.: 36 Date: 10/03/2001

Sample ID: Calib Blank

µL dispensed: 20 from 36, 5 from 37, 20 from 36

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.000	0.002	0.009	0.026	0.016	16:34:44	No

Auto-zero performed.

=====

Element: Se Seq. No.: 63 AS Loc.: 8 Date: 10/03/2001

Sample ID: 21796

µL dispensed: 20 from 36, 5 from 37, 20 from 8

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.001	0.003	0.011	0.051	0.037	16:37:22	No

=====

Element: Se Seq. No.: 64 AS Loc.: 38 Date: 10/03/2001

Sample ID: S5

µL dispensed: 15 from 36, 5 from 37, 20 from 8, 5 from 38

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.016	0.018	0.032	0.057	0.021	16:40:11	No

Addition number 1 applied. [5.00]

Correlation Coefficient: 1.0000

Slope: 0.0030

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Element: Se Seq. No.: 65 AS Loc.: 38 Date: 10/03/2001

Sample ID: S10

µL dispensed: 10 from 36, 5 from 37, 20 from 8, 10 from 38

Repl #	SampleConc µg/L	StdConc µg/L	BlkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.028	0.031	0.049	0.192	0.301	16:42:59	No

Addition number 2 applied. [10.00]

Correlation Coefficient: 0.9983

Slope: 0.0028

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Element: Se Seq. No.: 66 AS Loc.: 38 Date: 10/03/2001

Sample ID: S15

µL dispensed: 5 from 36, 5 from 37, 20 from 8, 15 from 38

Repl #	SampleConc µg/L	StdndConc µg/L	BlkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.048	0.051	0.068	0.076	0.038	16:45:47	No

Addition number 3 applied. [15.00]

Correlation Coefficient: 0.9954

Slope: 0.0031

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Element: Se Seq. No.: 67 AS Loc.: 38 Date: 10/03/2001

Sample ID: S20

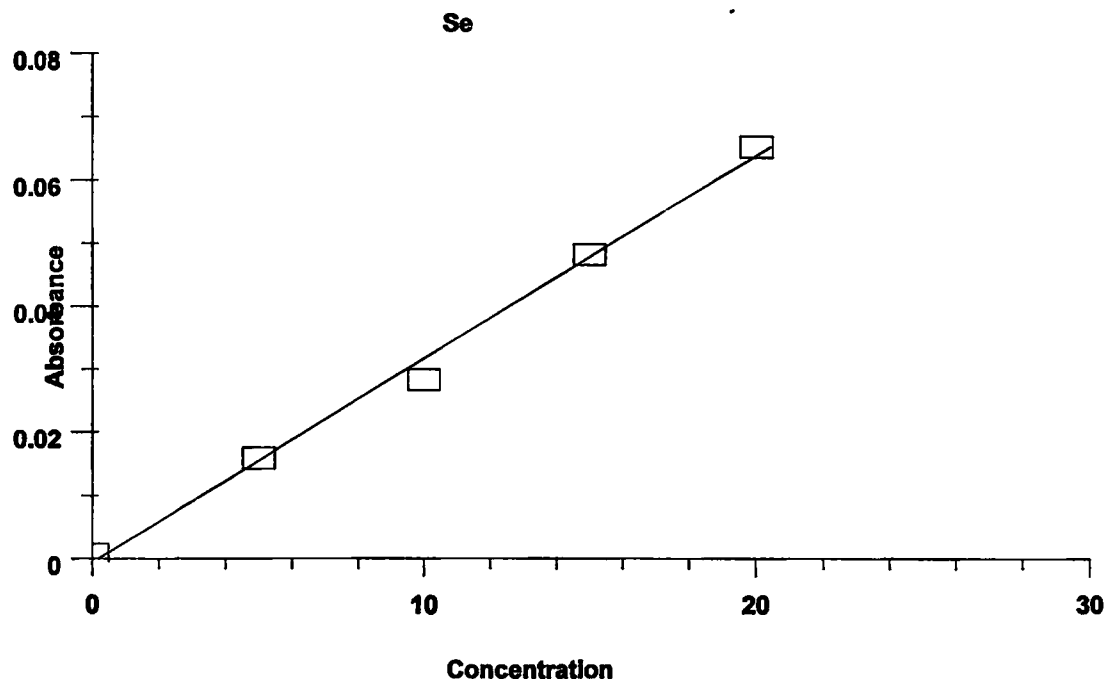
µL dispensed: 5 from 37, 20 from 8, 20 from 38

Repl #	SampleConc µg/L	StdndConc µg/L	BlkCorr Signal	Peak Area	Peak Height	Bkgnd Area	Bkgnd Height	Time	Peak Stored
1			0.065	0.068	0.097	0.112	0.050	16:48:26	No

Addition number 4 applied. [20.00]

Correlation Coefficient: 0.9970

Slope: 0.0032



Calibration data for Se

Standard ID	Mean Signal (Pk Area)	Entered Concentration (µg/L)	Calculated Concentration (µg/L)	Standard Deviation	%RSD
Calib Blank	0.000	----	-0.2409	----	----
S5	0.016	5.00	4.691	----	----
S10	0.028	10.00	8.524	----	----
S15	0.048	15.00	14.70	----	----
S20	0.065	20.00	20.00	----	----

Correlation Coefficient: 0.99703 Slope: 0.00323 Intercept: -0.001

[Se] Sample Concentration -0.1774 µg/L