Method: **FAS** **FAS Titer with EQP** **8/10/2012 1:14:43 PM**
Start time: **8/10/2012 1:16:27 PM**

Sample data

No.	Comment / ID	Start time	Sample size	Corr. f	Density
1/6	Potassium dichromate	8/10/2012 1:16:27 PM	0.03428 g	1.0	0 g/mL
2/6	Potassium dichromate	8/10/2012 1:23:46 PM	0.02937 g	1.0	0 g/mL
3/6	Potassium dichromate	8/10/2012 1:30:03 PM	0.03332 g	1.0	0 g/mL
4/6	Potassium dichromate	8/10/2012 1:36:56 PM	0.03123 g	1.0	0 g/mL
5/6	Potassium dichromate	8/10/2012 1:43:23 PM	0.03332 g	1.0	0 g/mL
6/6	Potassium dichromate	8/10/2012 1:50:35 PM	0.02669 g	1.0	0 g/mL

Results

No.	Comment / ID	Start time	Sample size and results		
1/6	Potassium dichromate	8/10/2012 1:16:27 PM	0.03428	g	
			R1 = 0.99355	--	Titer
2/6	Potassium dichromate	8/10/2012 1:23:46 PM	0.02937	g	
			R1 = 0.99231	--	Titer
3/6	Potassium dichromate	8/10/2012 1:30:03 PM	0.03332	g	
			R1 = 0.99522	--	Titer
4/6	Potassium dichromate	8/10/2012 1:36:56 PM	0.03123	g	
			R1 = 0.99209	--	Titer
5/6	Potassium dichromate	8/10/2012 1:43:23 PM	0.03332	g	
			R1 = 0.99459	--	Titer
6/6	Potassium dichromate	8/10/2012 1:50:35 PM	0.02669	g	
			R1 = 0.99334	--	Titer
-/-			R2 = 0.994	--	Mean Titer

Titer

Titer	0.99352

Series comment

Statistics

Rx	Name	n	Mean value	Unit	s	srel [%]
R1	Titer	6	0.99352	--	0.00123	0.124
R2	Mean Titer	1	0.994	--	NaN	NaN

Raw data

Sample

No.	1/6

Method: **FAS** **FAS Titer with EQP** **8/10/2012 1:14:43 PM**
Start time: **8/10/2012 1:16:27 PM**

Standard	Potassium dichromate
Type of standard	solid
Comment	
Titration stand	Rondo60/1A
Weight	m = 0.03428 g
Correction factor	f = 1.0
Purity	p = 100.00 %
Temperature	T = 25.0 oC
Sample start	8/10/2012 1:16:27 PM
Sample end	8/10/2012 1:23:46 PM

EQP titration [1]

Titrant	F(II)AS c = 0.1 mol/L TITER = 0.98341	
Sensor	DM140-SC	
Start potential		EST = 890.1 mV
Predispense		EPD = 915.6 mV
		VPD = 4.0000 mL
No. of EQPs and cand.		nEQ = 1
Consumption	EQP1	VEQ1 = 7.036722 mL
		Q1 = 0.691998 mmol
		EEQ1 = 768.7 mV
		EHNV1 = 896.8 mV
Excess		VEX = 0.463278 mL
		QEX = 0.045559 mmol
End		VEND = 7.5000 mL
		QEND = 0.737558 mmol
Termination at	EQPs	
Time	t = 5:09 min	

Calculation

Result	R1 = 0.99355 -- Titer
Formula	R1=m/(VEQ*c*C)
Constant	M/(10*p*z)
	C = 0.049032
Molar mass	M[Potassium dichromate] = 294.19 g/mol
Equivalent number	z[Potassium dichromate] = 6
Duration	tUSE = 06:46 min

Measured values EQP titration [1]

Titrant	F(II)AS c = 0.1 mol/L TITER = 0.98341
Sensor	DM140-SC
Sample	1/6

Volume mL	Increment mL	Signal mV	Change mV	1st deriv. mV/mL	Time s	Temperature oC
0.0000	NaN	890.1	NaN	NaN	0	25.0
4.0000	4.0000	897.7	7.6	NaN	10	25.0
4.0500	0.0500	917.1	19.4	NaN	43	25.0
4.1000	0.0500	918.6	1.5	NaN	46	25.0
4.1500	0.0500	920.1	1.5	NaN	49	25.0
4.2000	0.0500	921.6	1.5	58.08	52	25.0
4.2500	0.0500	923.0	1.4	8.05	55	25.0
4.3000	0.0500	924.5	1.5	28.41	58	25.0
4.3500	0.0500	925.9	1.4	27.96	61	25.0
4.4000	0.0500	927.2	1.3	27.80	64	25.0
4.4500	0.0500	928.7	1.5	27.60	67	25.0
4.5000	0.0500	930.0	1.3	27.48	70	25.0
4.5500	0.0500	931.4	1.4	27.53	73	25.0
4.6000	0.0500	932.8	1.4	27.31	76	25.0
4.6500	0.0500	934.1	1.3	26.89	79	25.0
4.7000	0.0500	935.5	1.4	26.72	82	25.0
4.7500	0.0500	936.8	1.3	26.28	85	25.0
4.8000	0.0500	938.1	1.3	26.09	88	25.0

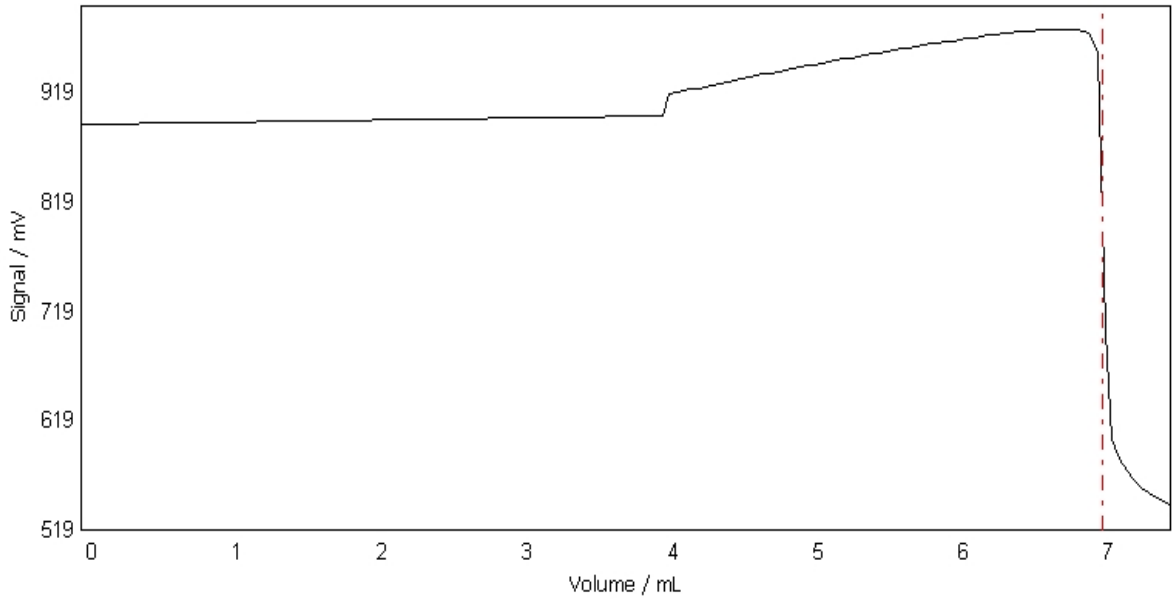
Method: **FAS** **FAS Titer with EQP** **8/10/2012 1:14:43 PM**
Start time: **8/10/2012 1:16:27 PM**

	Volume mL	Increment mL	Signal mV	Change mV	1st deriv. mV/mL	Time s	Temperature oC
	4.8500	0.0500	939.4	1.3	26.11	91	25.0
	4.9000	0.0500	940.7	1.3	25.89	94	25.0
	4.9500	0.0500	942.0	1.3	25.91	97	25.0
	5.0000	0.0500	943.3	1.3	25.60	100	25.0
	5.0500	0.0500	944.6	1.3	25.40	104	25.0
	5.1000	0.0500	945.8	1.2	25.20	106	25.0
	5.1500	0.0500	947.1	1.3	25.00	110	25.0
	5.2000	0.0500	948.3	1.2	24.91	113	25.0
	5.2500	0.0500	949.6	1.3	24.60	116	25.0
	5.3000	0.0500	950.8	1.2	24.19	119	25.0
	5.3500	0.0500	952.0	1.2	23.80	122	25.0
	5.4000	0.0500	953.2	1.2	23.60	125	25.0
	5.4500	0.0500	954.3	1.1	23.28	128	25.0
	5.5000	0.0500	955.5	1.2	23.00	131	25.0
	5.5500	0.0500	956.7	1.2	22.91	134	25.0
	5.6000	0.0500	957.8	1.1	22.69	137	25.0
	5.6500	0.0500	958.9	1.1	22.51	140	25.0
	5.7000	0.0500	960.0	1.1	22.11	143	25.0
	5.7500	0.0500	961.2	1.2	21.80	146	25.0
	5.8000	0.0500	962.2	1.0	21.40	149	25.0
	5.8500	0.0500	963.3	1.1	20.80	152	25.0
	5.9000	0.0500	964.3	1.0	20.40	155	25.0
	5.9500	0.0500	965.3	1.0	20.09	158	25.0
	6.0000	0.0500	966.3	1.0	19.91	161	25.0
	6.0500	0.0500	967.3	1.0	19.51	164	25.0
	6.1000	0.0500	968.3	1.0	19.00	167	25.0
	6.1500	0.0500	969.2	0.9	18.51	170	25.0
	6.2000	0.0500	970.1	0.9	17.92	174	25.0
	6.2500	0.0500	971.0	0.9	17.20	176	25.0
	6.3000	0.0500	971.8	0.8	16.51	180	25.0
	6.3500	0.0500	972.7	0.9	15.84	183	25.0
	6.4000	0.0500	973.4	0.7	14.92	186	25.0
	6.4500	0.0500	974.1	0.7	13.84	189	25.0
	6.5000	0.0500	974.8	0.7	12.66	192	25.0
	6.5500	0.0500	975.4	0.6	11.15	195	25.0
	6.6000	0.0500	975.9	0.5	9.27	198	25.0
	6.6500	0.0500	976.3	0.4	7.48	201	25.0
	6.7000	0.0500	976.6	0.3	6.33	204	25.0
	6.7500	0.0500	976.7	0.1	19.07	207	25.0
	6.8000	0.0500	976.6	-0.1	284.28	210	25.0
	6.8500	0.0500	976.4	-0.2	65.66	213	25.0
	6.9000	0.0500	975.3	-1.1	-586.15	216	25.0
	6.9500	0.0500	972.5	-2.8	-1310.42	219	25.0
	7.0000	0.0500	954.7	-17.8	-1829.56	224	25.0
EQP1	7.036722	NaN	768.7	NaN	-1976.66	NaN	NaN
	7.0500	0.0500	701.5	-253.2	-1976.22	254	25.0
	7.1000	0.0500	603.1	-98.4	-1705.83	266	25.0
	7.1500	0.0500	584.6	-18.5	-1102.99	269	25.0
	7.2000	0.0500	573.1	-11.5	-382.43	272	25.0
	7.2500	0.0500	564.8	-8.3	112.39	275	25.0
	7.3000	0.0500	558.3	-6.5	NaN	278	25.0
	7.3500	0.0500	553.2	-5.1	NaN	282	25.0
	7.4000	0.0500	549.0	-4.2	NaN	285	25.0
	7.4500	0.0500	545.4	-3.6	NaN	288	25.0
	7.5000	0.0500	542.1	-3.3	NaN	291	25.0

Method:	**FAS**	**FAS Titer with EQP**	**8/10/2012 1:14:43 PM**
Start time:	**8/10/2012 1:16:27 PM**		

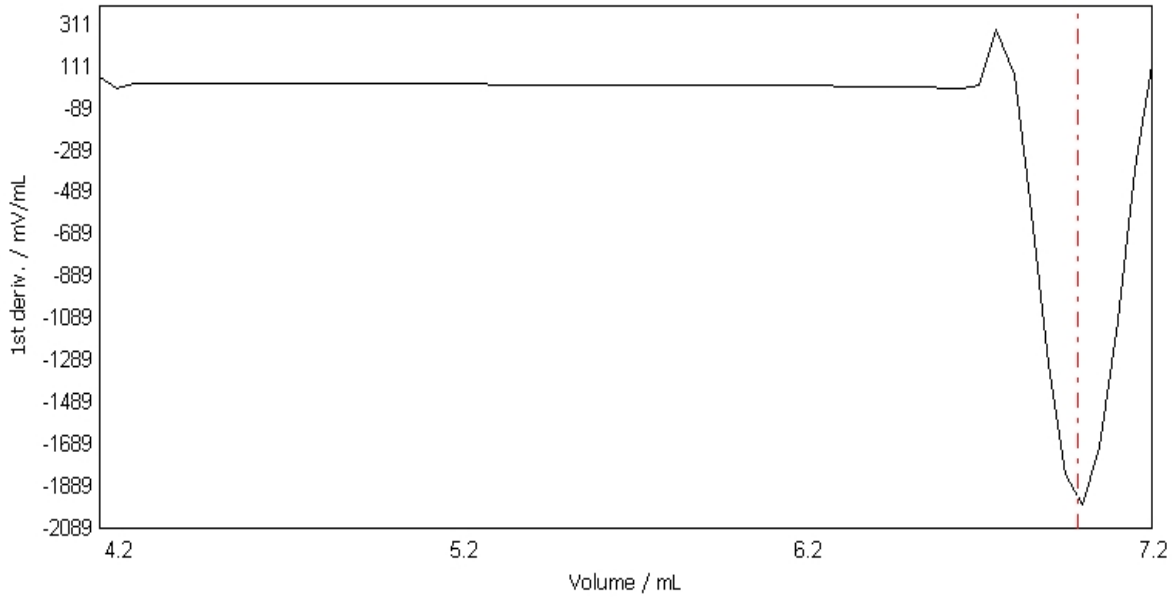
E - V curve EQP titration [1]

Sample 1/6



dE/dV - V curve EQP titration [1]

Sample 1/6



Raw data

Sample

No.	2/6
Standard	Potassium dichromate
Type of standard	solid
Comment	
Titration stand	Rondo60/1A
Weight	m = 0.02937 g
Correction factor	f = 1.0
Purity	p = 100.00 %

Method: FAS FAS Titer with EQP 8/10/2012 1:14:43 PM
Start time: 8/10/2012 1:16:27 PM

Temperature	T = 25.0 oC
Sample start	8/10/2012 1:23:46 PM
Sample end	8/10/2012 1:30:03 PM

EQP titration [1]

Titrant	F(II)AS c = 0.1 mol/L TITER = 0.98341	
Sensor	DM140-SC	
Start potential		EST = 896.7 mV
Predispense		EPD = 925.9 mV
		VPD = 4.0000 mL
No. of EQPs and cand.		nEQ = 1
Consumption	EQP1	VEQ1 = 6.036410 mL
		Q1 = 0.593627 mmol
		EEQ1 = 763.5 mV
		EHNV1 = 903.6 mV
Excess		VEX = 0.463590 mL
		QEX = 0.045590 mmol
End		VEND = 6.5000 mL
		QEND = 0.639216 mmol
Termination at	EQPs	
Time	t = 4:04 min	

Calculation

Result	R1 = 0.99231 -- Titer
Formula	R1=m/(VEQ*c*C)
Constant	M/(10*p*z)
	C = 0.049032
Molar mass	M[Potassium dichromate] = 294.19 g/mol
Equivalent number	z[Potassium dichromate] = 6
Duration	tUSE = 05:42 min

Measured values EQP titration [1]

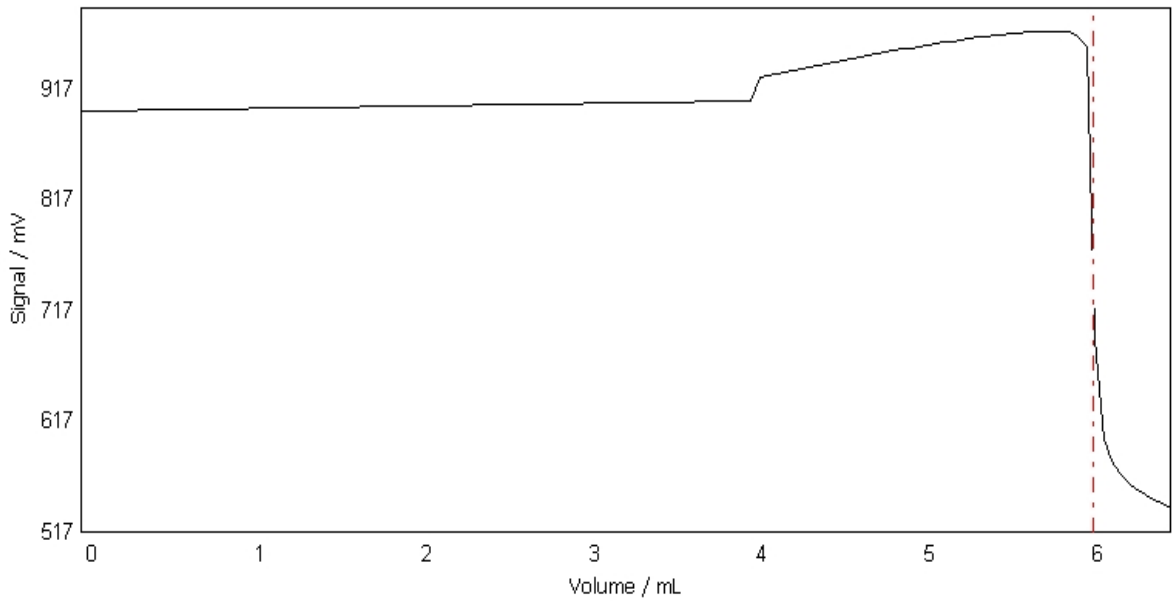
Titrant	F(II)AS c = 0.1 mol/L TITER = 0.98341
Sensor	DM140-SC
Sample	2/6

Volume mL	Increment mL	Signal mV	Change mV	1st deriv. mV/mL	Time s	Temperature oC
0.0000	NaN	896.7	NaN	NaN	0	25.0
4.0000	4.0000	905.9	9.2	NaN	10	25.0
4.0500	0.0500	927.6	21.7	NaN	44	25.0
4.1000	0.0500	929.3	1.7	NaN	47	25.0
4.1500	0.0500	930.9	1.6	NaN	50	25.0
4.2000	0.0500	932.5	1.6	64.08	53	25.0
4.2500	0.0500	934.0	1.5	7.78	56	25.0
4.3000	0.0500	935.6	1.6	31.00	59	25.0
4.3500	0.0500	937.1	1.5	30.80	62	25.0
4.4000	0.0500	938.7	1.6	30.51	65	25.0
4.4500	0.0500	940.2	1.5	30.12	68	25.0
4.5000	0.0500	941.7	1.5	29.49	71	25.0
4.5500	0.0500	943.1	1.4	29.00	74	25.0
4.6000	0.0500	944.6	1.5	28.60	77	25.0
4.6500	0.0500	946.0	1.4	28.40	80	25.0
4.7000	0.0500	947.4	1.4	28.00	83	25.0
4.7500	0.0500	948.8	1.4	27.51	86	25.0
4.8000	0.0500	950.2	1.4	27.00	89	25.0
4.8500	0.0500	951.5	1.3	26.60	92	25.0
4.9000	0.0500	952.8	1.3	26.00	95	25.0
4.9500	0.0500	954.1	1.3	25.51	98	25.0
5.0000	0.0500	955.4	1.3	24.89	102	25.0
5.0500	0.0500	956.6	1.2	24.51	104	25.0
5.1000	0.0500	957.8	1.2	23.92	108	25.0
5.1500	0.0500	959.0	1.2	23.20	111	25.0
5.2000	0.0500	960.1	1.1	22.51	114	25.0
5.2500	0.0500	961.3	1.2	21.84	117	25.0

Method: **FAS** **FAS Titer with EQP** **8/10/2012 1:14:43 PM**
Start time: **8/10/2012 1:16:27 PM**

	Volume mL	Increment mL	Signal mV	Change mV	1st deriv. mV/mL	Time s	Temperature oC
	5.3000	0.0500	962.3	1.0	20.80	120	25.0
	5.3500	0.0500	963.3	1.0	19.72	123	25.0
	5.4000	0.0500	964.3	1.0	18.63	126	25.0
	5.4500	0.0500	965.2	0.9	17.64	129	25.0
	5.5000	0.0500	966.0	0.8	16.24	132	25.0
	5.5500	0.0500	966.8	0.8	14.57	135	25.0
	5.6000	0.0500	967.5	0.7	12.59	138	25.0
	5.6500	0.0500	968.1	0.6	10.07	141	25.0
	5.7000	0.0500	968.4	0.3	11.09	144	25.0
	5.7500	0.0500	968.8	0.4	12.97	147	25.0
	5.8000	0.0500	968.8	0.0	295.90	150	25.0
	5.8500	0.0500	968.6	-0.2	73.96	153	25.0
	5.9000	0.0500	968.2	-0.4	-575.00	156	25.0
	5.9500	0.0500	963.9	-4.3	-1295.63	159	25.0
	6.0000	0.0500	954.5	-9.4	-1812.67	162	25.0
EQP1	6.036410	NaN	763.5	NaN	-1961.11	NaN	NaN
	6.0500	0.0500	692.2	-262.3	-1960.74	193	25.0
	6.1000	0.0500	600.2	-92.0	-1694.31	203	25.0
	6.1500	0.0500	581.5	-18.7	-1095.79	207	25.0
	6.2000	0.0500	569.9	-11.6	-379.72	210	25.0
	6.2500	0.0500	561.6	-8.3	122.33	213	25.0
	6.3000	0.0500	555.2	-6.4	NaN	216	25.0
	6.3500	0.0500	550.1	-5.1	NaN	219	25.0
	6.4000	0.0500	545.9	-4.2	NaN	222	25.0
	6.4500	0.0500	542.2	-3.7	NaN	225	25.0
	6.5000	0.0500	539.1	-3.1	NaN	228	25.0

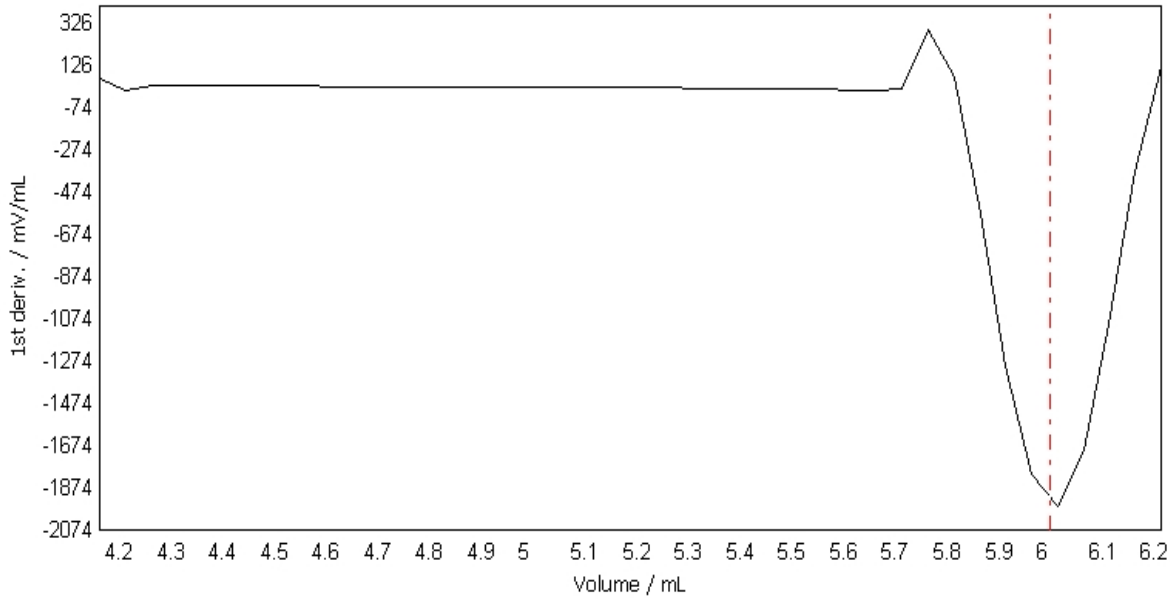
E - V curve **EQP titration [1]**
Sample 2/6



Method:	**FAS**	**FAS Titer with EQP**	**8/10/2012 1:14:43 PM**
Start time:	**8/10/2012 1:16:27 PM**		

dE/dV - V curve EQP titration [1]

Sample 2/6



Raw data

Sample

No.	3/6
Standard	Potassium dichromate
Type of standard	solid
Comment	
Titration stand	Rondo60/1A
Weight	m = 0.03332 g
Correction factor	f = 1.0
Purity	p = 100.00 %
Temperature	T = 25.0 oC
Sample start	8/10/2012 1:30:03 PM
Sample end	8/10/2012 1:36:56 PM

EQP titration [1]

Titrant	F(II)AS c = 0.1 mol/L TITER = 0.98341	
Sensor	DM140-SC	
Start potential		EST = 906.6 mV
Predispense		EPD = 935.0 mV
		VPD = 4.0000 mL
No. of EQPs and cand.		nEQ = 1
Consumption	EQP1	VEQ1 = 6.828207 mL
		Q1 = 0.671493 mmol
		EEQ1 = 769.7 mV
		EHNV1 = 913.9 mV
Excess		VEX = 0.471793 mL
		QEX = 0.046397 mmol
End		VEND = 7.3000 mL
		QEND = 0.717889 mmol
Termination at	EQPs	
Time	t = 4:40 min	

Calculation

Result	R1 = 0.99522 -- Titer

Method: **FAS** **FAS Titer with EQP** **8/10/2012 1:14:43 PM**
Start time: **8/10/2012 1:16:27 PM**

Formula	R1=m/(VEQ*c*C)
Constant	M/(10*p*z)
	C = 0.049032
Molar mass	M[Potassium dichromate] = 294.19 g/mol
Equivalent number	z[Potassium dichromate] = 6
Duration	tUSE = 06:18 min

Measured values **EQP titration [1]**

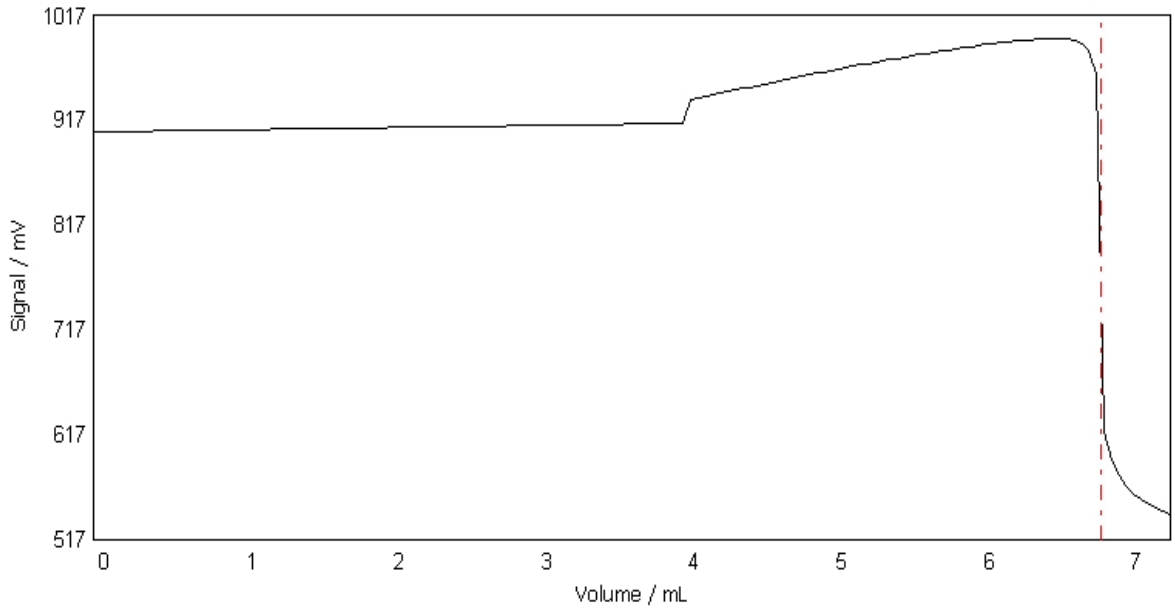
Titrant	F(II)AS c = 0.1 mol/L TITER = 0.98341
Sensor	DM140-SC
Sample	3/6

Volume mL	Increment mL	Signal mV	Change mV	1st deriv. mV/mL	Time s	Temperature oC
0.0000	NaN	906.6	NaN	NaN	0	25.0
4.0000	4.0000	915.2	8.6	NaN	10	25.0
4.0500	0.0500	936.7	21.5	NaN	43	25.0
4.1000	0.0500	938.3	1.6	NaN	46	25.0
4.1500	0.0500	940.0	1.7	NaN	49	25.0
4.2000	0.0500	941.5	1.5	63.78	52	25.0
4.2500	0.0500	943.1	1.6	8.45	55	25.0
4.3000	0.0500	944.7	1.6	31.08	58	25.0
4.3500	0.0500	946.2	1.5	30.80	61	25.0
4.4000	0.0500	947.8	1.6	30.52	64	25.0
4.4500	0.0500	949.3	1.5	30.08	67	25.0
4.5000	0.0500	950.7	1.4	29.69	70	25.0
4.5500	0.0500	952.3	1.6	29.51	73	25.0
4.6000	0.0500	953.7	1.4	29.28	76	25.0
4.6500	0.0500	955.2	1.5	29.21	79	25.0
4.7000	0.0500	956.6	1.4	28.91	82	25.0
4.7500	0.0500	958.1	1.5	28.60	85	25.0
4.8000	0.0500	959.5	1.4	28.40	88	25.0
4.8500	0.0500	960.9	1.4	28.00	91	25.0
4.9000	0.0500	962.3	1.4	27.60	94	25.0
4.9500	0.0500	963.7	1.4	27.28	97	25.0
5.0000	0.0500	965.0	1.3	27.20	100	25.0
5.0500	0.0500	966.4	1.4	27.00	104	25.0
5.1000	0.0500	967.7	1.3	26.91	106	25.0
5.1500	0.0500	969.1	1.4	26.60	110	25.0
5.2000	0.0500	970.4	1.3	26.31	113	25.0
5.2500	0.0500	971.7	1.3	25.81	116	25.0
5.3000	0.0500	973.0	1.3	25.40	119	25.0
5.3500	0.0500	974.2	1.2	24.88	122	25.0
5.4000	0.0500	975.5	1.3	24.60	125	25.0
5.4500	0.0500	976.7	1.2	24.40	128	25.0
5.5000	0.0500	977.9	1.2	24.21	131	25.0
5.5500	0.0500	979.1	1.2	23.91	134	25.0
5.6000	0.0500	980.3	1.2	23.40	137	25.0
5.6500	0.0500	981.5	1.2	23.12	140	25.0
5.7000	0.0500	982.6	1.1	22.60	143	25.0
5.7500	0.0500	983.7	1.1	22.00	146	25.0
5.8000	0.0500	984.8	1.1	21.51	149	25.0
5.8500	0.0500	985.9	1.1	21.00	152	25.0
5.9000	0.0500	986.9	1.0	20.52	155	25.0
5.9500	0.0500	987.9	1.0	19.72	158	25.0
6.0000	0.0500	988.9	1.0	18.91	161	25.0
6.0500	0.0500	989.8	0.9	18.12	164	25.0
6.1000	0.0500	990.7	0.9	17.12	167	25.0
6.1500	0.0500	991.5	0.8	15.91	170	25.0
6.2000	0.0500	992.3	0.8	14.84	174	25.0
6.2500	0.0500	993.0	0.7	13.64	176	25.0
6.3000	0.0500	993.6	0.6	12.27	180	25.0
6.3500	0.0500	994.2	0.6	10.62	183	25.0
6.4000	0.0500	994.7	0.5	8.33	186	25.0
6.4500	0.0500	995.0	0.3	7.50	189	25.0
6.5000	0.0500	995.2	0.2	6.09	192	25.0
6.5500	0.0500	995.1	-0.1	14.76	195	25.0
6.6000	0.0500	994.7	-0.4	365.51	198	25.0
6.6500	0.0500	993.9	-0.8	-52.00	201	25.0
6.7000	0.0500	990.7	-3.2	-821.56	204	25.0
6.7500	0.0500	984.5	-6.2	-1571.66	207	25.0
6.8000	0.0500	962.0	-22.5	-2037.03	212	25.0

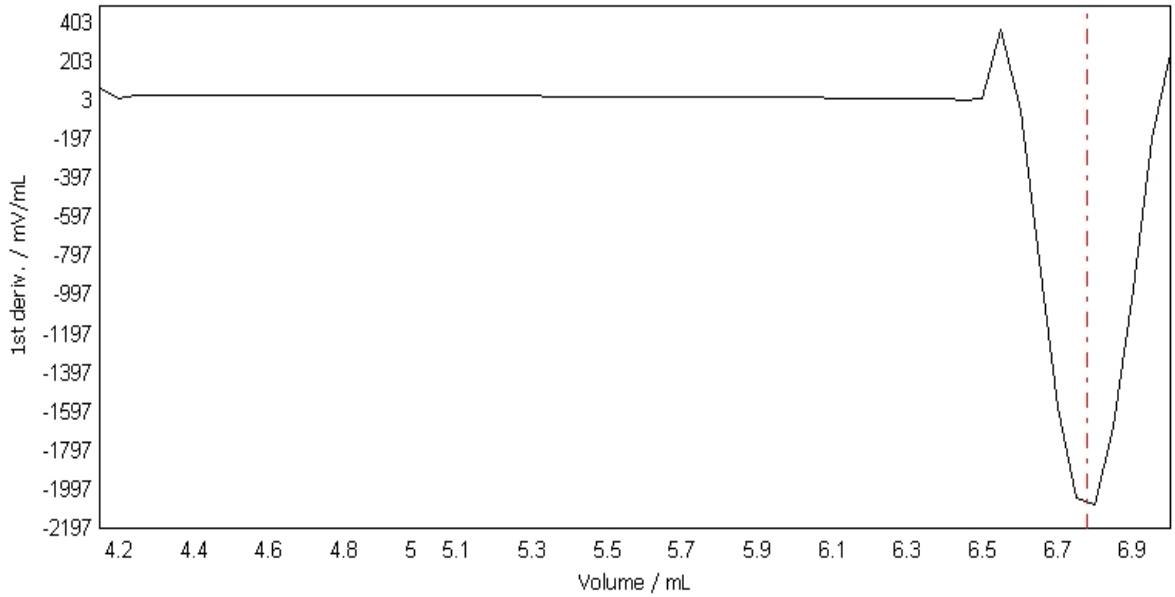
Method: **FAS** **FAS Titer with EQP** **8/10/2012 1:14:43 PM**
Start time: **8/10/2012 1:16:27 PM**

	Volume mL	Increment mL	Signal mV	Change mV	1st deriv. mV/mL	Time s	Temperature oC
EQP1	6.828207	NaN	769.7	NaN	-2082.27	NaN	NaN
	6.8500	0.0500	621.2	-340.8	-2074.87	234	25.0
	6.9000	0.0500	592.4	-28.8	-1674.68	238	25.0
	6.9500	0.0500	578.0	-14.4	-963.04	241	25.0
	7.0000	0.0500	568.3	-9.7	-196.47	244	25.0
	7.0500	0.0500	561.2	-7.1	241.51	247	25.0
	7.1000	0.0500	555.6	-5.6	NaN	250	25.0
	7.1500	0.0500	551.0	-4.6	NaN	254	25.0
	7.2000	0.0500	547.1	-3.9	NaN	257	25.0
	7.2500	0.0500	543.7	-3.4	NaN	260	25.0
	7.3000	0.0500	540.7	-3.0	NaN	263	25.0

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



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



Method:	**FAS**	**FAS Titer with EQP**	**8/10/2012 1:14:43 PM**
Start time:	**8/10/2012 1:16:27 PM**		

Raw data

Sample

No.	4/6
Standard	Potassium dichromate
Type of standard	solid
Comment	
Titration stand	Rondo60/1A
Weight	m = 0.03123 g
Correction factor	f = 1.0
Purity	p = 100.00 %
Temperature	T = 25.0 oC
Sample start	8/10/2012 1:36:56 PM
Sample end	8/10/2012 1:43:23 PM

EQP titration [1]

Titrant	F(II)AS c = 0.1 mol/L TITER = 0.98341	
Sensor	DM140-SC	
Start potential		EST = 909.1 mV
Predispense		EPD = 940.2 mV
		VPD = 4.0000 mL
No. of EQPs and cand.		nEQ = 1
Consumption	EQP1	VEQ1 = 6.420115 mL
		Q1 = 0.631361 mmol
		EEQ1 = 787.3 mV
		EHNV1 = 916.7 mV
Excess		VEX = 0.479885 mL
		QEX = 0.047192 mmol
End		VEND = 6.9000 mL
		QEND = 0.678553 mmol
Termination at	EQPs	
Time	t = 4:12 min	

Calculation

Result	R1 = 0.99209 -- Titer
Formula	R1=m/(VEQ*c*C)
Constant	M/(10*p*z)
	C = 0.049032
Molar mass	M[Potassium dichromate] = 294.19 g/mol
Equivalent number	z[Potassium dichromate] = 6
Duration	tUSE = 05:50 min

Measured values EQP titration [1]

Titrant	F(II)AS c = 0.1 mol/L TITER = 0.98341
Sensor	DM140-SC
Sample	4/6

Volume mL	Increment mL	Signal mV	Change mV	1st deriv. mV/mL	Time s	Temperature oC
0.0000	NaN	909.1	NaN	NaN	0	25.0
4.0000	4.0000	918.6	9.5	NaN	10	25.0
4.0500	0.0500	942.0	23.4	NaN	43	25.0
4.1000	0.0500	943.7	1.7	NaN	46	25.0
4.1500	0.0500	945.4	1.7	NaN	49	25.0
4.2000	0.0500	947.2	1.8	68.95	52	25.0
4.2500	0.0500	948.9	1.7	8.62	55	25.0
4.3000	0.0500	950.6	1.7	33.41	58	25.0
4.3500	0.0500	952.2	1.6	32.88	61	25.0
4.4000	0.0500	953.8	1.6	32.60	64	25.0
4.4500	0.0500	955.5	1.7	32.40	67	25.0
4.5000	0.0500	957.1	1.6	32.20	70	25.0
4.5500	0.0500	958.7	1.6	31.92	73	25.0

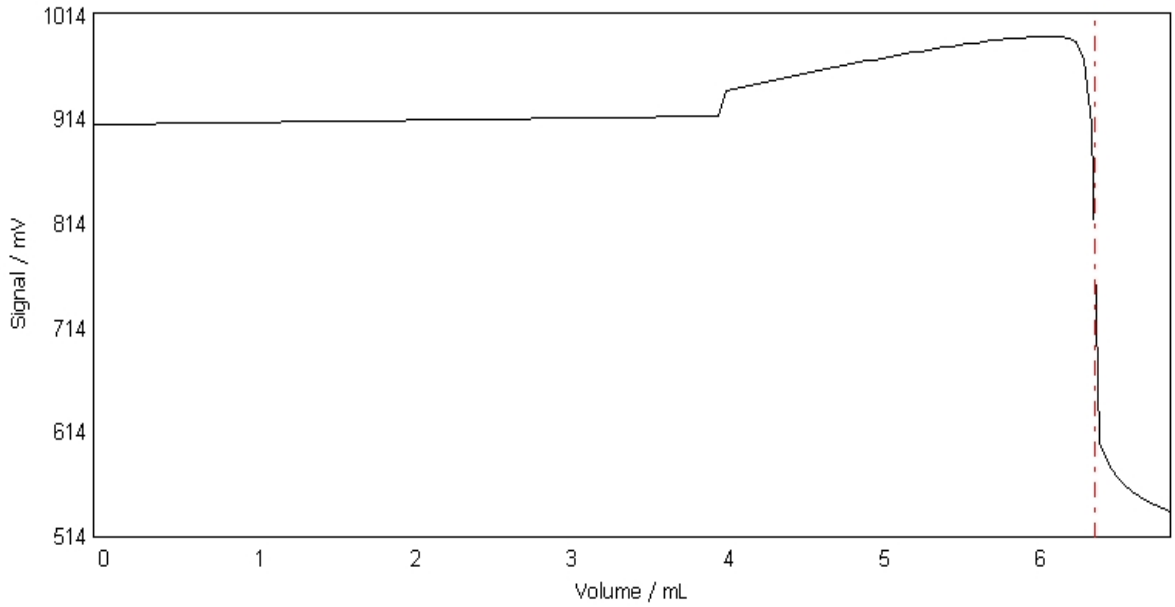
Method: **FAS** **FAS Titer with EQP** **8/10/2012 1:14:43 PM**
Start time: **8/10/2012 1:16:27 PM**

	Volume mL	Increment mL	Signal mV	Change mV	1st deriv. mV/mL	Time s	Temperature oC
	4.6000	0.0500	960.3	1.6	31.40	76	25.0
	4.6500	0.0500	961.8	1.5	30.88	79	25.0
	4.7000	0.0500	963.4	1.6	30.72	82	25.0
	4.7500	0.0500	964.9	1.5	30.28	85	25.0
	4.8000	0.0500	966.4	1.5	30.12	88	25.0
	4.8500	0.0500	967.9	1.5	29.72	91	25.0
	4.9000	0.0500	969.4	1.5	29.08	94	25.0
	4.9500	0.0500	970.8	1.4	28.60	97	25.0
	5.0000	0.0500	972.3	1.5	28.20	100	25.0
	5.0500	0.0500	973.6	1.3	28.00	104	25.0
	5.1000	0.0500	975.0	1.4	27.60	107	25.0
	5.1500	0.0500	976.4	1.4	27.22	110	25.0
	5.2000	0.0500	977.8	1.4	26.49	113	25.0
	5.2500	0.0500	979.1	1.3	26.12	116	25.0
	5.3000	0.0500	980.3	1.2	25.41	119	25.0
	5.3500	0.0500	981.6	1.3	24.80	122	25.0
	5.4000	0.0500	982.8	1.2	24.31	125	25.0
	5.4500	0.0500	984.1	1.3	23.72	128	25.0
	5.5000	0.0500	985.2	1.1	22.91	131	25.0
	5.5500	0.0500	986.3	1.1	21.92	134	25.0
	5.6000	0.0500	987.4	1.1	20.80	137	25.0
	5.6500	0.0500	988.4	1.0	19.80	140	25.0
	5.7000	0.0500	989.4	1.0	19.04	143	25.0
	5.7500	0.0500	990.3	0.9	17.92	146	25.0
	5.8000	0.0500	991.1	0.8	16.63	149	25.0
	5.8500	0.0500	992.0	0.9	15.26	152	25.0
	5.9000	0.0500	992.7	0.7	13.90	155	25.0
	5.9500	0.0500	993.3	0.6	11.36	158	25.0
	6.0000	0.0500	993.8	0.5	8.98	161	25.0
	6.0500	0.0500	994.2	0.4	7.72	164	25.0
	6.1000	0.0500	994.4	0.2	18.87	167	25.0
	6.1500	0.0500	994.1	-0.3	60.49	170	25.0
	6.2000	0.0500	994.0	-0.1	301.40	174	25.0
	6.2500	0.0500	992.9	-1.1	-189.53	176	25.0
	6.3000	0.0500	989.6	-3.3	-968.61	180	25.0
	6.3500	0.0500	972.3	-17.3	-1676.18	187	25.0
	6.4000	0.0500	910.2	-62.1	-2066.26	192	25.0
EQP1	6.420115	NaN	787.3	NaN	-2076.32	NaN	NaN
	6.4500	0.0500	604.7	-305.5	-2019.28	207	25.0
	6.5000	0.0500	584.5	-20.2	-1553.17	210	25.0
	6.5500	0.0500	572.2	-12.3	-822.10	214	25.0
	6.6000	0.0500	563.7	-8.5	-113.13	217	25.0
	6.6500	0.0500	557.3	-6.4	216.92	220	25.0
	6.7000	0.0500	552.2	-5.1	NaN	223	25.0
	6.7500	0.0500	547.9	-4.3	NaN	226	25.0
	6.8000	0.0500	544.2	-3.7	NaN	229	25.0
	6.8500	0.0500	541.1	-3.1	NaN	232	25.0
	6.9000	0.0500	538.2	-2.9	NaN	235	25.0

Method:	**FAS**	**FAS Titer with EQP**	**8/10/2012 1:14:43 PM**
Start time:	**8/10/2012 1:16:27 PM**		

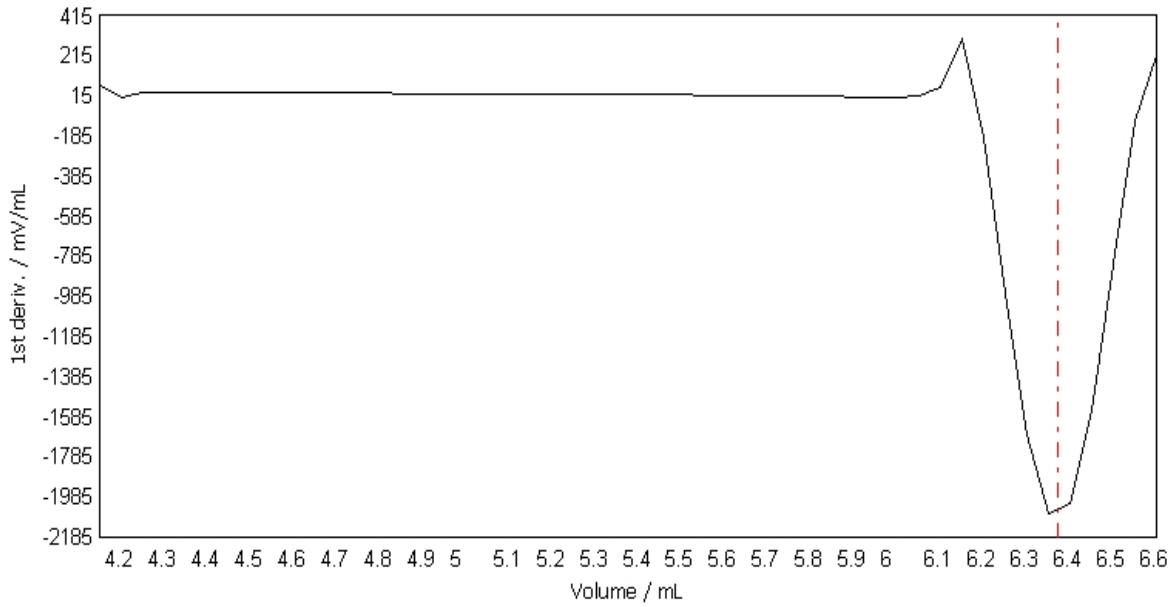
E - V curve EQP titration [1]

Sample 4/6



dE/dV - V curve EQP titration [1]

Sample 4/6



Raw data

Sample

No.	5/6
Standard	Potassium dichromate
Type of standard	solid
Comment	
Titration stand	Rondo60/1A
Weight	m = 0.03332 g
Correction factor	f = 1.0
Purity	p = 100.00 %

Method: FAS FAS Titer with EQP 8/10/2012 1:14:43 PM
Start time: 8/10/2012 1:16:27 PM

Temperature	T = 25.0 oC	
Sample start	8/10/2012 1:43:23 PM	
Sample end	8/10/2012 1:50:34 PM	

EQP titration [1]

Titrant	F(II)AS c = 0.1 mol/L TITER = 0.98341	
Sensor	DM140-SC	
Start potential		EST = 919.7 mV
Predispense		EPD = 952.6 mV
		VPD = 4.0000 mL
No. of EQPs and cand.		nEQ = 1
Consumption	EQP1	VEQ1 = 6.832497 mL
		Q1 = 0.671915 mmol
		EEQ1 = 784.4 mV
		EHNV1 = 929.4 mV
Excess		VEX = 0.467503 mL
		QEX = 0.045975 mmol
End		VEND = 7.3000 mL
		QEND = 0.717889 mmol
Termination at	EQPs	
Time	t = 4:55 min	

Calculation

Result	R1 = 0.99459 -- Titer
Formula	R1=m/(VEQ*c*C)
Constant	M/(10*p*z)
	C = 0.049032
Molar mass	M[Potassium dichromate] = 294.19 g/mol
Equivalent number	z[Potassium dichromate] = 6
Duration	tUSE = 06:34 min

Measured values EQP titration [1]

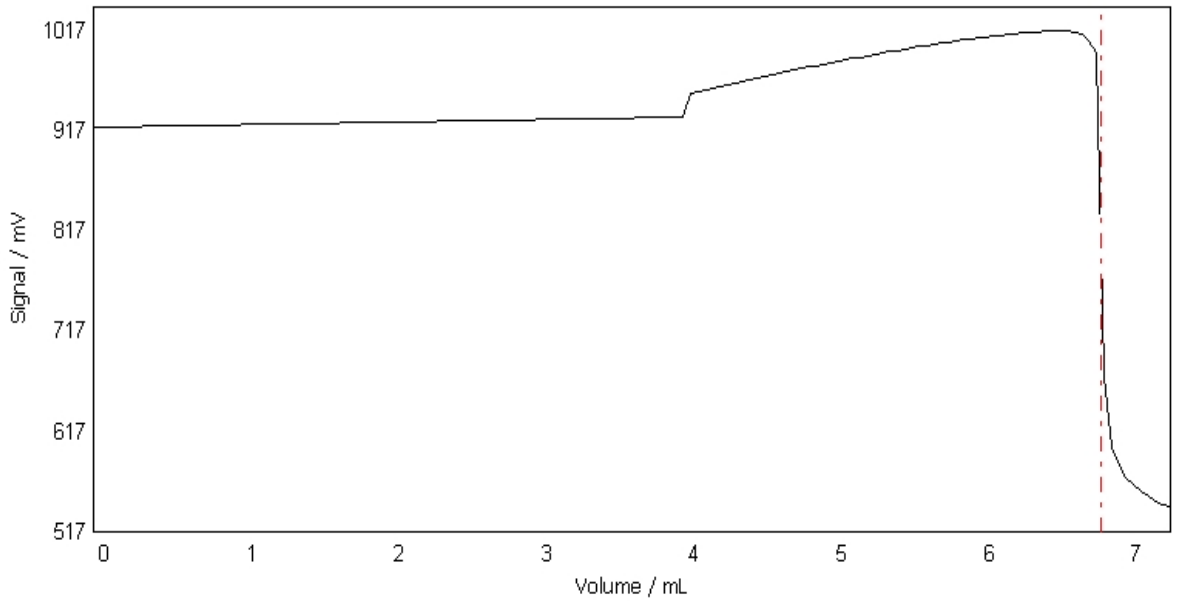
Titrant	F(II)AS c = 0.1 mol/L TITER = 0.98341
Sensor	DM140-SC
Sample	5/6

Volume mL	Increment mL	Signal mV	Change mV	1st deriv. mV/mL	Time s	Temperature oC
0.0000	NaN	919.7	NaN	NaN	0	25.0
4.0000	4.0000	931.0	11.3	NaN	11	25.0
4.0500	0.0500	954.3	23.3	NaN	44	25.0
4.1000	0.0500	956.0	1.7	NaN	48	25.0
4.1500	0.0500	957.8	1.8	NaN	51	25.0
4.2000	0.0500	959.5	1.7	68.54	54	25.0
4.2500	0.0500	961.1	1.6	8.23	57	25.0
4.3000	0.0500	962.8	1.7	33.00	60	25.0
4.3500	0.0500	964.4	1.6	32.68	63	25.0
4.4000	0.0500	966.1	1.7	32.72	66	25.0
4.4500	0.0500	967.7	1.6	32.40	69	25.0
4.5000	0.0500	969.3	1.6	32.00	72	25.0
4.5500	0.0500	970.9	1.6	31.72	75	25.0
4.6000	0.0500	972.5	1.6	31.17	78	25.0
4.6500	0.0500	974.0	1.5	31.11	81	25.0
4.7000	0.0500	975.6	1.6	30.81	84	25.0
4.7500	0.0500	977.1	1.5	30.48	87	25.0
4.8000	0.0500	978.6	1.5	30.32	90	25.0
4.8500	0.0500	980.2	1.6	30.00	93	25.0
4.9000	0.0500	981.6	1.4	29.80	96	25.0
4.9500	0.0500	983.1	1.5	29.53	99	25.0
5.0000	0.0500	984.6	1.5	28.99	102	25.0
5.0500	0.0500	986.0	1.4	28.49	105	25.0
5.1000	0.0500	987.5	1.5	28.32	108	25.0
5.1500	0.0500	988.8	1.3	27.89	112	25.0
5.2000	0.0500	990.2	1.4	27.60	114	25.0
5.2500	0.0500	991.6	1.4	27.31	118	25.0

Method: **FAS** **FAS Titer with EQP** **8/10/2012 1:14:43 PM**
Start time: **8/10/2012 1:16:27 PM**

	Volume mL	Increment mL	Signal mV	Change mV	1st deriv. mV/mL	Time s	Temperature oC
	5.3000	0.0500	993.0	1.4	27.00	121	25.0
	5.3500	0.0500	994.3	1.3	26.72	124	25.0
	5.4000	0.0500	995.6	1.3	26.00	127	25.0
	5.4500	0.0500	996.9	1.3	25.40	130	25.0
	5.5000	0.0500	998.2	1.3	24.88	133	25.0
	5.5500	0.0500	999.4	1.2	24.60	136	25.0
	5.6000	0.0500	1000.6	1.2	24.20	139	25.0
	5.6500	0.0500	1001.8	1.2	23.80	142	25.0
	5.7000	0.0500	1003.0	1.2	23.63	145	25.0
	5.7500	0.0500	1004.2	1.2	23.12	148	25.0
	5.8000	0.0500	1005.3	1.1	22.20	151	25.0
	5.8500	0.0500	1006.4	1.1	21.55	154	25.0
	5.9000	0.0500	1007.5	1.1	20.49	157	25.0
	5.9500	0.0500	1008.4	0.9	19.48	160	25.0
	6.0000	0.0500	1009.4	1.0	18.52	163	25.0
	6.0500	0.0500	1010.4	1.0	17.68	166	25.0
	6.1000	0.0500	1011.1	0.7	17.21	169	25.0
	6.1500	0.0500	1012.0	0.9	16.55	172	25.0
	6.2000	0.0500	1012.8	0.8	15.53	175	25.0
	6.2500	0.0500	1013.6	0.8	14.47	178	25.0
	6.3000	0.0500	1014.3	0.7	12.67	182	25.0
	6.3500	0.0500	1014.8	0.5	10.15	184	25.0
	6.4000	0.0500	1015.3	0.5	8.25	188	25.0
	6.4500	0.0500	1015.6	0.3	6.12	191	25.0
	6.5000	0.0500	1015.7	0.1	8.57	194	25.0
	6.5500	0.0500	1015.8	0.1	6.76	197	25.0
	6.6000	0.0500	1015.6	-0.2	347.80	200	25.0
	6.6500	0.0500	1014.7	-0.9	21.83	203	25.0
	6.7000	0.0500	1013.0	-1.7	-734.03	206	25.0
	6.7500	0.0500	1005.5	-7.5	-1526.96	209	25.0
	6.8000	0.0500	993.7	-11.8	-2062.51	215	25.0
EQP1	6.832497	NaN	784.4	NaN	-2174.47	NaN	NaN
	6.8500	0.0500	671.7	-322.0	-2171.86	245	25.0
	6.9000	0.0500	600.7	-71.0	-1822.61	254	25.0
	6.9500	0.0500	582.7	-18.0	-1122.78	257	25.0
	7.0000	0.0500	571.5	-11.2	-325.24	260	25.0
	7.0500	0.0500	563.5	-8.0	197.82	263	25.0
	7.1000	0.0500	557.3	-6.2	NaN	266	25.0
	7.1500	0.0500	552.4	-4.9	NaN	269	25.0
	7.2000	0.0500	548.2	-4.2	NaN	272	25.0
	7.2500	0.0500	544.7	-3.5	NaN	275	25.0
	7.3000	0.0500	541.6	-3.1	NaN	278	25.0

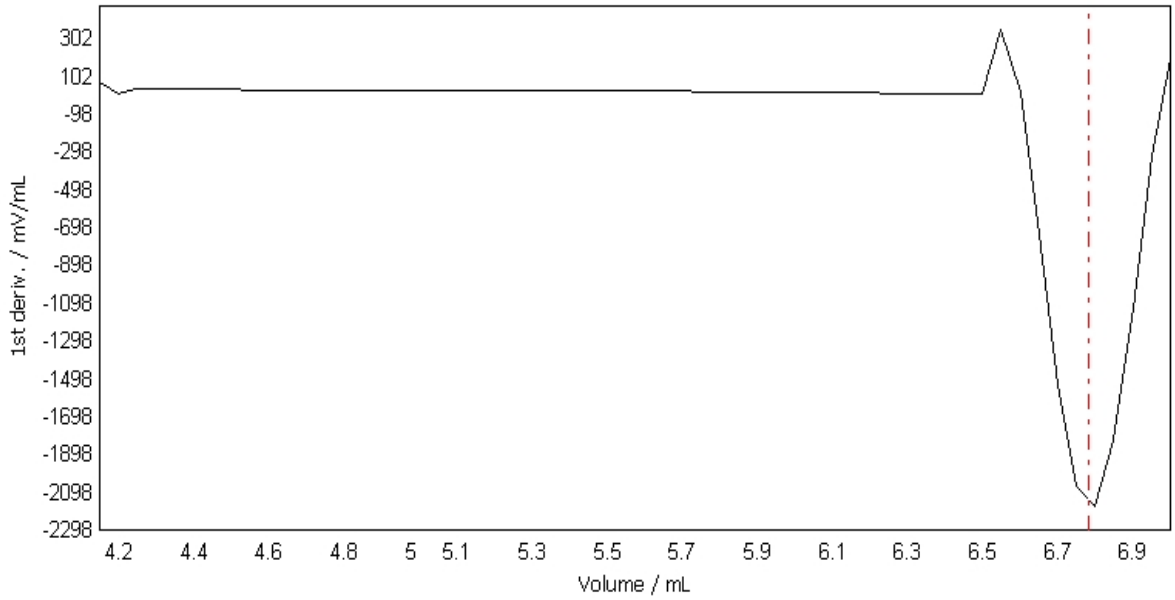
E - V curve **EQP titration [1]**
Sample 5/6



Method:	**FAS**	**FAS Titer with EQP**	**8/10/2012 1:14:43 PM**
Start time:	**8/10/2012 1:16:27 PM**		

dE/dV - V curve EQP titration [1]

Sample 5/6



Raw data

Sample

No.	6/6
Standard	Potassium dichromate
Type of standard	solid
Comment	
Titration stand	Rondo60/1A
Weight	m = 0.02669 g
Correction factor	f = 1.0
Purity	p = 100.00 %
Temperature	T = 25.0 oC
Sample start	8/10/2012 1:50:35 PM
Sample end	8/10/2012 2:10:22 PM

EQP titration [1]

Titrant	F(II)AS c = 0.1 mol/L TITER = 0.98341	
Sensor	DM140-SC	
Start potential		EST = 916.0 mV
Predispense		EPD = 952.8 mV
		VPD = 4.0000 mL
No. of EQPs and cand.		nEQ = 1
Consumption	EQP1	VEQ1 = 5.479886 mL
		Q1 = 0.538897 mmol
		EEQ1 = 764.1 mV
		EHNV1 = 925.5 mV
Excess		VEX = 0.470114 mL
		QEX = 0.046231 mmol
End		VEND = 5.9500 mL
		QEND = 0.585129 mmol
Termination at	EQPs	
Time	t = 3:30 min	

Calculation

Result R1 = 0.99334 -- Titer

Method: **FAS** **FAS Titer with EQP** **8/10/2012 1:14:43 PM**
Start time: **8/10/2012 1:16:27 PM**

Formula	R1=m/(VEQ*c*C)
Constant	M/(10*p*z)
	C = 0.049032
Molar mass	M[Potassium dichromate] = 294.19 g/mol
Equivalent number	z[Potassium dichromate] = 6
Duration	tUSE = 19:10 min

Measured values **EQP titration [1]**

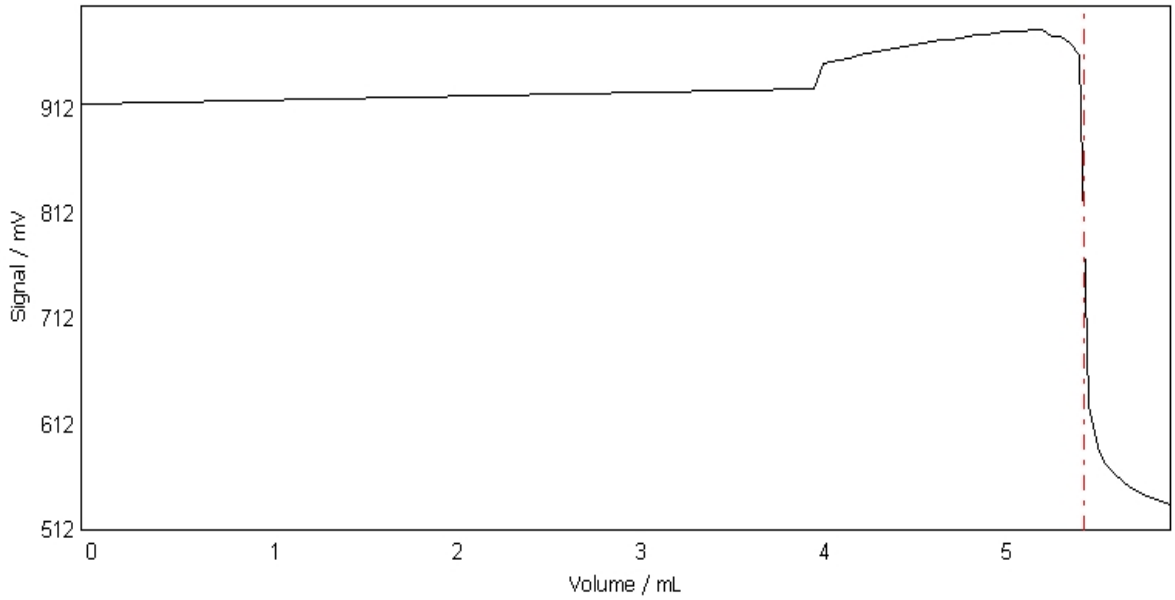
Titrant	F(II)AS c = 0.1 mol/L TITER = 0.98341
Sensor	DM140-SC
Sample	6/6

	Volume mL	Increment mL	Signal mV	Change mV	1st deriv. mV/mL	Time s	Temperature oC
	0.0000	NaN	916.0	NaN	NaN	0	25.0
	4.0000	4.0000	929.9	13.9	NaN	12	25.0
	4.0500	0.0500	954.7	24.8	NaN	46	25.0
	4.1000	0.0500	956.5	1.8	NaN	49	25.0
	4.1500	0.0500	958.3	1.8	NaN	52	25.0
	4.2000	0.0500	960.1	1.8	72.35	55	25.0
	4.2500	0.0500	961.9	1.8	8.31	58	25.0
	4.3000	0.0500	963.6	1.7	34.52	61	25.0
	4.3500	0.0500	965.3	1.7	33.60	64	25.0
	4.4000	0.0500	967.0	1.7	32.91	67	25.0
	4.4500	0.0500	968.6	1.6	32.09	70	25.0
	4.5000	0.0500	970.2	1.6	31.51	73	25.0
	4.5500	0.0500	971.7	1.5	30.72	76	25.0
	4.6000	0.0500	973.3	1.6	29.91	79	25.0
	4.6500	0.0500	974.7	1.4	28.91	82	25.0
	4.7000	0.0500	976.2	1.5	27.72	85	25.0
	4.7500	0.0500	977.5	1.3	26.51	88	25.0
	4.8000	0.0500	978.8	1.3	25.21	91	25.0
	4.8500	0.0500	980.0	1.2	24.03	94	25.0
	4.9000	0.0500	981.2	1.2	22.63	97	25.0
	4.9500	0.0500	982.3	1.1	21.15	100	25.0
	5.0000	0.0500	983.3	1.0	19.50	103	25.0
	5.0500	0.0500	984.2	0.9	23.63	106	25.0
	5.1000	0.0500	985.0	0.8	12.97	110	25.0
	5.1500	0.0500	985.6	0.6	5.78	112	25.0
	5.2000	0.0500	986.1	0.5	-2.20	116	25.0
	5.2500	0.0500	986.1	0.0	346.89	119	25.0
	5.3000	0.0500	980.4	-5.7	-24.81	123	25.0
	5.3500	0.0500	980.9	0.5	-761.33	126	25.0
	5.4000	0.0500	974.0	-6.9	-1499.66	131	25.0
	5.4500	0.0500	962.0	-12.0	-1975.09	139	25.0
EQP1	5.479886	NaN	764.1	NaN	-2047.85	NaN	NaN
	5.5000	0.0500	630.9	-331.1	-2043.06	165	25.0
	5.5500	0.0500	591.2	-39.7	-1687.59	170	25.0
	5.6000	0.0500	575.1	-16.1	-1001.38	173	25.0
	5.6500	0.0500	564.6	-10.5	-245.78	176	25.0
	5.7000	0.0500	557.0	-7.6	219.18	179	25.0
	5.7500	0.0500	551.2	-5.8	NaN	182	25.0
	5.8000	0.0500	546.4	-4.8	NaN	185	25.0
	5.8500	0.0500	542.4	-4.0	NaN	188	25.0
	5.9000	0.0500	538.9	-3.5	NaN	192	25.0
	5.9500	0.0500	535.9	-3.0	NaN	195	25.0

Method:	**FAS**	**FAS Titer with EQP**	**8/10/2012 1:14:43 PM**
Start time:	**8/10/2012 1:16:27 PM**		

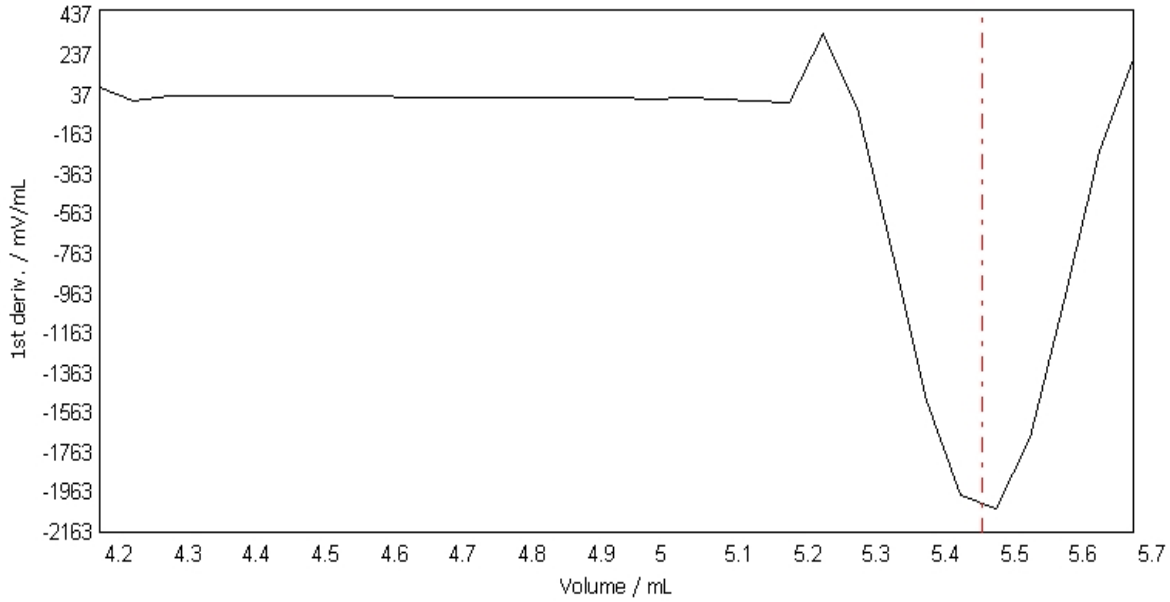
E - V curve EQP titration [1]

Sample 6/6



dE/dV - V curve EQP titration [1]

Sample 6/6



Raw data

Calculation

Result	R2 = 0.994 -- Mean Titer
Formula	R2=Mean[R1]
Constant	1
	C = 1
Molar mass	M[None] = 1 g/mol
Equivalent number	z[None] = 1

Method:	**FAS**	**FAS Titer with EQP**	**8/10/2012 1:14:43 PM**
Start time:	**8/10/2012 1:16:27 PM**		

Titer

Titrant	F(II)AS c = 0.1 mol/L
Titer	0.99352

(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: - (Administrator), 8/10/2012 1:23:50 PM