Method:	**TBAOH**	**Titer with EQP of 0.1 TBAOH**	**7/30/2012 2:43:41 PM**
Start time:	**7/30/2012 5:47:15 PM**		

Sample data

No.	Comment / ID	Start time	Sample size	Corr. f	Density
1/6	Benzoic acid	7/30/2012 5:47:15 PM	0.05649 g	1.0	0 g/mL
2/6	Benzoic acid	7/30/2012 5:52:05 PM	0.07039 g	1.0	0 g/mL
3/6	Benzoic acid	7/30/2012 5:57:11 PM	0.05586 g	1.0	0 g/mL
4/6	Benzoic acid	7/30/2012 6:01:42 PM	0.05597 g	1.0	0 g/mL
5/6	Benzoic acid	7/30/2012 6:06:15 PM	0.06283 g	1.0	0 g/mL
6/6	Benzoic acid	7/30/2012 6:11:16 PM	0.07272 g	1.0	0 g/mL

Results

No.	Comment / ID	Start time	Sample size and results		
1/6	Benzoic acid	7/30/2012 5:47:15 PM	0.05649	g	
			R1 = 0.99551	--	Titer
2/6	Benzoic acid	7/30/2012 5:52:05 PM	0.07039	g	
			R1 = 0.99932	--	Titer
3/6	Benzoic acid	7/30/2012 5:57:11 PM	0.05586	g	
			R1 = 0.99836	--	Titer
4/6	Benzoic acid	7/30/2012 6:01:42 PM	0.05597	g	
			R1 = 0.99774	--	Titer
5/6	Benzoic acid	7/30/2012 6:06:15 PM	0.06283	g	
			R1 = 0.99813	--	Titer
6/6	Benzoic acid	7/30/2012 6:11:16 PM	0.07272	g	
			R1 = 1.00004	--	Titer
-/-			R2 = 0.998	--	Mean Titer

Titer

Titer	0.99818

Statistics

Rx	Name	n	Mean value	Unit	s	srel [%]
R1	Titer	6	0.99818	--	0.00156	0.156
R2	Mean Titer	1	0.998	--	NaN	NaN

Raw data

Sample

No.	1/6
Standard	Benzoic acid
Type of standard	solid
Comment	
Titration stand	Rondo60/1A
Weight	m = 0.05649 g
Correction factor	f = 1.0
Purity	p = 100.00 %
Temperature	T = 25.0 oC
Sample start	7/30/2012 5:47:15 PM
Sample end	7/30/2012 5:52:05 PM

Method: **TBAOH** **Titer with EQP of 0.1 TBAOH** **7/30/2012 2:43:41 PM**
Start time: **7/30/2012 5:47:15 PM**

EQP titration [1]

Titrant	TBAOH c = 0.1 mol/L TITER = 0.99600	
Sensor	DG113-SC	
Start potential		EST = 109.4 mV
Predispense		EPD = -21.0 mV
		VPD = 1.5000 mL
No. of EQPs and cand.		nEQ = 1
Consumption	EQP1	VEQ1 = 4.646628 mL
		Q1 = 0.462804 mmol
		EEQ1 = -209.3 mV
		EHNV1 = -30.5 mV
Excess		VEX = 0.913372 mL
		QEX = 0.090972 mmol
End		VEND = 5.5600 mL
		QEND = 0.553776 mmol
Termination at	EQPs	
Time	t = 3:19 min	

Calculation

Result	R1 = 0.99551 -- Titer
Formula	R1=m/(VEQ*c*C)
Constant	M/(10*p*z)
	C = 0.12212
Molar mass	M[Benzoic acid] = 122.12 g/mol
Equivalent number	z[Benzoic acid] = 1
Duration	tUSE = 04:17 min

Measured values EQP titration [1]

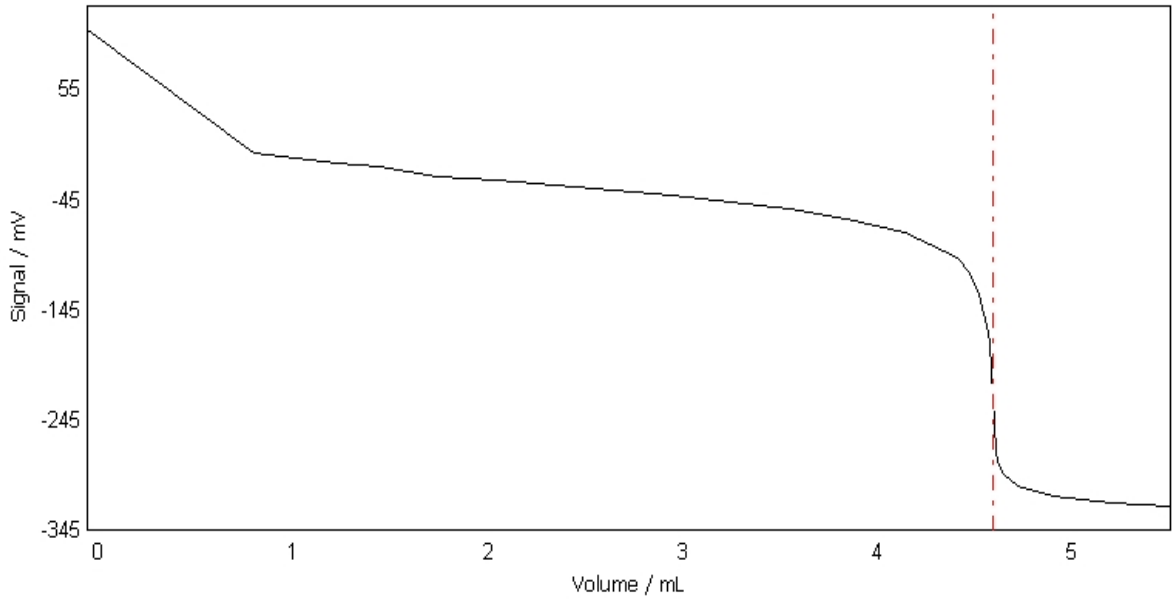
Titrant	TBAOH c = 0.1 mol/L TITER = 0.99600
Sensor	DG113-SC
Sample	1/6

	Volume mL	Increment mL	Signal mV	Change mV	1st deriv. mV/mL	Time s	Temperature oC
	0.0000	NaN	109.4	NaN	NaN	0	25.0
	0.8570	0.8570	-2.5	-111.9	NaN	9	25.0
	1.2855	0.4285	-11.4	-8.9	NaN	13	25.0
	1.5000	0.2145	-15.6	-4.2	NaN	17	25.0
	1.8000	0.3000	-23.6	-8.0	NaN	51	25.0
	2.1000	0.3000	-27.7	-4.1	-6.78	54	25.0
	2.4000	0.3000	-31.4	-3.7	-14.97	57	25.0
	2.7000	0.3000	-36.2	-4.8	-14.09	60	25.0
	3.0000	0.3000	-40.8	-4.6	-14.19	64	25.0
	3.3000	0.3000	-46.5	-5.7	-18.60	68	25.0
	3.6000	0.3000	-53.2	-6.7	-27.50	71	25.0
	3.9000	0.3000	-62.1	-8.9	-46.35	76	25.0
	4.2000	0.3000	-74.9	-12.8	-91.67	81	25.0
	4.4635	0.2635	-98.5	-23.6	-192.89	89	25.0
	4.5280	0.0645	-112.0	-13.5	-289.79	95	25.0
	4.5525	0.0245	-120.3	-8.3	-408.58	99	25.0
	4.5745	0.0220	-129.7	-9.4	-601.24	104	25.0
	4.5970	0.0225	-144.6	-14.9	-995.84	111	25.0
	4.6085	0.0115	-153.5	-8.9	-1140.43	115	25.0
	4.6215	0.0130	-165.8	-12.3	-1408.07	120	25.0
	4.6320	0.0105	-175.8	-10.0	-1971.62	124	25.0
	4.6445	0.0125	-198.5	-22.7	-1820.79	134	25.0
EQP1	4.646628	NaN	-209.3	NaN	-1998.47	NaN	NaN
	4.6545	0.0100	-249.3	-50.8	-1442.69	152	25.0
	4.6645	0.0100	-272.0	-22.7	-1346.66	162	25.0
	4.6765	0.0120	-282.9	-10.9	-831.64	167	25.0
	4.7065	0.0300	-294.6	-11.7	NaN	172	25.0
	4.7790	0.0725	-304.9	-10.3	NaN	176	25.0
	4.9600	0.1810	-313.6	-8.7	NaN	179	25.0
	5.2600	0.3000	-319.8	-6.2	NaN	183	25.0
	5.5600	0.3000	-323.5	-3.7	NaN	186	25.0

Method:	**TBAOH**	**Titer with EQP of 0.1 TBAOH**	**7/30/2012 2:43:41 PM**
Start time:	**7/30/2012 5:47:15 PM**		

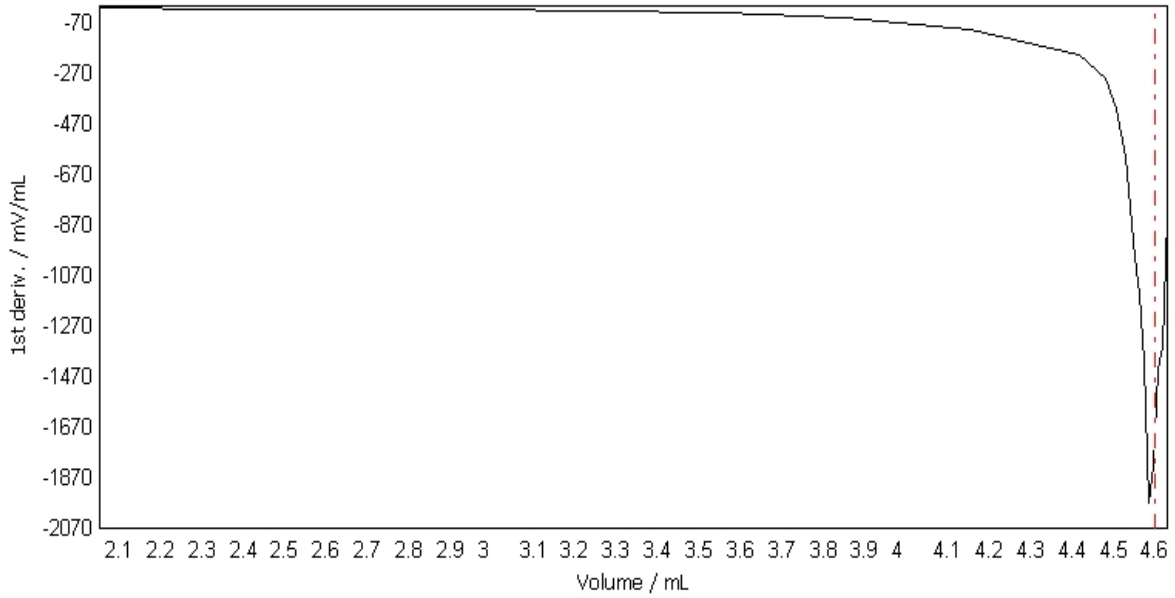
E - V curve EQP titration [1]

Sample 1/6



dE/dV - V curve EQP titration [1]

Sample 1/6



Raw data

Sample

No.	2/6
Standard	Benzoic acid
Type of standard	solid
Comment	
Titration stand	Rondo60/1A
Weight	m = 0.07039 g
Correction factor	f = 1.0
Purity	p = 100.00 %

Method: **TBAOH** **Titer with EQP of 0.1 TBAOH** **7/30/2012 2:43:41 PM**
Start time: **7/30/2012 5:47:15 PM**

Temperature	T = 25.0 oC	
Sample start	7/30/2012 5:52:05 PM	
Sample end	7/30/2012 5:57:11 PM	

EQP titration [1]

Titrant	TBAOH c = 0.1 mol/L TITER = 0.99600	
Sensor	DG113-SC	
Start potential		EST = 110.6 mV
Predispense		EPD = -15.1 mV
		VPD = 1.5000 mL
No. of EQPs and cand.		nEQ = 1
Consumption	EQP1	VEQ1 = 5.767914 mL
		Q1 = 0.574484 mmol
		EEQ1 = -222.9 mV
		EHNV1 = -28.4 mV
Excess		VEX = 0.784586 mL
		QEX = 0.078145 mmol
End		VEND = 6.5525 mL
		QEND = 0.652629 mmol
Termination at	EQPs	
Time	t = 3:30 min	

Calculation

Result	R1 = 0.99932 -- Titer
Formula	R1=m/(VEQ*c*C)
Constant	M/(10*p*z)
	C = 0.12212
Molar mass	M[Benzoic acid] = 122.12 g/mol
Equivalent number	z[Benzoic acid] = 1
Duration	tUSE = 04:31 min

Measured values EQP titration [1]

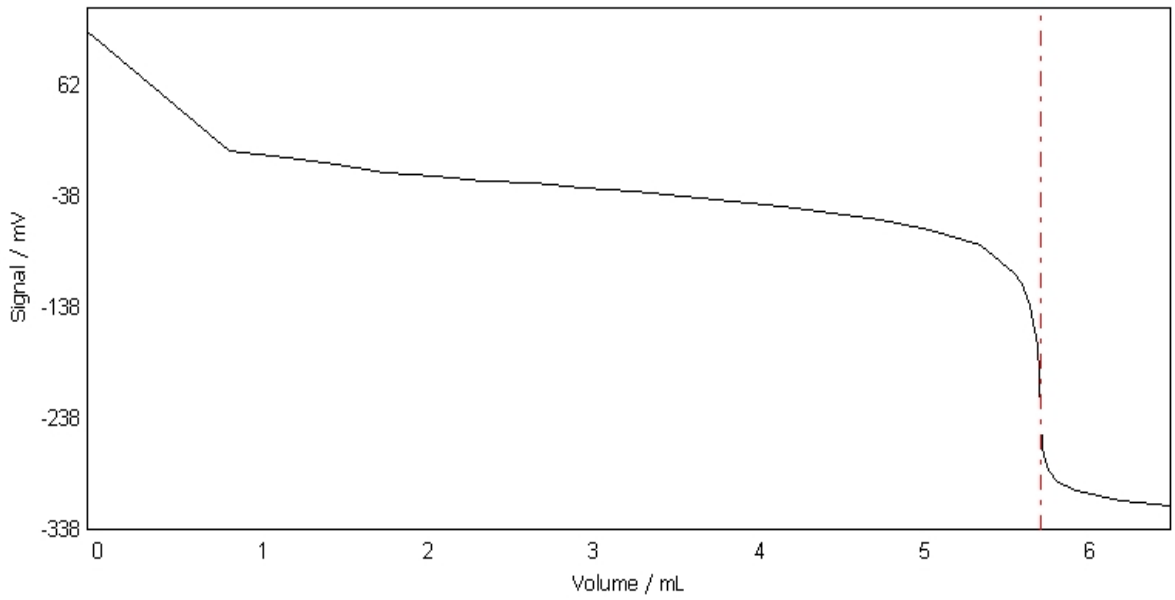
Titrant	TBAOH c = 0.1 mol/L TITER = 0.99600
Sensor	DG113-SC
Sample	2/6

	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
	0.8570	0.8570	3.6	-107.0	NaN	6	25.0
	1.2855	0.4285	-4.8	-8.4	NaN	10	25.0
	1.5000	0.2145	-9.7	-4.9	NaN	13	25.0
	1.8000	0.3000	-17.2	-7.5	NaN	46	25.0
	2.1000	0.3000	-20.2	-3.0	-4.84	50	25.0
	2.4000	0.3000	-23.6	-3.4	-11.64	53	25.0
	2.7000	0.3000	-26.3	-2.7	-10.28	56	25.0
	3.0000	0.3000	-29.8	-3.5	-10.89	59	25.0
	3.3000	0.3000	-33.6	-3.8	-12.60	63	25.0
	3.6000	0.3000	-37.8	-4.2	-13.68	66	25.0
	3.9000	0.3000	-42.1	-4.3	-14.67	70	25.0
	4.2000	0.3000	-46.8	-4.7	-14.42	74	25.0
	4.5000	0.3000	-52.5	-5.7	-19.01	78	25.0
	4.8000	0.3000	-59.5	-7.0	-29.59	83	25.0
	5.1000	0.3000	-68.3	-8.8	-54.00	87	25.0
	5.4000	0.3000	-82.5	-14.2	-113.35	93	25.0
	5.6130	0.2130	-107.7	-25.2	-225.97	102	25.0
	5.6535	0.0405	-116.6	-8.9	-318.81	106	25.0
	5.6835	0.0300	-129.0	-12.4	-480.73	113	25.0
	5.6990	0.0155	-136.1	-7.1	-773.24	117	25.0
	5.7225	0.0235	-150.8	-14.7	-1116.05	123	25.0
	5.7365	0.0140	-164.0	-13.2	-1257.44	129	25.0
	5.7465	0.0100	-172.5	-8.5	-1600.75	133	25.0
	5.7620	0.0155	-196.6	-24.1	-1865.17	143	25.0
EQP1	5.767914	NaN	-222.9	NaN	-1878.40	NaN	NaN
	5.7720	0.0100	-241.0	-44.4	-1266.23	158	25.0

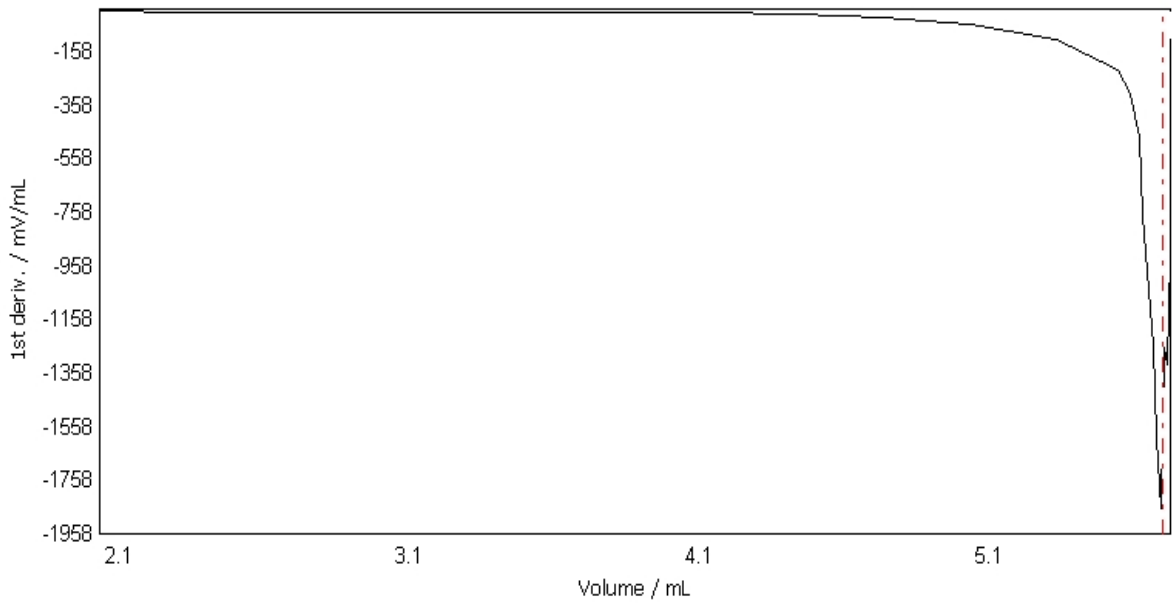
Method: **TBAOH** **Titer with EQP of 0.1 TBAOH** **7/30/2012 2:43:41 PM**
Start time: **7/30/2012 5:47:15 PM**

	Volume mL	Increment mL	Signal mV	Change mV	1st deriv. mV/mL	Time s	Temperature oC
	5.7820	0.0100	-263.6	-22.6	-1324.37	167	25.0
	5.7925	0.0105	-275.1	-11.5	-923.69	173	25.0
	5.8150	0.0225	-284.2	-9.1	NaN	177	25.0
	5.8710	0.0560	-296.1	-11.9	NaN	182	25.0
	5.9800	0.1090	-303.5	-7.4	NaN	186	25.0
	6.2525	0.2725	-312.6	-9.1	NaN	190	25.0
	6.5525	0.3000	-316.6	-4.0	NaN	193	25.0

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



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



Method: **TBAOH** **Titer with EQP of 0.1 TBAOH** **7/30/2012 2:43:41 PM**
Start time: **7/30/2012 5:47:15 PM**

Raw data

Sample

No.	3/6
Standard	Benzoic acid
Type of standard	solid
Comment	
Titration stand	Rondo60/1A
Weight	m = 0.05586 g
Correction factor	f = 1.0
Purity	p = 100.00 %
Temperature	T = 25.0 oC
Sample start	7/30/2012 5:57:11 PM
Sample end	7/30/2012 6:01:42 PM

EQP titration [1]

Titrant	TBAOH c = 0.1 mol/L TITER = 0.99600	
Sensor	DG113-SC	
Start potential		EST = 101.2 mV
Predispense		EPD = -23.7 mV
		VPD = 1.5000 mL
No. of EQPs and cand.		nEQ = 1
Consumption	EQP1	VEQ1 = 4.581688 mL
		Q1 = 0.456336 mmol
		EEQ1 = -200.1 mV
		EHNV1 = -32.0 mV
Excess		VEX = 0.900812 mL
		QEX = 0.089721 mmol
End		VEND = 5.4825 mL
		QEND = 0.546057 mmol
Termination at	EQPs	
Time	t = 2:53 min	

Calculation

Result	R1 = 0.99836 -- Titer
Formula	R1=m/(VEQ*c*C)
Constant	M/(10*p*z)
	C = 0.12212
Molar mass	M[Benzoic acid] = 122.12 g/mol
Equivalent number	z[Benzoic acid] = 1
Duration	tUSE = 03:57 min

Measured values EQP titration [1]

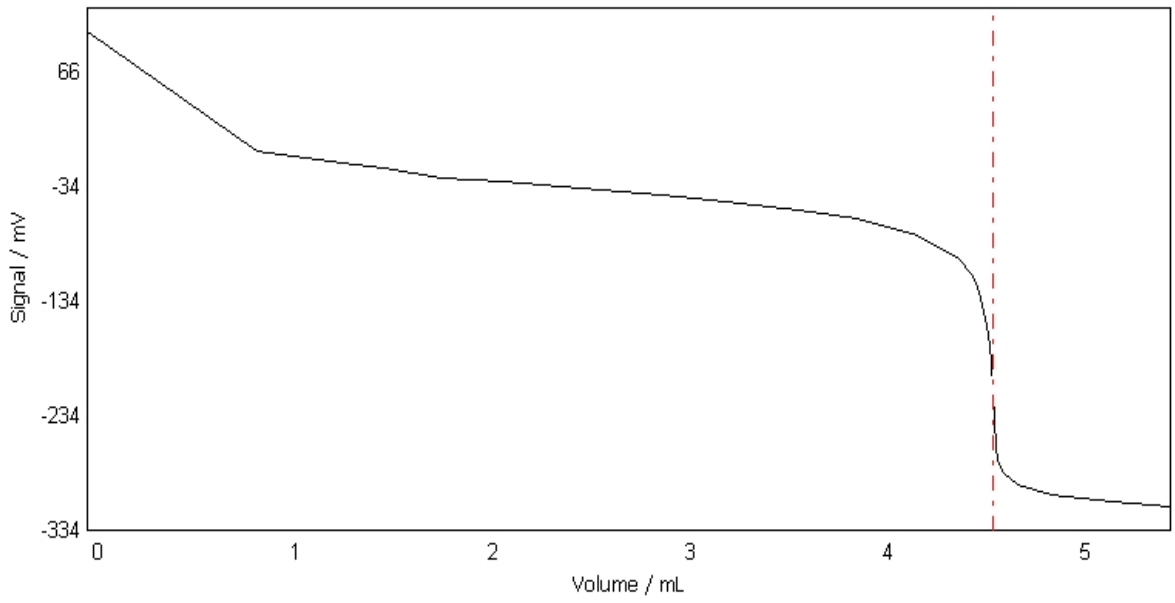
Titrant	TBAOH c = 0.1 mol/L TITER = 0.99600
Sensor	DG113-SC
Sample	3/6

Volume mL	Increment mL	Signal mV	Change mV	1st deriv. mV/mL	Time s	Temperature oC
0.0000	NaN	101.2	NaN	NaN	0	25.0
0.8570	0.8570	-3.3	-104.5	NaN	6	25.0
1.2855	0.4285	-13.3	-10.0	NaN	11	25.0
1.5000	0.2145	-18.1	-4.8	NaN	14	25.0
1.8000	0.3000	-26.1	-8.0	NaN	48	25.0
2.1000	0.3000	-29.6	-3.5	-7.57	51	25.0
2.4000	0.3000	-33.4	-3.8	-14.29	54	25.0
2.7000	0.3000	-37.6	-4.2	-13.00	58	25.0
3.0000	0.3000	-42.3	-4.7	-13.17	61	25.0
3.3000	0.3000	-48.3	-6.0	-17.92	65	25.0
3.6000	0.3000	-54.0	-5.7	-27.52	68	25.0
3.9000	0.3000	-62.1	-8.1	-49.46	71	25.0
4.2000	0.3000	-76.3	-14.2	-105.02	76	25.0

Method: **TBAOH** **Titer with EQP of 0.1 TBAOH** **7/30/2012 2:43:41 PM**
Start time: **7/30/2012 5:47:15 PM**

	Volume mL	Increment mL	Signal mV	Change mV	1st deriv. mV/mL	Time s	Temperature oC
	4.4145	0.2145	-97.7	-21.4	-208.73	82	25.0
	4.4715	0.0570	-110.1	-12.4	-304.42	87	25.0
	4.4970	0.0255	-117.9	-7.8	-449.85	91	25.0
	4.5245	0.0275	-130.9	-13.0	-825.79	95	25.0
	4.5410	0.0165	-143.7	-12.8	-1202.51	100	25.0
	4.5510	0.0100	-155.0	-11.3	-1248.72	105	25.0
	4.5610	0.0100	-163.6	-8.6	-1758.45	108	25.0
	4.5790	0.0180	-186.1	-22.5	-1778.90	116	25.0
EQP1	4.581688	NaN	-200.1	NaN	-1805.08	NaN	NaN
	4.5890	0.0100	-238.0	-51.9	-1325.63	131	25.0
	4.5990	0.0100	-260.8	-22.8	-1305.37	138	25.0
	4.6110	0.0120	-272.2	-11.4	-840.03	143	25.0
	4.6410	0.0300	-284.4	-12.2	NaN	147	25.0
	4.7100	0.0690	-293.9	-9.5	NaN	150	25.0
	4.8825	0.1725	-303.1	-9.2	NaN	154	25.0
	5.1825	0.3000	-309.5	-6.4	NaN	157	25.0
	5.4825	0.3000	-313.5	-4.0	NaN	160	25.0

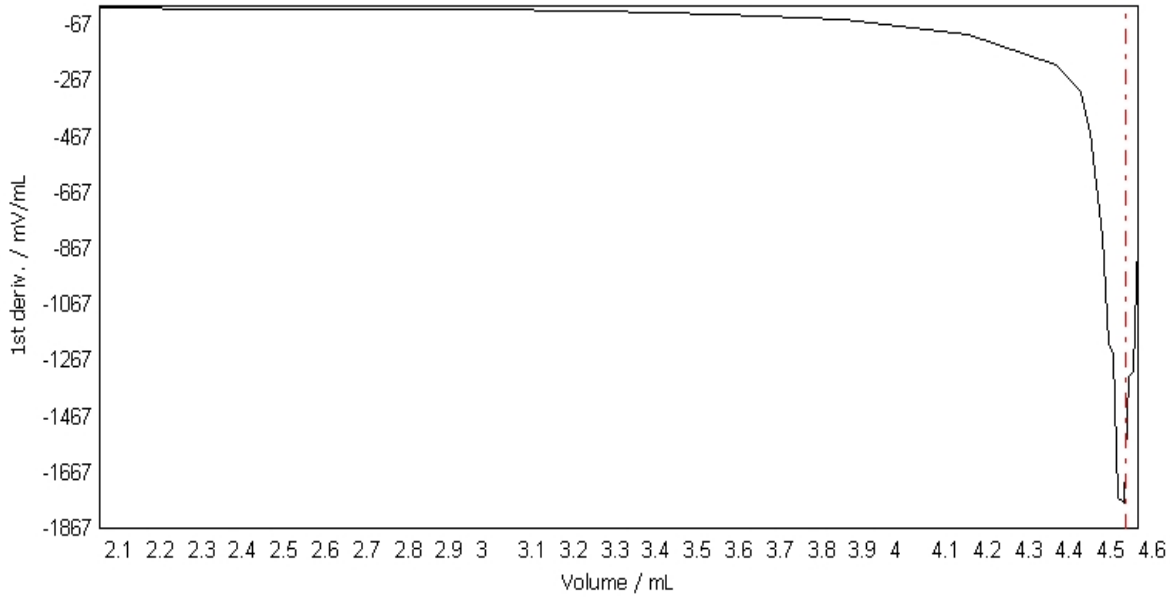
E - V curve **EQP titration [1]**
Sample 3/6



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

Method:	**TBAOH**	**Titer with EQP of 0.1 TBAOH**	**7/30/2012 2:43:41 PM**
Start time:	**7/30/2012 5:47:15 PM**		

Sample 3/6



Raw data

Sample

No.	4/6
Standard	Benzoic acid
Type of standard	solid
Comment	
Titration stand	Rondo60/1A
Weight	m = 0.05597 g
Correction factor	f = 1.0
Purity	p = 100.00 %
Temperature	T = 25.0 oC
Sample start	7/30/2012 6:01:42 PM
Sample end	7/30/2012 6:06:15 PM

EQP titration [1]

Titrant	TBAOH c = 0.1 mol/L TITER = 0.99600	
Sensor	DG113-SC	
Start potential		EST = 99.1 mV
Predispense		EPD = -23.7 mV
		VPD = 1.5000 mL
No. of EQPs and cand.		nEQ = 1
Consumption	EQP1	VEQ1 = 4.593586 mL
		Q1 = 0.457521 mmol
		EEQ1 = -202.4 mV
		EHNV1 = -31.8 mV
Excess		VEX = 0.939914 mL
		QEX = 0.093615 mmol
End		VEND = 5.5335 mL
		QEND = 0.551137 mmol
Termination at	EQPs	
Time	t = 2:55 min	

Calculation

Result	R1 = 0.99774 -- Titer
Formula	R1=m/(VEQ*c*C)
Constant	M/(10*p*z)

Method: **TBAOH** **Titer with EQP of 0.1 TBAOH** **7/30/2012 2:43:41 PM**
Start time: **7/30/2012 5:47:15 PM**

C = 0.12212
Molar mass M[Benzoic acid] = 122.12 g/mol
Equivalent number z[Benzoic acid] = 1
Duration tUSE = 03:58 min

Measured values EQP titration [1]

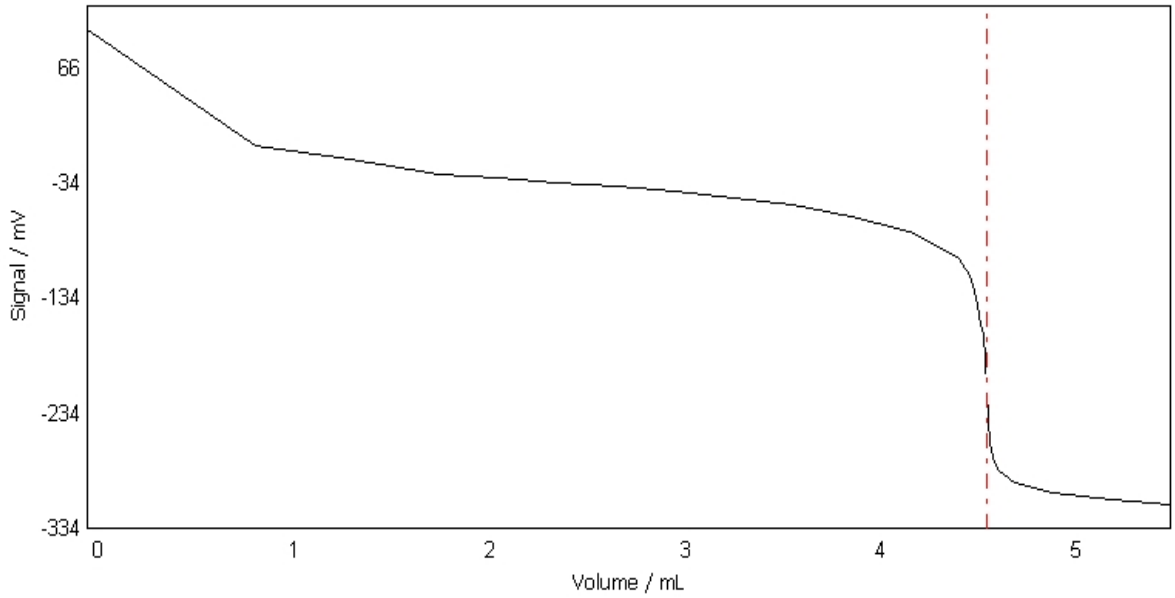
Titrant TBAOH c = 0.1 mol/L TITER = 0.99600
Sensor DG113-SC
Sample 4/6

	Volume mL	Increment mL	Signal mV	Change mV	1st deriv. mV/mL	Time s	Temperature oC
	0.0000	NaN	99.1	NaN	NaN	0	25.0
	0.8570	0.8570	-1.1	-100.2	NaN	5	25.0
	1.2855	0.4285	-12.3	-11.2	NaN	10	25.0
	1.5000	0.2145	-17.2	-4.9	NaN	13	25.0
	1.8000	0.3000	-26.0	-8.8	NaN	46	25.0
	2.1000	0.3000	-29.4	-3.4	-8.68	50	25.0
	2.4000	0.3000	-33.1	-3.7	-13.73	53	25.0
	2.7000	0.3000	-37.4	-4.3	-12.66	56	25.0
	3.0000	0.3000	-41.8	-4.4	-12.79	59	25.0
	3.3000	0.3000	-47.2	-5.4	-17.60	63	25.0
	3.6000	0.3000	-53.4	-6.2	-27.43	66	25.0
	3.9000	0.3000	-62.6	-9.2	-49.46	70	25.0
	4.2000	0.3000	-75.6	-13.0	-99.95	75	25.0
	4.4525	0.2525	-99.8	-24.2	-212.01	81	25.0
	4.5095	0.0570	-114.8	-15.0	-323.93	86	25.0
	4.5260	0.0165	-123.0	-8.2	-501.76	90	25.0
	4.5385	0.0125	-133.0	-10.0	-915.77	94	25.0
	4.5485	0.0100	-140.4	-7.4	-1120.63	98	25.0
	4.5660	0.0175	-156.2	-15.8	-1344.00	103	25.0
	4.5770	0.0110	-166.1	-9.9	-1951.51	106	25.0
	4.5905	0.0135	-186.0	-19.9	-1670.27	114	25.0
EQP1	4.593586	NaN	-202.4	NaN	-2008.70	NaN	NaN
	4.6005	0.0100	-239.1	-53.1	-1324.99	129	25.0
	4.6105	0.0100	-259.9	-20.8	-1240.74	137	25.0
	4.6255	0.0150	-273.2	-13.3	-788.17	142	25.0
	4.6570	0.0315	-283.5	-10.3	NaN	146	25.0
	4.7360	0.0790	-293.8	-10.3	NaN	150	25.0
	4.9335	0.1975	-303.0	-9.2	NaN	153	25.0
	5.2335	0.3000	-309.2	-6.2	NaN	157	25.0
	5.5335	0.3000	-313.0	-3.8	NaN	161	25.0

E - V curve EQP titration [1]

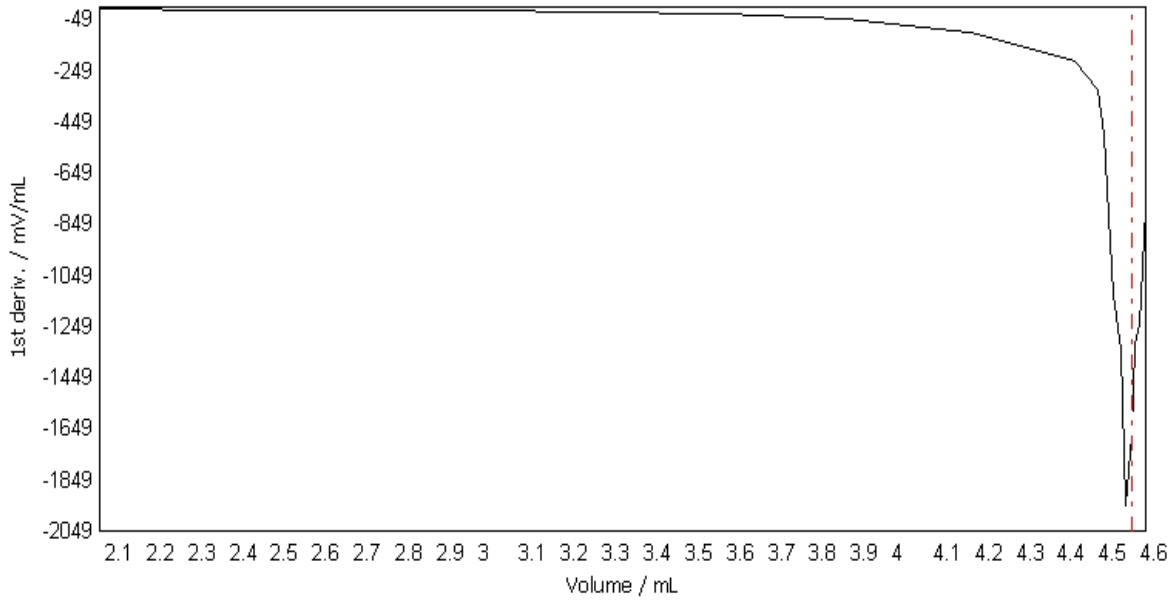
Method:	**TBAOH**	**Titer with EQP of 0.1 TBAOH**	**7/30/2012 2:43:41 PM**
Start time:	**7/30/2012 5:47:15 PM**		

Sample 4/6



dE/dV - V curve EQP titration [1]

Sample 4/6



Raw data

Sample

No.	5/6
Standard	Benzoic acid
Type of standard	solid
Comment	
Titration stand	Rondo60/1A
Weight	m = 0.06283 g
Correction factor	f = 1.0
Purity	p = 100.00 %
Temperature	T = 25.0 oC

Method: **TBAOH** **Titer with EQP of 0.1 TBAOH** **7/30/2012 2:43:41 PM**
Start time: **7/30/2012 5:47:15 PM**

Sample start	7/30/2012 6:06:15 PM	
Sample end	7/30/2012 6:11:16 PM	

EQP titration [1]

Titrant	TBAOH c = 0.1 mol/L TITER = 0.99600	
Sensor	DG113-SC	
Start potential		EST = 93.3 mV
Predispense		EPD = -20.3 mV
		VPD = 1.5000 mL
No. of EQPs and cand.		nEQ = 1
Consumption	EQP1	VEQ1 = 5.154563 mL
		Q1 = 0.513394 mmol
		EEQ1 = -219.8 mV
		EHNV1 = -30.2 mV
Excess		VEX = 0.833437 mL
		QEX = 0.083010 mmol
End		VEND = 5.9880 mL
		QEND = 0.596405 mmol
Termination at	EQPs	
Time	t = 3:22 min	

Calculation

Result	R1 = 0.99813 -- Titer
Formula	R1=m/(VEQ*c*C)
Constant	M/(10*p*z)
	C = 0.12212
Molar mass	M[Benzoic acid] = 122.12 g/mol
Equivalent number	z[Benzoic acid] = 1
Duration	tUSE = 04:25 min

Measured values EQP titration [1]

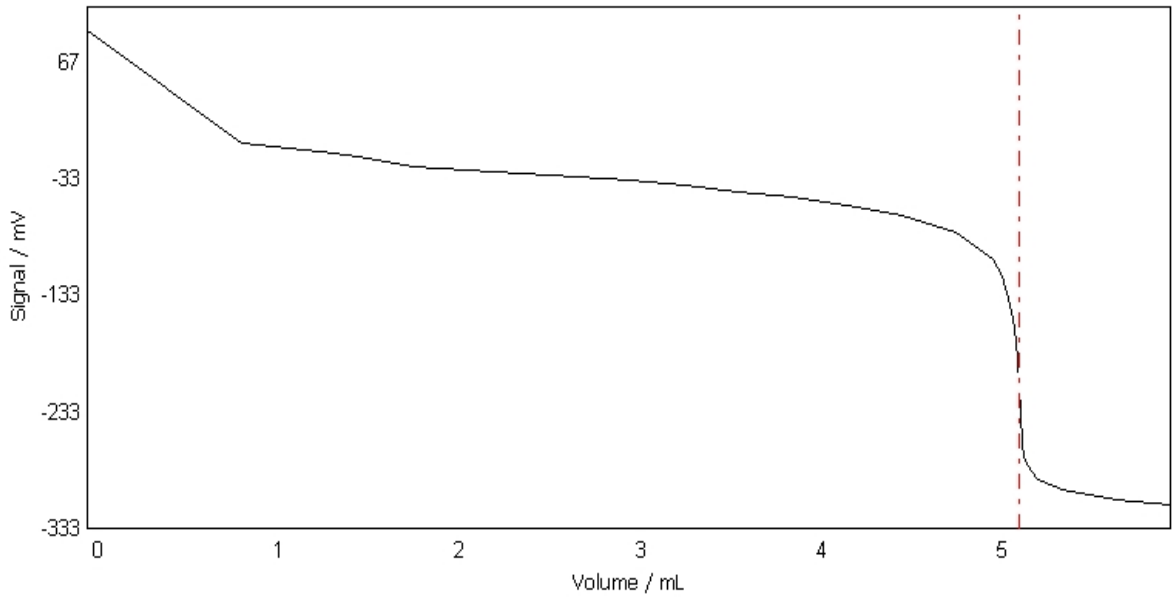
Titrant	TBAOH c = 0.1 mol/L TITER = 0.99600
Sensor	DG113-SC
Sample	5/6

	Volume mL	Increment mL	Signal mV	Change mV	1st deriv. mV/mL	Time s	Temperature oC
	0.0000	NaN	93.3	NaN	NaN	0	25.0
	0.8570	0.8570	-3.2	-96.5	NaN	7	25.0
	1.2855	0.4285	-9.5	-6.3	NaN	10	25.0
	1.5000	0.2145	-14.3	-4.8	NaN	13	25.0
	1.8000	0.3000	-22.5	-8.2	NaN	46	25.0
	2.1000	0.3000	-25.2	-2.7	-5.67	50	25.0
	2.4000	0.3000	-28.2	-3.0	-12.37	53	25.0
	2.7000	0.3000	-31.5	-3.3	-10.77	56	25.0
	3.0000	0.3000	-35.2	-3.7	-11.50	59	25.0
	3.3000	0.3000	-39.0	-3.8	-13.63	62	25.0
	3.6000	0.3000	-44.8	-5.8	-14.33	66	25.0
	3.9000	0.3000	-49.2	-4.4	-18.50	69	25.0
	4.2000	0.3000	-55.8	-6.6	-29.51	73	25.0
	4.5000	0.3000	-65.5	-9.7	-54.47	77	25.0
	4.8000	0.3000	-79.9	-14.4	-115.06	83	25.0
	5.0100	0.2100	-102.4	-22.5	-229.05	90	25.0
	5.0600	0.0500	-116.8	-14.4	-346.66	96	25.0
	5.0755	0.0155	-126.2	-9.4	-497.79	102	25.0
	5.0855	0.0100	-131.5	-5.3	-785.20	106	25.0
	5.1105	0.0250	-146.8	-15.3	-1137.87	112	25.0
	5.1275	0.0170	-161.4	-14.6	-1376.65	118	25.0
	5.1375	0.0100	-173.1	-11.7	-1834.03	124	25.0
	5.1475	0.0100	-187.9	-14.8	-1986.23	131	25.0
EQP1	5.154563	NaN	-219.8	NaN	-2016.00	NaN	NaN
	5.1575	0.0100	-233.1	-45.2	-1279.23	148	25.0
	5.1675	0.0100	-259.2	-26.1	-1384.01	159	25.0
	5.1775	0.0100	-271.2	-12.0	-894.73	165	25.0
	5.1990	0.0215	-280.3	-9.1	NaN	170	25.0

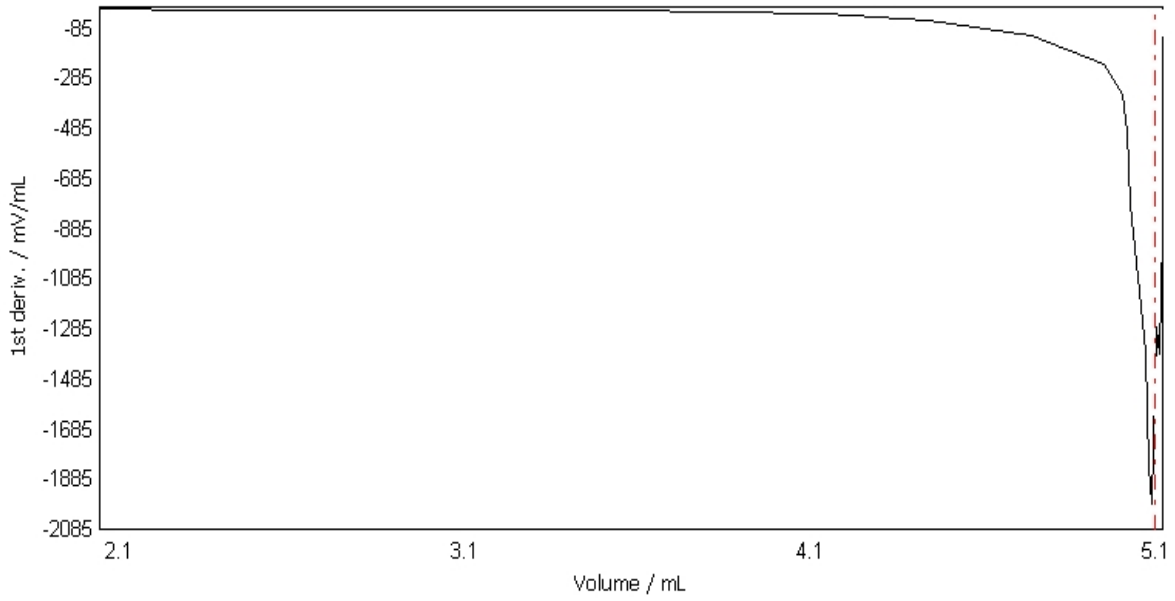
Method: **TBAOH** **Titer with EQP of 0.1 TBAOH** **7/30/2012 2:43:41 PM**
Start time: **7/30/2012 5:47:15 PM**

Volume mL	Increment mL	Signal mV	Change mV	1st deriv. mV/mL	Time s	Temperature oC
5.2530	0.0540	-290.5	-10.2	NaN	174	25.0
5.3880	0.1350	-300.4	-9.9	NaN	178	25.0
5.6880	0.3000	-308.1	-7.7	NaN	182	25.0
5.9880	0.3000	-312.6	-4.5	NaN	186	25.0

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



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



Raw data

Method:	**TBAOH**	**Titer with EQP of 0.1 TBAOH**	**7/30/2012 2:43:41 PM**
Start time:	**7/30/2012 5:47:15 PM**		

Raw data

Sample

No.	6/6
Standard	Benzoic acid
Type of standard	solid
Comment	
Titration stand	Rondo60/1A
Weight	m = 0.07272 g
Correction factor	f = 1.0
Purity	p = 100.00 %
Temperature	T = 25.0 oC
Sample start	7/30/2012 6:11:16 PM
Sample end	7/30/2012 6:16:31 PM

EQP titration [1]

Titrant	TBAOH c = 0.1 mol/L TITER = 0.99600	
Sensor	DG113-SC	
Start potential		EST = 98.1 mV
Predispense		EPD = -15.2 mV
		VPD = 1.5000 mL
No. of EQPs and cand.		nEQ = 1
Consumption	EQP1	VEQ1 = 5.954545 mL
		Q1 = 0.593073 mmol
		EEQ1 = -199.4 mV
		EHNV1 = -28.1 mV
Excess		VEX = 0.934955 mL
		QEX = 0.093122 mmol
End		VEND = 6.8895 mL
		QEND = 0.686194 mmol
Termination at	EQPs	
Time	t = 3:34 min	

Calculation

Result	R1 = 1.00004 -- Titer
Formula	R1=m/(VEQ*c*C)
Constant	M/(10*p*z)
	C = 0.12212
Molar mass	M[Benzoic acid] = 122.12 g/mol
Equivalent number	z[Benzoic acid] = 1
Duration	tUSE = 04:39 min

Measured values EQP titration [1]

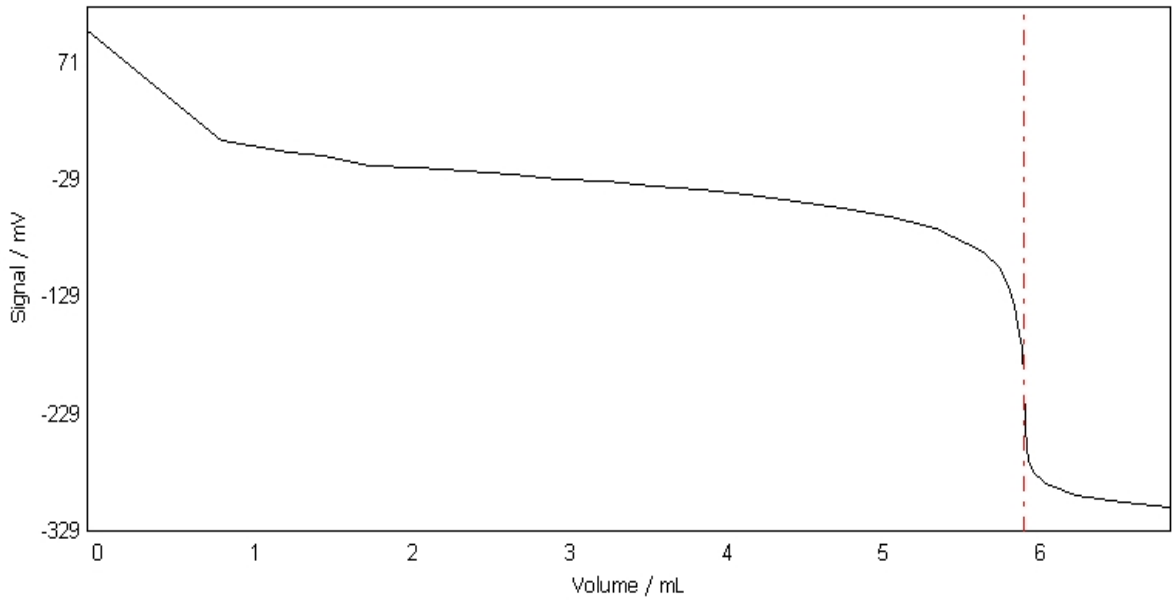
Titrant	TBAOH c = 0.1 mol/L TITER = 0.99600
Sensor	DG113-SC
Sample	6/6

Volume mL	Increment mL	Signal mV	Change mV	1st deriv. mV/mL	Time s	Temperature oC
0.0000	NaN	98.1	NaN	NaN	0	25.0
0.8570	0.8570	4.4	-93.7	NaN	5	25.0
1.2855	0.4285	-6.0	-10.4	NaN	10	25.0
1.5000	0.2145	-9.6	-3.6	NaN	14	25.0
1.8000	0.3000	-17.0	-7.4	NaN	47	25.0
2.1000	0.3000	-19.2	-2.2	-5.09	50	25.0
2.4000	0.3000	-22.2	-3.0	-10.11	54	25.0
2.7000	0.3000	-24.8	-2.6	-9.36	57	25.0
3.0000	0.3000	-28.4	-3.6	-9.37	60	25.0
3.3000	0.3000	-31.2	-2.8	-11.04	63	25.0
3.6000	0.3000	-35.1	-3.9	-11.60	66	25.0
3.9000	0.3000	-38.2	-3.1	-12.89	70	25.0
4.2000	0.3000	-42.4	-4.2	-13.34	73	25.0

Method: **TBAOH** **Titer with EQP of 0.1 TBAOH** **7/30/2012 2:43:41 PM**
Start time: **7/30/2012 5:47:15 PM**

	Volume mL	Increment mL	Signal mV	Change mV	1st deriv. mV/mL	Time s	Temperature oC
	4.5000	0.3000	-47.9	-5.5	-15.87	77	25.0
	4.8000	0.3000	-53.2	-5.3	-21.96	80	25.0
	5.1000	0.3000	-61.2	-8.0	-35.88	85	25.0
	5.4000	0.3000	-70.7	-9.5	-66.98	90	25.0
	5.7000	0.3000	-90.7	-20.0	-151.44	98	25.0
	5.8085	0.1085	-106.1	-15.4	-241.50	105	25.0
	5.8480	0.0395	-116.7	-10.6	-345.21	111	25.0
	5.8715	0.0235	-124.6	-7.9	-495.69	115	25.0
	5.9000	0.0285	-137.5	-12.9	-844.40	121	25.0
	5.9195	0.0195	-152.4	-14.9	-1170.60	128	25.0
	5.9295	0.0100	-160.5	-8.1	-1246.93	132	25.0
	5.9435	0.0140	-173.9	-13.4	-1710.67	138	25.0
	5.9545	0.0110	-199.2	-25.3	-1612.42	150	25.0
EQP1	5.954545	NaN	-199.4	NaN	-1715.35	NaN	NaN
	5.9645	0.0100	-239.2	-40.0	-1237.82	163	25.0
	5.9745	0.0100	-258.8	-19.6	-1189.07	173	25.0
	5.9870	0.0125	-268.7	-9.9	-730.08	178	25.0
	6.0180	0.0310	-279.2	-10.5	NaN	182	25.0
	6.0955	0.0775	-289.2	-10.0	NaN	187	25.0
	6.2895	0.1940	-298.6	-9.4	NaN	191	25.0
	6.5895	0.3000	-304.7	-6.1	NaN	194	25.0
	6.8895	0.3000	-308.3	-3.6	NaN	197	25.0

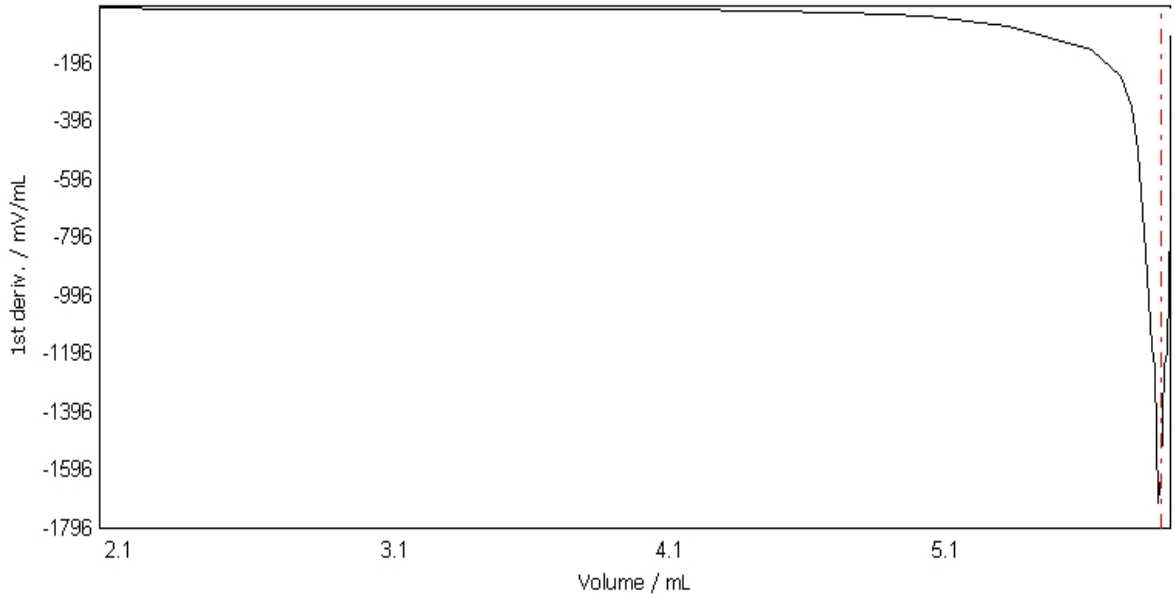
E - V curve **EQP titration [1]**
Sample 6/6



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

Method:	**TBAOH**	**Titer with EQP of 0.1 TBAOH**	**7/30/2012 2:43:41 PM**
Start time:	**7/30/2012 5:47:15 PM**		

Sample 6/6



Raw data

Calculation

Result	R2 = 0.998 -- Mean Titer
Formula	R2=Mean[R1]
Constant	1
	C = 1
Molar mass	M[None] = 1 g/mol
Equivalent number	z[None] = 1

Titer

Titrant	TBAOH c = 0.1 mol/L
Titer	0.99818

(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), 7/30/2012 5:52:09 PM**