Method:	**TiterH2SO4**	**Titer 0.1 mol/L 1/2 H2SO4**	**7/17/2012 10:45:01 AM**
Start time:	**7/17/2012 11:51:17 AM**		

Sample data

No.	Comment / ID	Start time	Sample size	Corr. f	Density
1/6	TRIS	7/17/2012 11:51:18 AM	0.06485 g	1.0	0 g/mL
2/6	TRIS	7/17/2012 11:56:47 AM	0.06239 g	1.0	0 g/mL
3/6	TRIS	7/17/2012 12:02:17 PM	0.06850 g	1.0	0 g/mL
4/6	TRIS	7/17/2012 12:07:52 PM	0.06323 g	1.0	0 g/mL
5/6	TRIS	7/17/2012 12:13:28 PM	0.06714 g	1.0	0 g/mL
6/6	TRIS	7/17/2012 12:19:01 PM	0.06284 g	1.0	0 g/mL

Results

No.	Comment / ID	Start time	Sample size and results		
1/6	TRIS	7/17/2012 11:51:18 AM	0.06485	g	
			R1 = 0.99882		Titer
2/6	TRIS	7/17/2012 11:56:47 AM	0.06239	g	
			R1 = 0.99685		Titer
3/6	TRIS	7/17/2012 12:02:17 PM	0.06850	g	
			R1 = 1.00068		Titer
4/6	TRIS	7/17/2012 12:07:52 PM	0.06323	g	
			R1 = 1.00067		Titer
5/6	TRIS	7/17/2012 12:13:28 PM	0.06714	g	
			R1 = 0.99926		Titer
6/6	TRIS	7/17/2012 12:19:01 PM	0.06284	g	
			R1 = 0.99858		Titer
-/-			R2 = 0.9991	--	Mean Titer

Titer

Titer	0.99914

Series comment

Statistics

Rx	Name	n	Mean value	Unit	s	srel [%]
R1	Titer	6	0.99914		0.00144	0.144
R2	Mean Titer	1	0.9991	--	NaN	NaN

Raw data

Sample

No.	1/6
Standard	TRIS
Type of standard	solid
Comment	
Titration stand	Rondo60/1A
Weight	m = 0.06485 g
Correction factor	f = 1.0

Method: **TiterH2SO4** **Titer 0.1 mol/L 1/2 H2SO4** **7/17/2012 10:45:01 AM**
Start time: **7/17/2012 11:51:17 AM**

Purity	p = 100.00 %
Temperature	T = 25.0 oC
Sample start	7/17/2012 11:51:18 AM
Sample end	7/17/2012 11:56:47 AM

EQP titration [1]

Titrant	1/2 H2SO4 c = 0.1 mol/L TITER = 2.02044		
Sensor	DG111-SC		
Start potential		EST =	-111.5 mV
No. of EQPs and cand.		nEQ =	1
Consumption	EQP1	VEQ1 =	5.359609 mL
		Q1 =	1.082877 mmol
		EEQ1 =	131.9 mV
		EHNV1 =	-30.4 mV
Excess		VEX =	1.183891 mL
		QEX =	0.239198 mmol
End		VEND =	6.5435 mL
		QEND =	1.322075 mmol
Termination at	EQPs		
Time	t = 2:02 min		

Calculation

Result	R1 = 0.99882 Titer
Formula	R1=m/(VEQ*c*C)
Constant	M/(10*p*z)
	C = 0.12114
Molar mass	M[TRIS] = 121.14 g/mol
Equivalent number	z[TRIS] = 1
Duration	tUSE = 04:37 min

Measured values EQP titration [1]

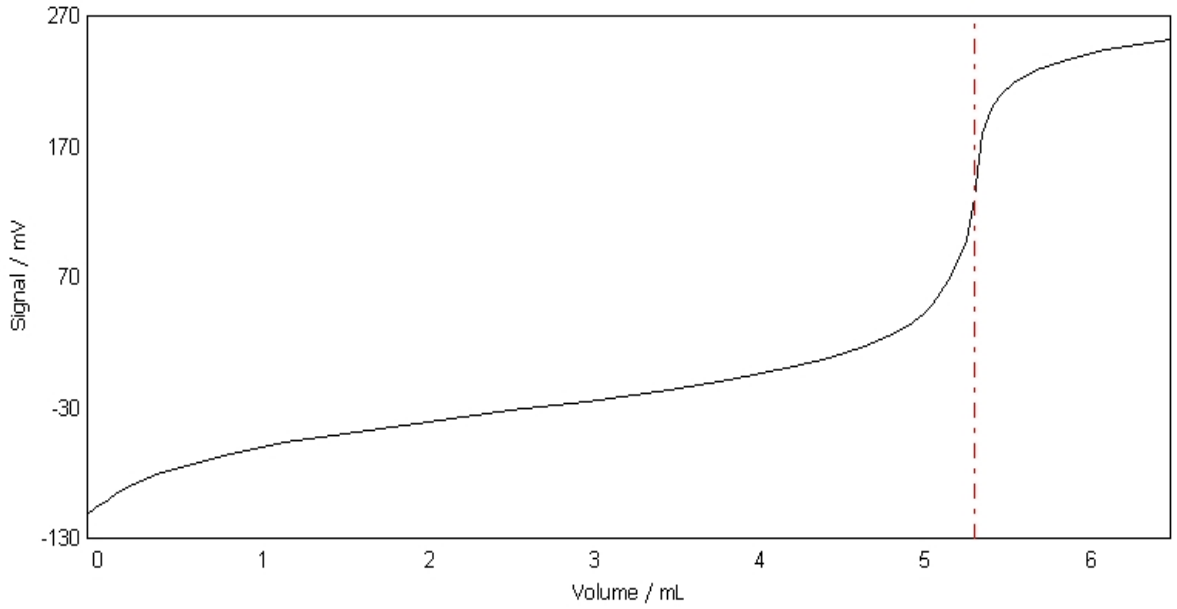
Titrant	1/2 H2SO4 c = 0.1 mol/L TITER = 2.02044
Sensor	DG111-SC
Sample	1/6

	Volume mL	Increment mL	Signal mV	Change mV	1st deriv. mV/mL	Time s	Temperature oC
	0.0000	NaN	-111.5	NaN	NaN	0	25.0
	0.0500	0.0500	-107.4	4.1	NaN	3	25.0
	0.1000	0.0500	-102.5	4.9	NaN	6	25.0
	0.1680	0.0680	-96.8	5.7	NaN	9	25.0
	0.2765	0.1085	-89.3	7.5	NaN	12	25.0
	0.4180	0.1415	-81.5	7.8	52.68	15	25.0
	0.6010	0.1830	-74.0	7.5	42.23	18	25.0
	0.8665	0.2655	-65.7	8.3	32.40	21	25.0
	1.1945	0.3280	-57.0	8.7	24.96	24	25.0
	1.5585	0.3640	-49.7	7.3	20.04	27	25.0
	2.0585	0.5000	-40.9	8.8	16.42	30	25.0
	2.5585	0.5000	-32.2	8.7	15.42	34	25.0
	3.0155	0.4570	-25.5	6.7	16.31	37	25.0
	3.5155	0.5000	-16.1	9.4	19.93	40	25.0
	3.8780	0.3625	-9.0	7.1	24.71	43	25.0
	4.2650	0.3870	1.4	10.4	33.90	46	25.0
	4.4850	0.2200	8.4	7.0	43.10	49	25.0
	4.6960	0.2110	17.4	9.0	57.90	52	25.0
	4.8370	0.1410	24.9	7.5	75.32	55	25.0
	4.9570	0.1200	33.1	8.2	102.10	58	25.0
	5.0475	0.0905	41.7	8.6	133.89	61	25.0
	5.1085	0.0610	49.9	8.2	173.17	64	25.0
	5.1585	0.0500	58.2	8.3	209.77	67	25.0
	5.2085	0.0500	68.6	10.4	275.43	70	25.0
	5.2585	0.0500	82.1	13.5	405.88	74	25.0
	5.3085	0.0500	98.5	16.4	540.76	77	25.0
	5.3585	0.0500	130.8	32.3	521.68	80	25.0
EQP1	5.359609	NaN	131.9	NaN	551.97	NaN	NaN

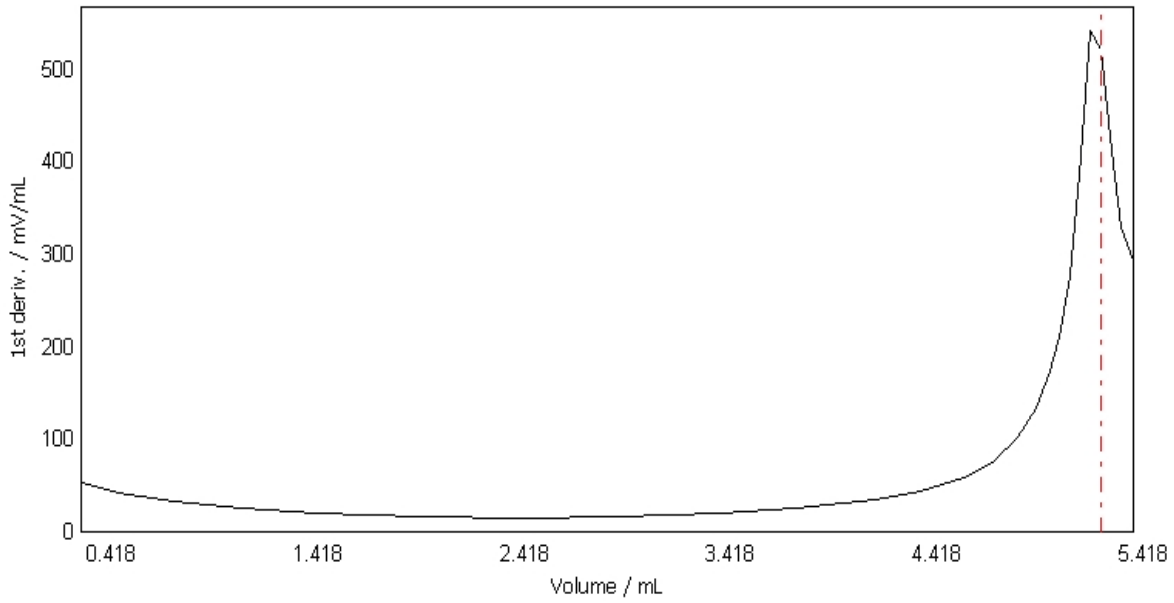
Method: **TiterH2SO4** **Titer 0.1 mol/L 1/2 H2SO4** **7/17/2012 10:45:01 AM**
Start time: **7/17/2012 11:51:17 AM**

Volume mL	Increment mL	Signal mV	Change mV	1st deriv. mV/mL	Time s	Temperature oC
5.4085	0.0500	180.1	49.3	410.68	85	25.0
5.4585	0.0500	198.8	18.7	328.75	88	25.0
5.5150	0.0565	209.7	10.9	292.63	91	25.0
5.5950	0.0800	218.3	8.6	NaN	94	25.0
5.7295	0.1345	228.1	9.8	NaN	97	25.0
5.8885	0.1590	235.7	7.6	NaN	100	25.0
6.1485	0.2600	243.8	8.1	NaN	104	25.0
6.5435	0.3950	252.0	8.2	NaN	106	25.0

E - V curve **EQP titration [1]**
Sample 1/6



dE/dV - V curve **EQP titration [1]**
Sample 1/6



Method:	**TiterH2SO4**	**Titer 0.1 mol/L 1/2 H2SO4**	**7/17/2012 10:45:01 AM**
Start time:	**7/17/2012 11:51:17 AM**		

Raw data

Sample

No.	2/6
Standard	TRIS
Type of standard	solid
Comment	
Titration stand	Rondo60/1A
Weight	m = 0.06239 g
Correction factor	f = 1.0
Purity	p = 100.00 %
Temperature	T = 25.0 oC
Sample start	7/17/2012 11:56:47 AM
Sample end	7/17/2012 12:02:17 PM

EQP titration [1]

Titrant	1/2 H2SO4 c = 0.1 mol/L	TITER = 2.02044
Sensor	DG111-SC	
Start potential		EST = -109.7 mV
No. of EQPs and cand.		nEQ = 1
Consumption	EQP1	VEQ1 = 5.166502 mL
		Q1 = 1.043861 mmol
		EEQ1 = 135.9 mV
		EHNV1 = -29.4 mV
Excess		VEX = 1.348998 mL
		QEX = 0.272557 mmol
End		VEND = 6.5155 mL
		QEND = 1.316418 mmol
Termination at	EQPs	
Time	t = 2:04 min	

Calculation

Result	R1 = 0.99685 Titer
Formula	R1=m/(VEQ*c*C)
Constant	M/(10*p*z)
	C = 0.12114
Molar mass	M[TRIS] = 121.14 g/mol
Equivalent number	z[TRIS] = 1
Duration	tUSE = 04:35 min

Measured values EQP titration [1]

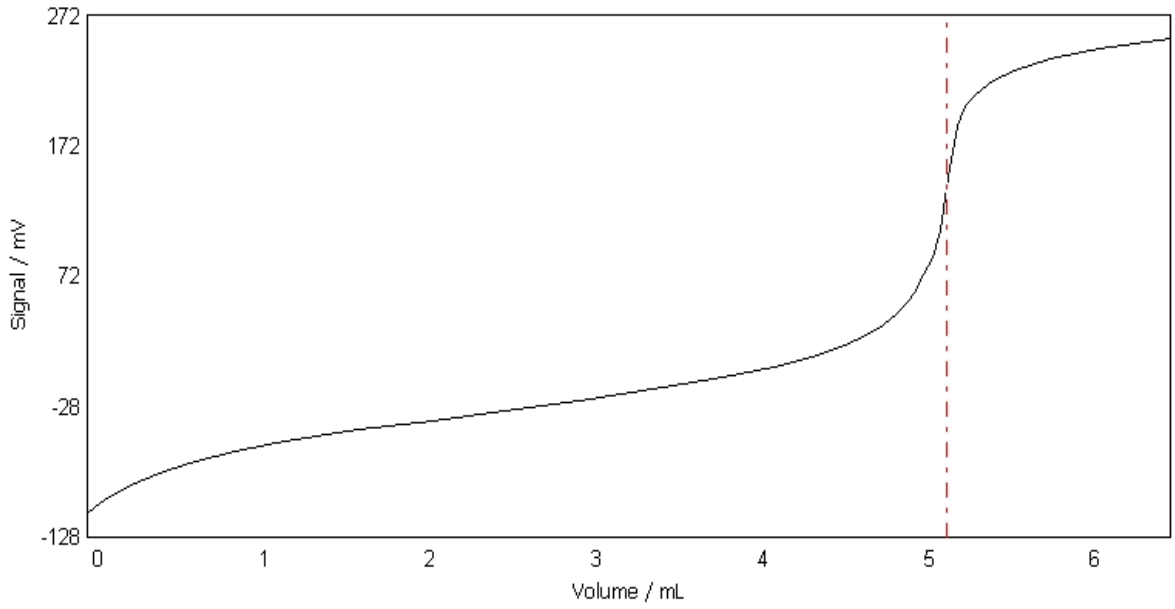
Titrant	1/2 H2SO4 c = 0.1 mol/L	TITER = 2.02044
Sensor	DG111-SC	
Sample	2/6	

Volume mL	Increment mL	Signal mV	Change mV	1st deriv. mV/mL	Time s	Temperature oC
0.0000	NaN	-109.7	NaN	NaN	0	25.0
0.0500	0.0500	-105.2	4.5	NaN	3	25.0
0.1000	0.0500	-100.0	5.2	NaN	6	25.0
0.1680	0.0680	-94.4	5.6	NaN	9	25.0
0.2890	0.1210	-86.3	8.1	NaN	12	25.0
0.4360	0.1470	-78.2	8.1	52.13	15	25.0
0.6135	0.1775	-71.1	7.1	41.98	18	25.0
0.8900	0.2765	-62.0	9.1	31.39	21	25.0
1.1850	0.2950	-54.9	7.1	24.89	24	25.0
1.6355	0.4505	-45.5	9.4	18.96	27	25.0
2.0805	0.4450	-38.5	7.0	16.47	31	25.0
2.5805	0.5000	-29.4	9.1	16.17	34	25.0
2.9630	0.3825	-23.0	6.4	17.55	37	25.0
3.4630	0.5000	-13.4	9.6	21.77	40	25.0
3.8250	0.3620	-5.3	8.1	27.42	43	25.0
4.1285	0.3035	3.2	8.5	35.45	46	25.0

Method: **TiterH2SO4** **Titer 0.1 mol/L 1/2 H2SO4** **7/17/2012 10:45:01 AM**
Start time: **7/17/2012 11:51:17 AM**

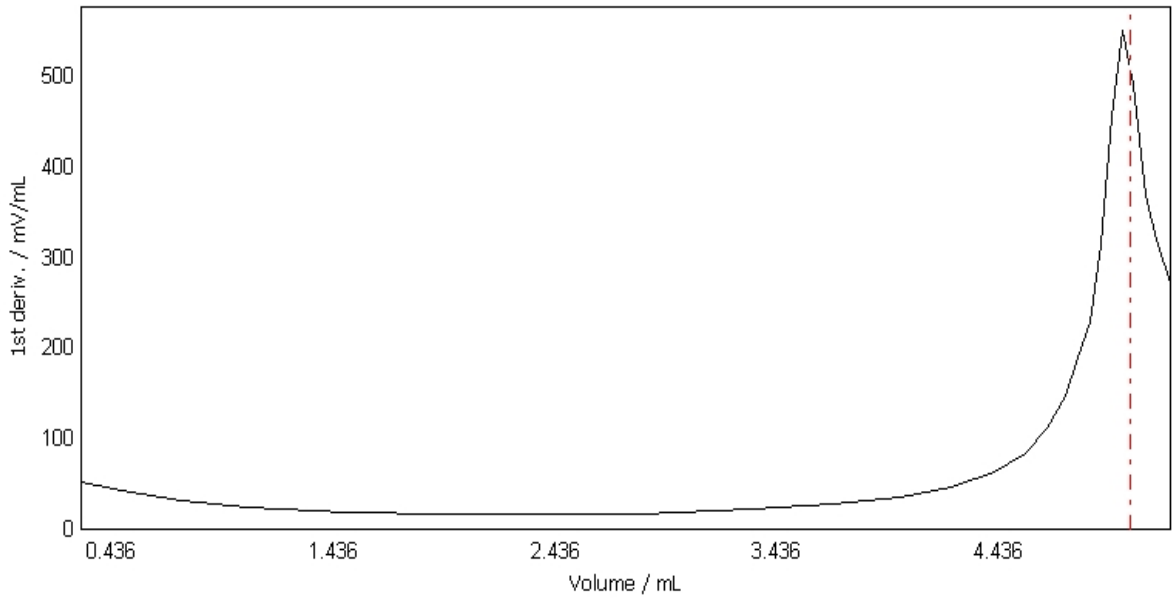
	Volume mL	Increment mL	Signal mV	Change mV	1st deriv. mV/mL	Time s	Temperature oC
	4.3585	0.2300	11.0	7.8	46.16	49	25.0
	4.5535	0.1950	19.7	8.7	62.92	52	25.0
	4.6900	0.1365	27.7	8.0	84.16	55	25.0
	4.7920	0.1020	35.4	7.7	110.72	58	25.0
	4.8750	0.0830	43.9	8.5	146.59	61	25.0
	4.9325	0.0575	52.3	8.4	189.44	64	25.0
	4.9825	0.0500	61.5	9.2	228.59	67	25.0
	5.0325	0.0500	73.4	11.9	314.00	70	25.0
	5.0825	0.0500	86.7	13.3	455.86	74	25.0
	5.1325	0.0500	107.8	21.1	549.42	77	25.0
EQP1	5.166502	NaN	135.9	NaN	556.44	NaN	NaN
	5.1825	0.0500	149.1	41.3	490.45	83	25.0
	5.2325	0.0500	187.3	38.2	368.09	87	25.0
	5.2825	0.0500	202.7	15.4	318.66	90	25.0
	5.3465	0.0640	212.8	10.1	271.38	93	25.0
	5.4460	0.0995	222.5	9.7	NaN	96	25.0
	5.5770	0.1310	230.4	7.9	NaN	99	25.0
	5.7940	0.2170	239.2	8.8	NaN	102	25.0
	6.0875	0.2935	247.3	8.1	NaN	105	25.0
	6.5155	0.4280	254.9	7.6	NaN	108	25.0

E - V curve **EQP titration [1]**
Sample 2/6



dE/dV - V curve **EQP titration [1]**
Sample 2/6

Method:	**TiterH2SO4**	**Titer 0.1 mol/L 1/2 H2SO4**	**7/17/2012 10:45:01 AM**
Start time:	**7/17/2012 11:51:17 AM**		



Raw data

Sample

No.	3/6
Standard	TRIS
Type of standard	solid
Comment	
Titration stand	Rondo60/1A
Weight	m = 0.06850 g
Correction factor	f = 1.0
Purity	p = 100.00 %
Temperature	T = 25.0 oC
Sample start	7/17/2012 12:02:17 PM
Sample end	7/17/2012 12:07:52 PM

EQP titration [1]

Titrant	1/2 H2SO4 c = 0.1 mol/L	TITER = 2.02044
Sensor	DG111-SC	
Start potential		EST = -110.6 mV
No. of EQPs and cand.		nEQ = 1
Consumption	EQP1	VEQ1 = 5.650749 mL
		Q1 = 1.141700 mmol
		EEQ1 = 142.0 mV
		EHNV1 = -29.4 mV
Excess		VEX = 1.592251 mL
		QEX = 0.321705 mmol
End		VEND = 7.2430 mL
		QEND = 1.463405 mmol
Termination at	EQPs	
Time	t = 2:07 min	

Calculation

Result	R1 = 1.00068 Titer
Formula	R1=m/(VEQ*c*C)
Constant	M/(10*p*z)
	C = 0.12114
Molar mass	M[TRIS] = 121.14 g/mol
Equivalent number	z[TRIS] = 1

Method: **TiterH2SO4** **Titer 0.1 mol/L 1/2 H2SO4** **7/17/2012 10:45:01 AM**
Start time: **7/17/2012 11:51:17 AM**

Duration tUSE = 04:40 min

Measured values **EQP titration [1]**

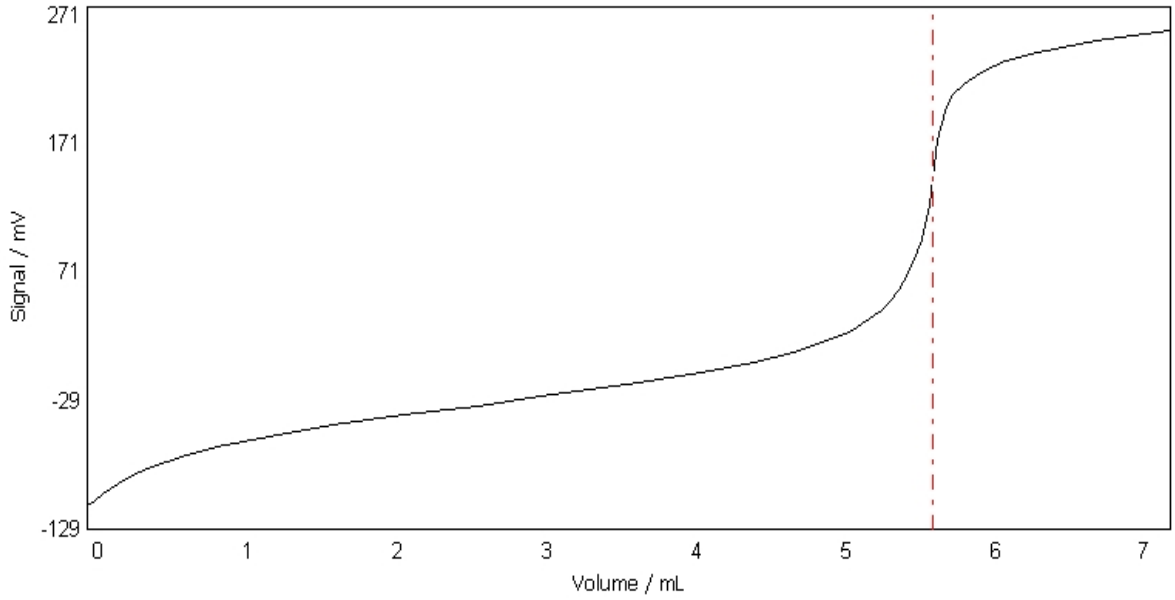
Titrant 1/2 H2SO4 c = 0.1 mol/L TITER = 2.02044
Sensor DG111-SC
Sample 3/6

	Volume mL	Increment mL	Signal mV	Change mV	1st deriv. mV/mL	Time s	Temperature oC
	0.0000	NaN	-110.6	NaN	NaN	0	25.0
	0.0500	0.0500	-107.0	3.6	NaN	3	25.0
	0.1000	0.0500	-101.6	5.4	NaN	6	25.0
	0.1515	0.0515	-97.5	4.1	NaN	9	25.0
	0.2805	0.1290	-88.1	9.4	NaN	12	25.0
	0.4045	0.1240	-81.8	6.3	52.97	15	25.0
	0.6285	0.2240	-72.6	9.2	40.60	18	25.0
	0.8700	0.2415	-65.2	7.4	31.76	21	25.0
	1.2180	0.3480	-56.8	8.4	24.15	24	25.0
	1.6430	0.4250	-48.2	8.6	18.91	27	25.0
	2.1100	0.4670	-40.5	7.7	15.80	30	25.0
	2.6100	0.5000	-32.8	7.7	14.67	34	25.0
	3.1100	0.5000	-24.8	8.0	15.18	36	25.0
	3.6075	0.4975	-16.9	7.9	17.75	40	25.0
	4.1075	0.5000	-7.4	9.5	23.43	43	25.0
	4.4600	0.3525	1.0	8.4	30.80	46	25.0
	4.7295	0.2695	9.1	8.1	40.51	49	25.0
	4.9395	0.2100	17.4	8.3	53.50	52	25.0
	5.0940	0.1545	24.8	7.4	70.72	55	25.0
	5.2300	0.1360	34.1	9.3	97.95	58	25.0
	5.3135	0.0835	41.6	7.5	126.20	61	25.0
	5.3800	0.0665	49.5	7.9	162.96	64	25.0
	5.4320	0.0520	57.4	7.9	201.86	68	25.0
	5.4820	0.0500	67.8	10.4	256.30	71	25.0
	5.5320	0.0500	80.6	12.8	374.91	74	25.0
	5.5820	0.0500	96.1	15.5	518.53	77	25.0
	5.6320	0.0500	123.5	27.4	539.66	80	25.0
EQP1	5.650749	NaN	142.0	NaN	542.31	NaN	NaN
	5.6820	0.0500	172.9	49.4	427.71	85	25.0
	5.7320	0.0500	196.3	23.4	335.80	88	25.0
	5.7820	0.0500	207.1	10.8	304.56	92	25.0
	5.8625	0.0805	217.2	10.1	228.18	95	25.0
	5.9725	0.1100	225.8	8.6	NaN	98	25.0
	6.1375	0.1650	234.6	8.8	NaN	101	25.0
	6.3580	0.2205	241.9	7.3	NaN	104	25.0
	6.7430	0.3850	250.7	8.8	NaN	107	25.0
	7.2430	0.5000	258.5	7.8	NaN	110	25.0

E - V curve **EQP titration [1]**

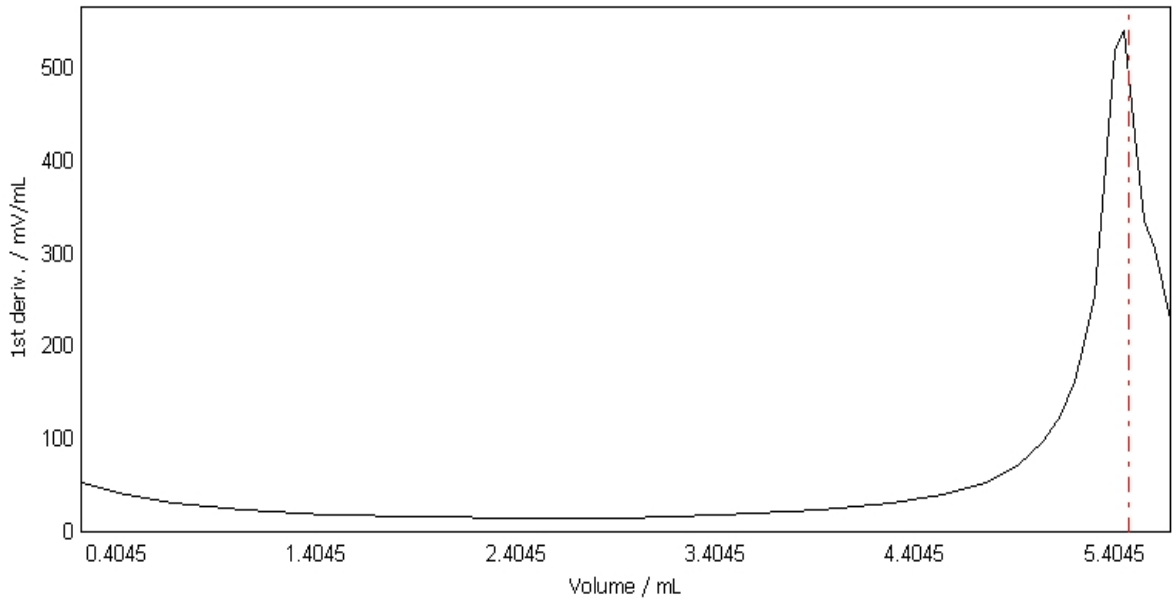
Sample 3/6

Method:	**TiterH2SO4**	**Titer 0.1 mol/L 1/2 H2SO4**	**7/17/2012 10:45:01 AM**
Start time:	**7/17/2012 11:51:17 AM**		



dE/dV - V curve **EQP titration [1]**

Sample 3/6



Raw data

Sample

No.	4/6
Standard	TRIS
Type of standard	solid
Comment	
Titration stand	Rondo60/1A
Weight	m = 0.06323 g
Correction factor	f = 1.0
Purity	p = 100.00 %
Temperature	T = 25.0 oC
Sample start	7/17/2012 12:07:52 PM

Method: TiterH2SO4 **Titer 0.1 mol/L 1/2 H2SO4** **7/17/2012 10:45:01 AM**
Start time: 7/17/2012 11:51:17 AM

Sample end 7/17/2012 12:13:28 PM

EQP titration [1]

Titrant	1/2 H2SO4 c = 0.1 mol/L	TITER = 2.02044
Sensor	DG111-SC	
Start potential		EST = -109.2 mV
No. of EQPs and cand.		nEQ = 1
Consumption	EQP1	VEQ1 = 5.216103 mL
		Q1 = 1.053882 mmol
		EEQ1 = 139.4 mV
		EHNV1 = -28.7 mV
Excess		VEX = 1.469897 mL
		QEX = 0.296984 mmol
End		VEND = 6.6860 mL
		QEND = 1.350866 mmol
Termination at	EQPs	
Time	t = 2:07 min	

Calculation

Result	R1 = 1.00067 Titer
Formula	R1=m/(VEQ*c*C)
Constant	M/(10*p*z)
	C = 0.12114
Molar mass	M[TRIS] = 121.14 g/mol
Equivalent number	z[TRIS] = 1
Duration	tUSE = 04:40 min

Measured values EQP titration [1]

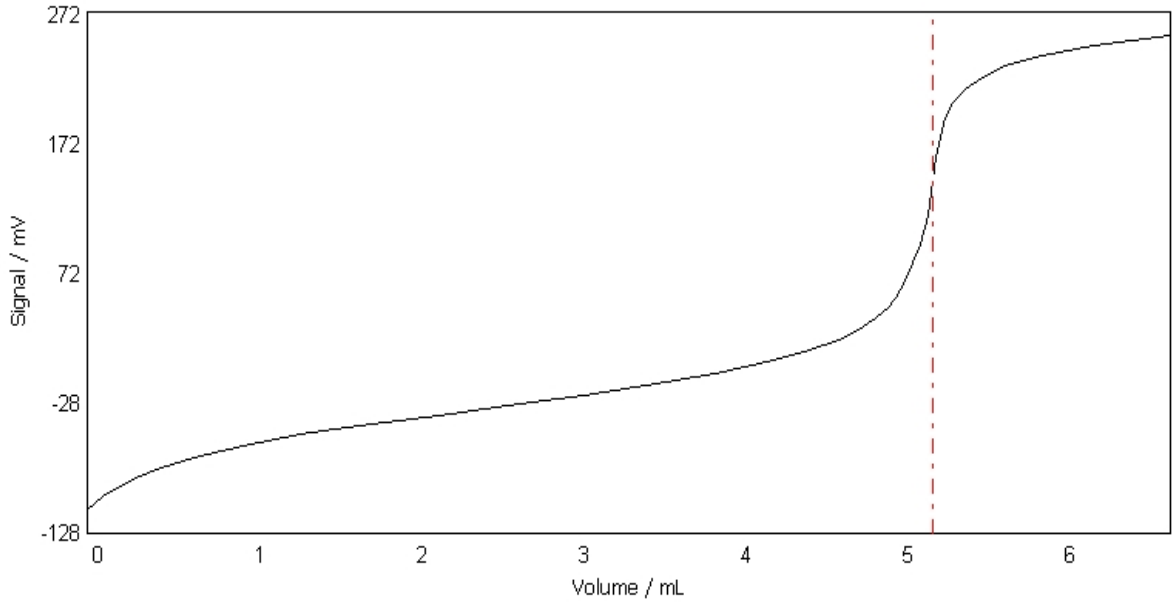
Titrant	1/2 H2SO4 c = 0.1 mol/L	TITER = 2.02044
Sensor	DG111-SC	
Sample	4/6	

	Volume mL	Increment mL	Signal mV	Change mV	1st deriv. mV/mL	Time s	Temperature oC
	0.0000	NaN	-109.2	NaN	NaN	0	25.0
	0.0500	0.0500	-104.3	4.9	NaN	3	25.0
	0.1000	0.0500	-100.0	4.3	NaN	6	25.0
	0.2070	0.1070	-91.7	8.3	NaN	9	25.0
	0.3205	0.1135	-84.1	7.6	NaN	12	25.0
	0.4600	0.1395	-76.8	7.3	50.15	15	25.0
	0.6555	0.1955	-69.5	7.3	39.72	18	25.0
	0.9580	0.3025	-60.8	8.7	29.59	21	25.0
	1.3165	0.3585	-51.7	9.1	22.76	24	25.0
	1.6725	0.3560	-45.2	6.5	18.99	27	25.0
	2.1725	0.5000	-36.7	8.5	16.51	30	25.0
	2.6710	0.4985	-27.5	9.2	16.29	34	25.0
	3.0715	0.4005	-21.4	6.1	17.54	36	25.0
	3.5715	0.5000	-11.2	10.2	22.18	40	25.0
	3.8810	0.3095	-4.6	6.6	27.11	43	25.0
	4.2405	0.3595	5.3	9.9	37.74	46	25.0
	4.4615	0.2210	13.2	7.9	49.81	49	25.0
	4.6345	0.1730	22.0	8.8	67.31	52	25.0
	4.7465	0.1120	28.5	6.5	89.18	55	25.0
	4.8680	0.1215	38.1	9.6	129.20	58	25.0
	4.9415	0.0735	46.3	8.2	166.25	61	25.0
	4.9920	0.0505	54.1	7.8	207.46	64	25.0
	5.0420	0.0500	64.6	10.5	257.01	69	25.0
	5.0920	0.0500	81.3	16.7	353.78	72	25.0
	5.1420	0.0500	95.9	14.6	495.58	76	25.0
	5.1920	0.0500	117.7	21.8	534.27	79	25.0
EQP1	5.216103	NaN	139.4	NaN	537.48	NaN	NaN
	5.2420	0.0500	162.7	45.0	444.46	86	25.0
	5.2920	0.0500	192.5	29.8	341.29	89	25.0
	5.3420	0.0500	205.2	12.7	302.07	92	25.0
	5.4155	0.0735	215.2	10.0	242.04	95	25.0
	5.5270	0.1115	224.8	9.6	NaN	98	25.0

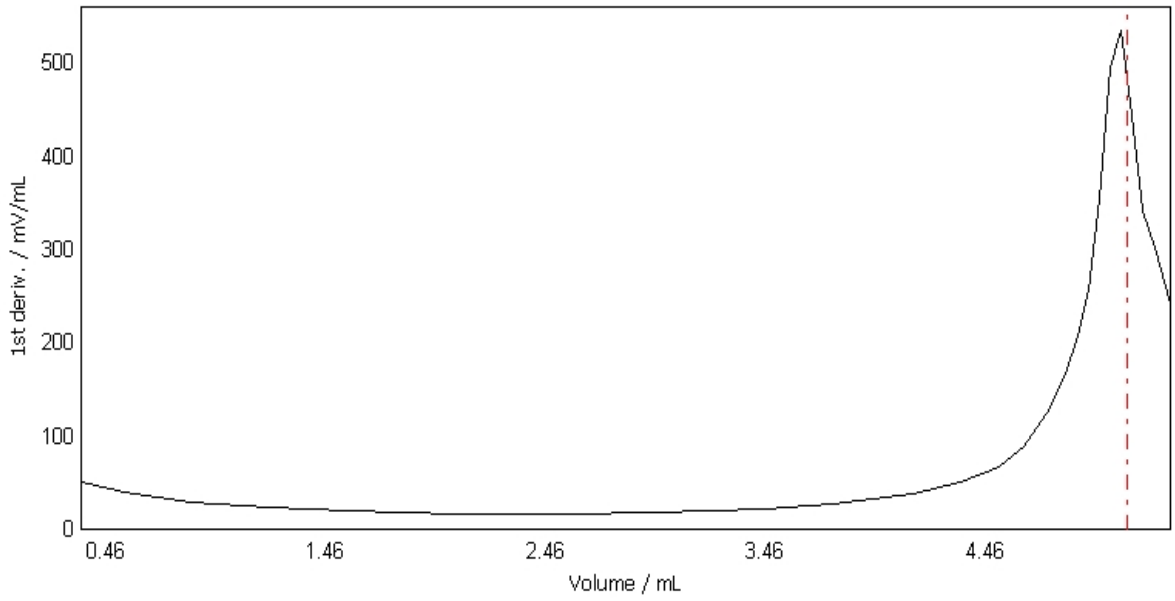
Method:	**TiterH2SO4**	**Titer 0.1 mol/L 1/2 H2SO4**	**7/17/2012 10:45:01 AM**
Start time:	**7/17/2012 11:51:17 AM**		

Volume mL	Increment mL	Signal mV	Change mV	1st deriv. mV/mL	Time s	Temperature oC
5.6705	0.1435	232.8	8.0	NaN	101	25.0
5.8955	0.2250	241.3	8.5	NaN	104	25.0
6.2100	0.3145	249.2	7.9	NaN	108	25.0
6.6860	0.4760	256.9	7.7	NaN	111	25.0

E - V curve **EQP titration [1]**
Sample 4/6



dE/dV - V curve **EQP titration [1]**
Sample 4/6



Raw data

Method: **TiterH2SO4** **Titer 0.1 mol/L 1/2 H2SO4** **7/17/2012 10:45:01 AM**
Start time: **7/17/2012 11:51:17 AM**

Sample

No.	5/6
Standard	TRIS
Type of standard	solid
Comment	
Titration stand	Rondo60/1A
Weight	m = 0.06714 g
Correction factor	f = 1.0
Purity	p = 100.00 %
Temperature	T = 25.0 oC
Sample start	7/17/2012 12:13:28 PM
Sample end	7/17/2012 12:19:00 PM

EQP titration [1]

Titrant	1/2 H2SO4 c = 0.1 mol/L	TITER = 2.02044
Sensor	DG111-SC	
Start potential		EST = -111.6 mV
No. of EQPs and cand.		nEQ = 1
Consumption	EQP1	VEQ1 = 5.546437 mL
		Q1 = 1.120624 mmol
		EEQ1 = 133.5 mV
		EHNV1 = -29.6 mV
Excess		VEX = 1.168563 mL
		QEX = 0.236101 mmol
End		VEND = 6.7150 mL
		QEND = 1.356725 mmol
Termination at	EQPs	
Time	t = 2:02 min	

Calculation

Result	R1 = 0.99926 Titer
Formula	R1=m/(VEQ*c*C)
Constant	M/(10*p*z)
	C = 0.12114
Molar mass	M[TRIS] = 121.14 g/mol
Equivalent number	z[TRIS] = 1
Duration	tUSE = 04:35 min

Measured values EQP titration [1]

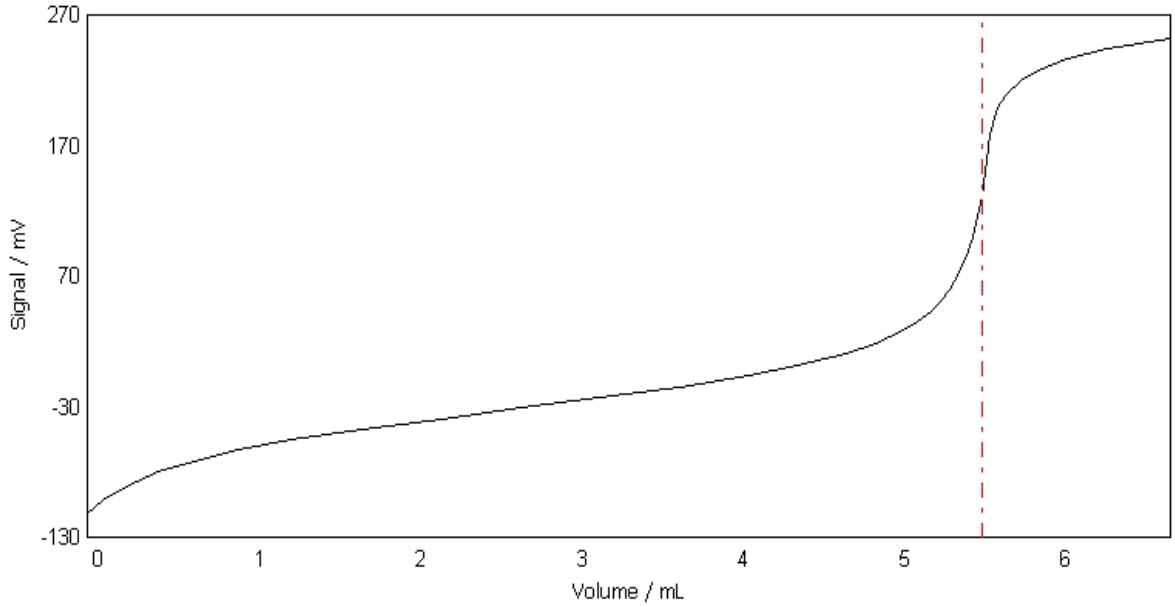
Titrant	1/2 H2SO4 c = 0.1 mol/L TITER = 2.02044
Sensor	DG111-SC
Sample	5/6

Volume mL	Increment mL	Signal mV	Change mV	1st deriv. mV/mL	Time s	Temperature oC
0.0000	NaN	-111.6	NaN	NaN	0	25.0
0.0500	0.0500	-106.7	4.9	NaN	3	25.0
0.1000	0.0500	-102.0	4.7	NaN	6	25.0
0.1895	0.0895	-94.7	7.3	NaN	9	25.0
0.3025	0.1130	-87.0	7.7	NaN	12	25.0
0.4425	0.1400	-80.0	7.0	51.11	15	25.0
0.6570	0.2145	-71.8	8.2	39.28	19	25.0
0.9355	0.2785	-63.3	8.5	29.97	22	25.0
1.2600	0.3245	-55.6	7.7	23.47	25	25.0
1.6985	0.4385	-47.8	7.8	18.37	28	25.0
2.1985	0.5000	-39.2	8.6	15.72	31	25.0
2.6835	0.4850	-31.0	8.2	15.17	34	25.0
3.1745	0.4910	-23.5	7.5	16.40	37	25.0
3.6745	0.5000	-14.8	8.7	19.70	40	25.0
4.0995	0.4250	-5.7	9.1	25.06	43	25.0
4.4015	0.3020	1.5	7.2	31.90	46	25.0
4.7020	0.3005	11.1	9.6	44.23	49	25.0
4.8870	0.1850	18.7	7.6	57.96	52	25.0

Method: **TiterH2SO4** **Titer 0.1 mol/L 1/2 H2SO4** **7/17/2012 10:45:01 AM**
Start time: **7/17/2012 11:51:17 AM**

	Volume mL	Increment mL	Signal mV	Change mV	1st deriv. mV/mL	Time s	Temperature oC
	5.0400	0.1530	27.3	8.6	78.33	55	25.0
	5.1445	0.1045	34.6	7.3	102.57	58	25.0
	5.2350	0.0905	43.5	8.9	136.13	61	25.0
	5.2935	0.0585	51.0	7.5	170.29	64	25.0
	5.3435	0.0500	59.4	8.4	207.03	67	25.0
	5.3935	0.0500	70.1	10.7	270.91	71	25.0
	5.4435	0.0500	83.4	13.3	394.99	74	25.0
	5.4935	0.0500	99.8	16.4	535.27	77	25.0
	5.5435	0.0500	130.7	30.9	532.75	80	25.0
EQP1	5.546437	NaN	133.5	NaN	547.98	NaN	NaN
	5.5935	0.0500	178.9	48.2	405.66	85	25.0
	5.6435	0.0500	199.1	20.2	327.18	88	25.0
	5.6935	0.0500	208.4	9.3	299.38	91	25.0
	5.7880	0.0945	219.7	11.3	NaN	94	25.0
	5.8910	0.1030	227.1	7.4	NaN	97	25.0
	6.0770	0.1860	236.0	8.9	NaN	100	25.0
	6.3265	0.2495	243.9	7.9	NaN	103	25.0
	6.7150	0.3885	252.1	8.2	NaN	106	25.0

E - V curve **EQP titration [1]**
Sample 5/6

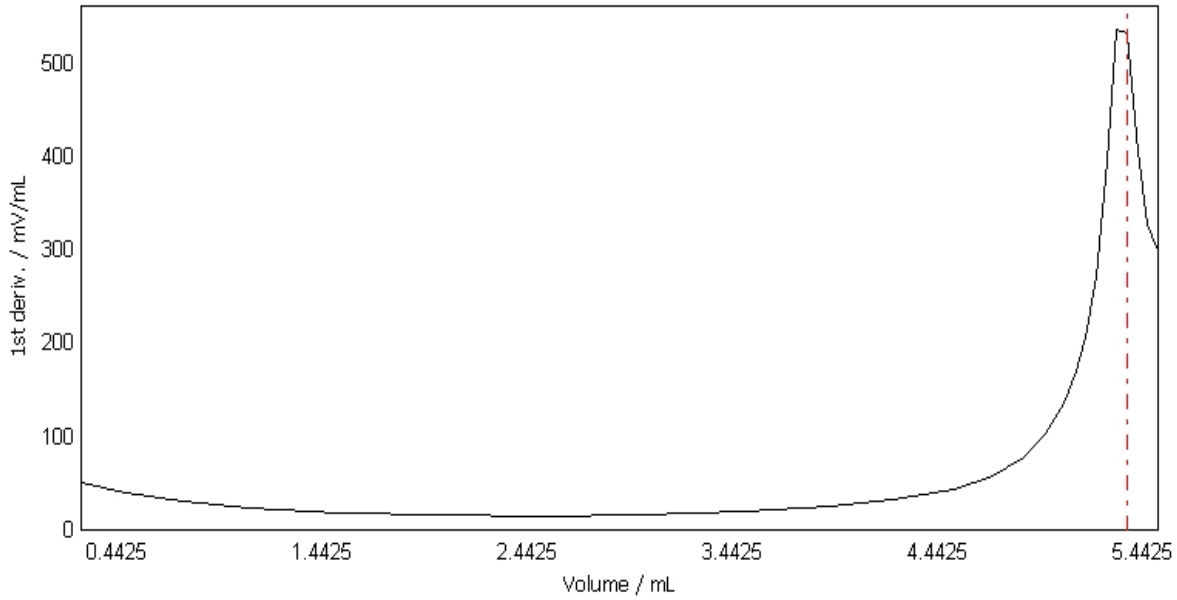


dE/dV - V curve **EQP titration [1]**
Sample 5/6

Method:	**TiterH2SO4**	**Titer 0.1 mol/L 1/2 H2SO4**	**7/17/2012 10:45:01 AM**
Start time:	**7/17/2012 11:51:17 AM**		

dE/dV - V curve EQP titration [1]

Sample 5/6



Raw data

Sample

No.	6/6
Standard	TRIS
Type of standard	solid
Comment	
Titration stand	Rondo60/1A
Weight	m = 0.06284 g
Correction factor	f = 1.0
Purity	p = 100.00 %
Temperature	T = 25.0 oC
Sample start	7/17/2012 12:19:01 PM
Sample end	7/17/2012 12:24:38 PM

EQP titration [1]

Titrant	1/2 H2SO4 c = 0.1 mol/L	TITER = 2.02044
Sensor	DG111-SC	
Start potential		EST = -110.4 mV
No. of EQPs and cand.		nEQ = 1
Consumption	EQP1	VEQ1 = 5.194752 mL
		Q1 = 1.049568 mmol
		EEQ1 = 138.1 mV
		EHNV1 = -29.6 mV
Excess		VEX = 1.474748 mL
		QEX = 0.297964 mmol
End		VEND = 6.6695 mL
		QEND = 1.347532 mmol
Termination at	EQPs	
Time	t = 2:06 min	

Calculation

Result	R1 = 0.99858 Titer
Formula	R1=m/(VEQ*c*C)
Constant	M/(10*p*z)
	C = 0.12114

Method: **TiterH2SO4** **Titer 0.1 mol/L 1/2 H2SO4** **7/17/2012 10:45:01 AM**
Start time: **7/17/2012 11:51:17 AM**

Molar mass M[TRIS] = 121.14 g/mol
Equivalent number z[TRIS] = 1
Duration tUSE = 04:40 min

Measured values **EQP titration [1]**

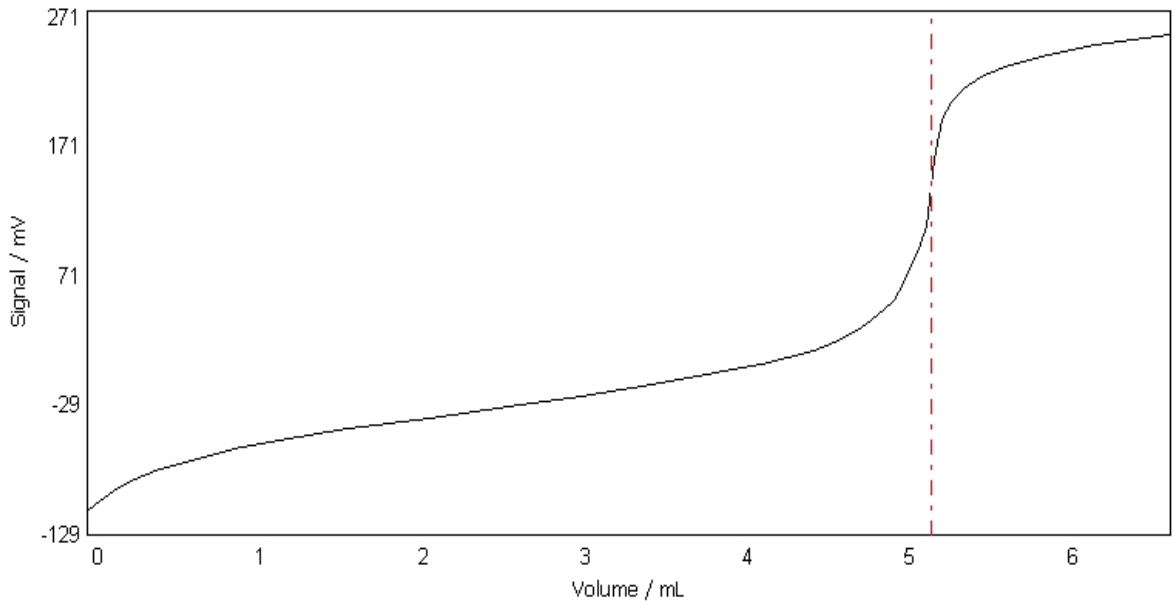
Titrant 1/2 H2SO4 c = 0.1 mol/L TITER = 2.02044
Sensor DG111-SC
Sample 6/6

	Volume mL	Increment mL	Signal mV	Change mV	1st deriv. mV/mL	Time s	Temperature oC
	0.0000	NaN	-110.4	NaN	NaN	0	25.0
	0.0500	0.0500	-106.0	4.4	NaN	3	25.0
	0.1000	0.0500	-100.7	5.3	NaN	6	25.0
	0.1650	0.0650	-95.4	5.3	NaN	9	25.0
	0.2910	0.1260	-86.5	8.9	NaN	12	25.0
	0.4225	0.1315	-80.0	6.5	52.81	15	25.0
	0.6485	0.2260	-70.9	9.1	40.17	18	25.0
	0.8980	0.2495	-62.6	8.3	31.32	21	25.0
	1.1825	0.2845	-55.4	7.2	25.13	24	25.0
	1.6070	0.4245	-47.3	8.1	19.61	28	25.0
	2.1070	0.5000	-38.4	8.9	16.89	30	25.0
	2.5930	0.4860	-29.7	8.7	16.64	34	25.0
	3.0410	0.4480	-21.7	8.0	18.25	37	25.0
	3.4810	0.4400	-13.2	8.5	21.84	40	25.0
	3.8690	0.3880	-4.1	9.1	27.61	43	25.0
	4.1515	0.2825	2.7	6.8	35.08	46	25.0
	4.4705	0.3190	14.0	11.3	51.98	49	25.0
	4.6255	0.1550	21.7	7.7	69.15	52	25.0
	4.7375	0.1120	29.3	7.6	90.20	55	25.0
	4.8265	0.0890	36.6	7.3	116.13	58	25.0
	4.9055	0.0790	44.8	8.2	149.27	61	25.0
	4.9675	0.0620	53.2	8.4	190.49	64	25.0
	5.0175	0.0500	63.6	10.4	236.40	68	25.0
	5.0675	0.0500	75.6	12.0	339.28	72	25.0
	5.1175	0.0500	91.6	16.0	487.19	75	25.0
	5.1675	0.0500	110.5	18.9	549.60	78	25.0
EQP1	5.194752	NaN	138.1	NaN	554.10	NaN	NaN
	5.2175	0.0500	161.1	50.6	458.24	85	25.0
	5.2675	0.0500	192.3	31.2	353.72	88	25.0
	5.3175	0.0500	205.1	12.8	316.09	91	25.0
	5.3935	0.0760	215.8	10.7	249.92	94	25.0
	5.4965	0.1030	224.6	8.8	NaN	97	25.0
	5.6520	0.1555	233.3	8.7	NaN	100	25.0
	5.8710	0.2190	241.3	8.0	NaN	103	25.0
	6.2075	0.3365	249.7	8.4	NaN	106	25.0
	6.6695	0.4620	257.4	7.7	NaN	110	25.0

Method:	**TiterH2SO4**	**Titer 0.1 mol/L 1/2 H2SO4**	**7/17/2012 10:45:01 AM**
Start time:	**7/17/2012 11:51:17 AM**		

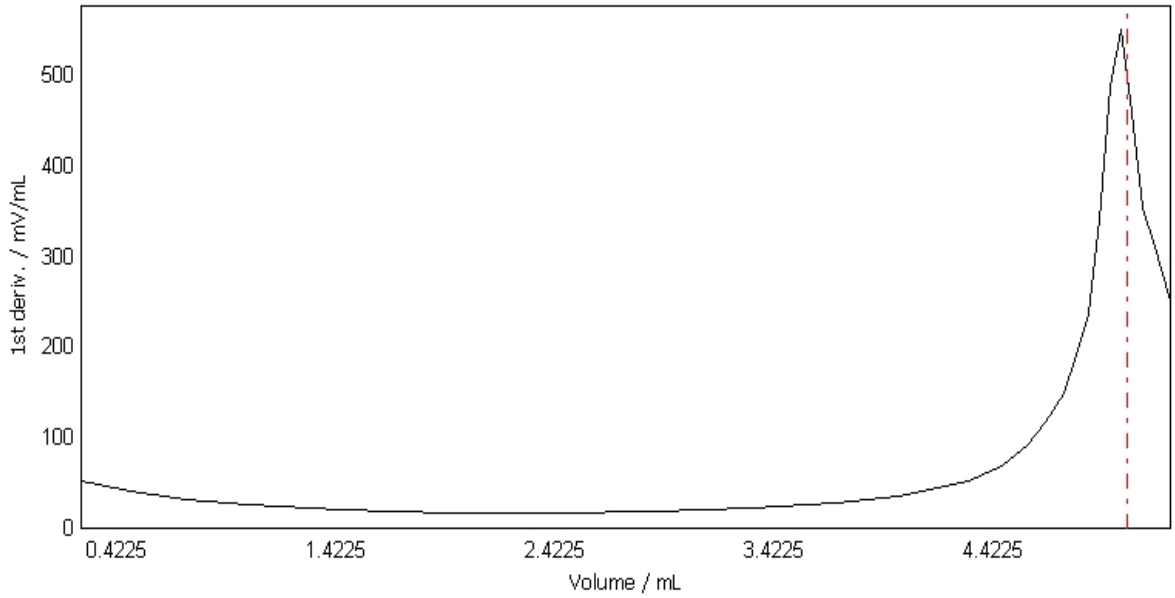
E - V curve EQP titration [1]

Sample 6/6



dE/dV - V curve EQP titration [1]

Sample 6/6



Raw data

Calculation

Result	R2 = 0.9991 -- Mean Titer
Formula	R2=Mean[R1]
Constant	1
	C = 1
Molar mass	M[Potassium hydrogen phthalate] = 204.23 g/mol
Equivalent number	z[Potassium hydrogen phthalate] = 1

Method:	**TiterH2SO4**	**Titer 0.1 mol/L 1/2 H2SO4**	**7/17/2012 10:45:01 AM**
Start time:	**7/17/2012 11:51:17 AM**		

Titer

Titrant	1/2 H2SO4	c = 0.1 mol/L
Titer	0.99914	

(1) Modified
(2) Excluded
(3) Outside limits
(4) Resource expired
(5) srel above max srel
(6) srel above max srel for multiple determination
(7) Value outside limits, not saved in setup
(8) Sample data outside limits
(9) Standard evaluation used
(10) Result from buffer

Created: **Development Administrator (admin), 7/17/2012 11:56:50 AM**