

Standardization of Kf One-component Reagent (Auto Method)

This method is suitable for standardization of Kf one-component reagent with deionized water. This analysis is performed under automated procedure. In this analysis procedure, the sequential multiple analysis is performed by once running of designed method. The titration is monitored by a double platinum sensor using voltammetric indication and the titration curve is evaluated at the inflection point to determine the endpoint (EP).

Sample	deionized water
Analyte(s)	Water, M=18.01
Chemicals	Methanol
Titrant	Karl Fischer reagent (KF), 5 mg/mL
Standard	-
Indication	Double Pt electrode
Instruments	ETA-KF360 Karl Fischer titrator
Accessories	Automatic rinsing unit ETA-801

Preparation

One-component KF titrant (5 mg H₂O/mL) is purchased commercially.

Procedures

- Select the appropriate procedure (ETA-853) in the main sheet of program for standardization of Kf one-component reagent.

- Run the method

- After drying the solvent message box is generated for add 10 µL of deionized water with syringe to the titration cell and enter the amount of sample in the textbox of generated message box then press OK.

Analysis Information

- The method parameters have been optimized for the sample of this application. It may be necessary to adapt the method to your specific sample.

- The measured one-component KF titrant concentration is calculated and displayed in the "Analysis result" part immediately after the completion of each titration. Also, in multiple type analysis (defined in "Titration control" parameters), the mean value of the one-component KF titrant concentration is automatically stored as part of the setup. Therefore, for analysis of Kf One-component Reagent, when KF titrant (5 mg/mL) is selected as the titrant, the measured KF titrant concentration, is written in the corresponding textbox in the "Titrant data" parameters.

Analysis Results

Determination results:

Date & Time: 2026/10/10 13:40:19

Electrode: Double Pt electrode

Solvent: Methanol

Analyte(s):

Water (H₂O)

Sample name: deionized water

Titration result(s):

1 Sample amount: 0.0195 gr
Signal of sample (mV): 429.002
Previous titrant conc.: 4.8350 mg/mL
Titrant volume(s):
EP: 4.37480 mL
Determined titrant conc.: 4.4844 mg/mL

Comments

- For rinsing the buret cylinders and tubes of device, the "Buret prepare" action must be performed for titration burets before starting the analysis.
- To achieve careful results, weigh the sample accurately, and in particular, to first clean the syringe with deionized water and then deionized water discard.
- To ensure a more efficient cleaning, the syringe is gently shaken to allow the deionized water to absorb the moisture on the inner wall of the syringe.
- To ensure a more efficient cleaning, the syringe is gently shaken to allow the deionized water to absorb the moisture on the inner wall of the syringe.
- Before starting the titration, the titrant in the injection tube should be emptied because its concentration may have decreased.
- If bubbles are visible in the tubing, dispense titrant solution until the bubbles have been expelled. Tap the tubing to dislodge bubbles.
- After three determinations, methanol has to be exchanged since it becomes turbid and the subsequent measurements clearly deviate from the average value of the first three samples.

Table of measured values

EP	Volume (mL)	Increment (mL)	Signal (mV)	Signal change (mV)	mg H ₂ O	Online drift (µL/min)	Time (sec)
	000.0000	000.0000	429.0000	429.0000	000.0000	000.0000	00.00
EP	000.0000	000.0000	429.0600	000.0600	000.0000	000.0000	00.86
	000.0233	000.0233	429.0800	000.0200	000.1127	735.7895	01.90
	000.0467	000.0234	429.0600	-000.0200	000.2258	987.3150	02.84
	000.0705	000.0238	428.8800	-000.1800	000.3409	1116.9791	03.79
	000.0941	000.0236	428.7500	-000.1300	000.4550	1192.9009	04.73
	000.1178	000.0237	428.5200	-000.2300	000.5696	1244.1472	05.68
	000.1415	000.0237	428.3300	-000.1900	000.6842	1280.7362	06.63
	000.1652	000.0237	428.0800	-000.2500	000.7987	1308.3421	07.58
	000.1889	000.0237	427.9100	-000.1700	000.9133	1329.6574	08.52
	000.2123	000.0234	427.7200	-000.1900	001.0265	1346.3693	09.46
	000.2359	000.0236	427.4900	-000.2300	001.1406	1483.1814	10.41
	000.2596	000.0237	427.3700	-000.1200	001.2552	1499.6827	11.35
	000.2834	000.0238	427.1700	-000.2000	001.3702	1500.1584	12.31
	000.3071	000.0237	426.9800	-000.1900	001.4848	1499.8415	13.25
	000.3306	000.0235	426.8000	-000.1800	001.5984	1500.1586	14.19
	000.3543	000.0237	426.5900	-000.2100	001.7130	1500.3172	15.14
	000.3778	000.0235	426.4200	-000.1700	001.8267	1499.8413	16.08
	000.4015	000.0237	426.2800	-000.1400	001.9412	1499.8413	17.03
	000.4252	000.0237	426.1100	-000.1700	002.0558	1499.6827	17.98
	000.4488	000.0236	425.8700	-000.2400	002.1700	1500.0000	18.92
	000.4724	000.0236	425.6300	-000.2400	002.2840	1500.1586	19.87
	000.4961	000.0237	425.6300	000.0000	002.3986	1499.8414	20.82
	000.5198	000.0237	424.7200	-000.9100	002.5132	1499.8414	21.76
	000.5436	000.0238	420.8700	-003.8500	002.6283	1499.8414	22.71
	000.5672	000.0236	421.2600	000.3900	002.7424	1499.6831	23.66
	000.5907	000.0235	420.9400	-000.3200	002.8560	1499.6828	24.60
	000.6144	000.0237	421.1300	000.1900	002.9706	1499.8415	25.55
	000.6381	000.0237	421.3000	000.1700	003.0852	1499.6831	26.50
	000.6617	000.0236	421.3800	000.0800	003.1993	1499.8414	27.44
	000.6855	000.0238	420.7100	-000.6700	003.3144	1500.1584	28.39
	000.7091	000.0236	420.9800	000.2700	003.4285	1499.6832	29.34
	000.7326	000.0235	420.7400	-000.2400	003.5421	1500.0000	30.28
	000.7564	000.0238	420.8000	000.0600	003.6572	1499.8415	31.23
	000.7801	000.0237	420.7000	-000.1000	003.7718	1499.8414	32.17
	000.8036	000.0235	420.3500	-000.3500	003.8854	1499.8414	33.12
	000.8273	000.0237	420.5200	000.1700	004.0000	1499.8415	34.06
	000.8510	000.0237	420.1700	-000.3500	004.1146	1500.1585	35.01
	000.8746	000.0236	420.2400	000.0700	004.2287	1500.1586	35.95
	000.8983	000.0237	420.0000	-000.2400	004.3433	1500.3171	36.90
	000.9220	000.0237	419.8900	-000.1100	004.4579	1500.0000	37.85
	000.9456	000.0236	419.7300	-000.1600	004.5720	1500.1586	38.79
	000.9693	000.0237	419.6700	-000.0600	004.6866	1500.1584	39.74
	000.9929	000.0236	418.2600	-001.4100	004.8007	1500.0000	40.69
	001.0166	000.0237	419.4100	001.1500	004.9153	1500.0000	41.63
	001.0402	000.0236	419.0900	-000.3200	005.0294	1499.8415	42.58
	001.0637	000.0235	418.4000	-000.6900	005.1430	1499.6828	43.52
	001.0876	000.0239	418.6000	000.2000	005.2585	1499.8415	44.48
	001.1111	000.0235	418.8400	000.2400	005.3722	1500.0000	45.41
	001.1346	000.0235	418.7000	-000.1400	005.4858	1499.3655	46.36
	001.1584	000.0238	418.5800	-000.1200	005.6009	1499.8414	47.31
	001.1821	000.0237	418.4500	-000.1300	005.7154	1499.5245	48.26
	001.2056	000.0235	418.4500	000.0000	005.8291	1500.0000	49.19
	001.2293	000.0237	418.1500	-000.3000	005.9437	1499.6828	50.15
	001.2531	000.0238	417.7100	-000.4400	006.0587	1500.0000	51.09
	001.2766	000.0235	417.1500	-000.5600	006.1724	1500.0000	52.04
	001.3003	000.0237	416.8400	-000.3100	006.2870	1500.1585	52.98
	001.3240	000.0237	416.9900	000.1500	006.4015	1499.8414	53.93
	001.3477	000.0237	416.7400	-000.2500	006.5161	1499.6831	54.88
	001.3713	000.0236	416.3000	-000.4400	006.6302	1500.4754	55.82
	001.3950	000.0237	416.4000	000.1000	006.7448	1499.6831	56.77
	001.4184	000.0234	416.0400	-000.3600	006.8580	1500.3175	57.71
	001.4423	000.0239	417.1100	001.0700	006.9735	1499.6832	58.66

EP	Volume (mL)	Increment (mL)	Signal (mV)	Signal change (mV)	mg H ₂ O	Online drift (µL/min)	Time (sec)
	001.4659	000.0236	416.9900	-000.1200	007.0876	1500.1585	59.61
	001.4894	000.0235	416.0800	-000.9100	007.2012	1499.6827	60.55
	001.5133	000.0239	415.4700	-000.6100	007.3168	1500.3169	61.50
	001.5369	000.0236	415.5100	000.0400	007.4309	1499.5247	62.45
	001.5605	000.0236	416.6200	001.1100	007.5450	1499.8414	63.39
	001.5843	000.0238	416.0600	-000.5600	007.6601	1500.3171	64.34
	001.6079	000.0236	415.2200	-000.8400	007.7742	1499.8415	65.29
	001.6313	000.0234	414.4100	-000.8100	007.8873	1499.6827	66.23
	001.6550	000.0237	414.4500	000.0400	008.0019	1500.0000	67.17
	001.6787	000.0237	415.0500	000.6000	008.1165	1500.1586	68.12
	001.7023	000.0236	416.4100	001.3600	008.2306	1500.1586	69.06
	001.7260	000.0237	413.5500	-002.8600	008.3452	1499.8415	70.01
	001.7497	000.0237	412.9200	-000.6300	008.4598	1499.5243	70.96
	001.7732	000.0235	413.8400	000.9200	008.5734	1500.1587	71.90
	001.7970	000.0238	415.2300	001.3900	008.6885	1500.0000	72.85
	001.8207	000.0237	414.2900	-000.9400	008.8031	1499.6828	73.80
	001.8443	000.0236	413.0500	-001.2400	008.9172	1499.8414	74.74
	001.8679	000.0236	412.6500	-000.4000	009.0313	1500.3171	75.69
	001.8915	000.0236	412.5400	-000.1100	009.1454	1499.8414	76.63
	001.9152	000.0237	413.9700	001.4300	009.2600	1499.5245	77.58
	001.9388	000.0236	415.1600	001.1900	009.3741	1499.3660	78.53
	001.9626	000.0238	410.2900	-004.8700	009.4892	1500.0000	79.48
	001.9862	000.0236	411.6000	001.3100	009.6033	1500.1586	80.42
	002.0099	000.0237	412.4200	000.8200	009.7179	1500.0000	81.37
	002.0334	000.0235	414.1900	001.7700	009.8315	1499.8414	82.31
	002.0571	000.0237	413.1900	-001.0000	009.9461	1499.6828	83.26
	002.0809	000.0238	412.2300	-000.9600	010.0612	1500.0000	84.21
	002.1043	000.0234	411.4400	-000.7900	010.1743	1499.6828	85.15
	002.1281	000.0238	410.3600	-001.0800	010.2894	1499.8415	86.10
	002.1518	000.0237	412.0000	001.6400	010.4040	1500.1585	87.05
	002.1754	000.0236	413.9000	001.9000	010.5181	1500.3171	87.99
	002.1991	000.0237	410.8400	-003.0600	010.6326	1500.1586	88.94
	002.2227	000.0236	409.3700	-001.4700	010.7468	1500.0000	89.88
	002.2463	000.0236	410.3400	000.9700	010.8609	1499.6828	90.83
	002.2699	000.0236	412.5200	002.1800	010.9750	1499.8414	91.77
	002.2936	000.0237	412.1600	-000.3600	011.0896	1500.0000	92.72
	002.3175	000.0239	409.5700	-002.5900	011.2051	1500.0000	93.67
	002.3410	000.0235	409.3800	-000.1900	011.3187	1499.5249	94.62
	002.3646	000.0236	408.8700	-000.5100	011.4328	1499.5245	95.56
	002.3883	000.0237	409.3600	000.4900	011.5474	1499.6829	96.51
	002.4119	000.0236	411.1600	001.8000	011.6615	1500.0000	97.45
	002.4357	000.0238	407.5500	-003.6100	011.7766	1499.6831	98.40
	002.4593	000.0236	407.2500	-000.3000	011.8907	1499.6831	99.35
	002.4830	000.0237	408.6500	001.4000	012.0053	1500.1584	100.29
	002.5066	000.0236	411.0300	002.3800	012.1194	1500.3169	101.24
	002.5302	000.0236	409.3300	-001.7000	012.2335	1499.6831	102.18
	002.5538	000.0236	407.1200	-002.2100	012.3476	1499.3655	103.13
	002.5775	000.0237	408.2400	001.1200	012.4622	1500.1586	104.08
	002.6011	000.0236	405.9700	-002.2700	012.5763	1500.3172	105.02
	002.6248	000.0237	408.6800	002.7100	012.6909	1500.1586	105.97
	002.6483	000.0235	411.1900	002.5100	012.8045	1499.6828	106.91
	002.6720	000.0237	405.3800	-005.8100	012.9191	1500.0000	107.85
	002.6956	000.0236	402.8900	-002.4900	013.0332	1500.1587	108.80
	002.7192	000.0236	405.9400	003.0500	013.1473	1499.6825	109.74
	002.7430	000.0238	408.3600	002.4200	013.2624	1499.5243	110.70
	002.7667	000.0237	407.6500	-000.7100	013.3770	1500.1586	111.64
	002.7903	000.0236	403.6300	-004.0200	013.4911	1500.1586	112.59
	002.8138	000.0235	402.0400	-001.5900	013.6047	1499.8413	113.53
	002.8375	000.0237	401.1300	-000.9100	013.7193	1500.0000	114.47
	002.8611	000.0236	403.4200	002.2900	013.8334	1500.0000	115.42
	002.8848	000.0237	408.0200	004.6000	013.9480	1500.1586	116.37
	002.9084	000.0236	402.9100	-005.1100	014.0621	1499.5243	117.31
	002.9320	000.0236	399.0100	-003.9000	014.1762	1499.6828	118.26

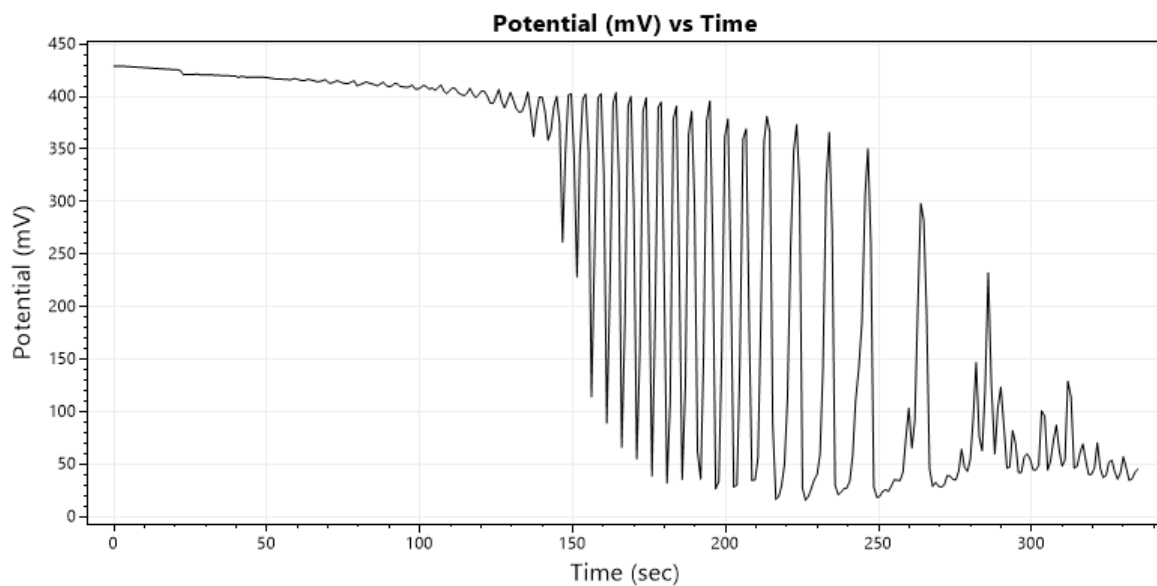
EP	Volume (mL)	Increment (mL)	Signal (mV)	Signal change (mV)	mg H ₂ O	Online drift (µL/min)	Time (sec)
	002.9554	000.0234	401.9200	002.9100	014.2894	1498.4140	119.20
	002.9792	000.0238	405.2800	003.3600	014.4044	1498.2556	120.16
	003.0029	000.0237	405.0800	-000.2000	014.5190	1498.0972	121.10
	003.0264	000.0235	400.6600	-004.4200	014.6326	1498.4134	122.04
	003.0501	000.0237	394.0200	-006.6400	014.7472	1498.5731	122.99
	003.0723	000.0222	393.6200	-000.4000	014.8546	1487.6452	123.94
	003.0940	000.0217	399.6200	006.0000	014.9595	1476.5427	124.88
	003.1176	000.0236	406.8800	007.2600	015.0736	1475.9087	125.83
	003.1412	000.0236	395.2700	-011.6100	015.1877	1476.5328	126.77
	003.1635	000.0223	389.3800	-005.8900	015.2955	1467.8220	127.72
	003.1843	000.0208	396.5900	007.2100	015.3961	1451.1834	128.67
	003.2070	000.0227	404.2500	007.6600	015.5058	1445.5844	129.61
	003.2306	000.0236	396.7100	-007.5400	015.6200	1445.1026	130.56
	003.2534	000.0228	388.5500	-008.1600	015.7302	1439.1378	131.51
	003.2739	000.0205	385.3000	-003.2500	015.8293	1419.9006	132.45
	003.2937	000.0198	385.9200	000.6200	015.9250	1405.8630	133.39
	003.3138	000.0201	393.4800	007.5600	016.0222	1393.3439	134.35
	003.3356	000.0218	404.4400	010.9600	016.1276	1382.5177	135.29
	003.3592	000.0236	385.3900	-019.0500	016.2417	1382.5177	136.23
	003.3792	000.0200	361.9400	-023.4500	016.3384	1366.7758	137.19
	003.3940	000.0148	384.6500	022.7100	016.4100	1330.1618	138.13
	003.4138	000.0198	399.6400	014.9900	016.5057	1310.5196	139.08
	003.4371	000.0233	399.4000	-000.2400	016.6184	1309.8636	140.02
	003.4606	000.0235	384.8500	-014.5500	016.7320	1314.3038	140.96
	003.4803	000.0197	358.4200	-026.4300	016.8272	1308.3994	141.91
	003.4946	000.0143	367.5000	009.0800	016.8964	1274.2072	142.85
	003.5108	000.0162	390.6000	023.1000	016.9747	1248.6795	143.81
	003.5317	000.0209	400.4300	009.8300	017.0758	1243.7632	144.75
	003.5554	000.0237	374.8700	-025.5600	017.1904	1243.8715	145.70
	003.5729	000.0175	261.4100	-113.4600	017.2750	1228.2816	146.65
	003.5774	000.0045	346.9300	085.5200	017.2967	1161.8625	147.60
	003.5890	000.0116	401.4000	054.4700	017.3528	1110.8528	148.54
	003.6110	000.0220	402.8600	001.4600	017.4592	1102.0279	149.48
	003.6347	000.0237	342.9200	-059.9400	017.5738	1103.2953	150.43
	003.6466	000.0119	228.2200	-114.7000	017.6313	1053.6431	151.38
	003.6495	000.0029	345.8900	117.6700	017.6453	981.2078	152.33
	003.6609	000.0114	397.8200	051.9300	017.7004	952.8142	153.27
	003.6840	000.0231	402.5700	004.7500	017.8121	965.6557	154.21
	003.7078	000.0238	347.7100	-054.8600	017.9272	965.9835	155.16
	003.7203	000.0125	114.1900	-233.5200	017.9876	935.1803	156.11
	003.7211	000.0008	272.0000	157.8100	017.9915	895.2341	157.23
	003.7265	000.0054	398.8900	126.8900	018.0176	849.1149	158.26
	003.7483	000.0218	402.9800	004.0900	018.1230	847.7925	159.20
	003.7719	000.0236	325.1700	-077.8100	018.2371	847.3495	160.15
	003.7815	000.0096	089.2400	-235.9300	018.2836	833.3162	161.09
	003.7815	000.0000	216.6100	127.3700	018.2836	808.1633	162.13
	003.7843	000.0028	393.6100	177.0000	018.2971	748.1055	163.16
	003.8049	000.0206	403.9000	010.2900	018.3967	733.2457	164.11
	003.8284	000.0235	326.8100	-077.0900	018.5103	731.9442	165.05
	003.8382	000.0098	066.0600	-260.7500	018.5577	714.9065	166.00
	003.8383	000.0001	186.3500	120.2900	018.5582	717.4778	167.03
	003.8402	000.0019	391.7700	205.4200	018.5674	695.7675	168.06
	003.8601	000.0199	400.4900	008.7200	018.6636	684.4200	169.00
	003.8839	000.0238	294.7100	-105.7800	018.7787	685.3646	169.95
	003.8904	000.0065	054.9900	-239.7200	018.8101	667.0069	170.89
	003.8905	000.0001	159.2700	104.2800	018.8106	667.8922	171.92
	003.8919	000.0014	386.2800	227.0100	018.8173	659.1791	172.96
	003.9136	000.0217	398.9000	012.6200	018.9223	660.0546	173.99
	003.9368	000.0232	249.4700	-149.4300	019.0344	658.5662	174.93
	003.9406	000.0038	038.8000	-210.6700	019.0528	622.3033	175.87
	003.9406	000.0000	191.1700	152.3700	019.0528	621.0665	176.91
	003.9427	000.0021	389.9300	198.7600	019.0630	622.9110	177.94
	003.9624	000.0197	394.9800	005.0500	019.1582	621.2551	178.88

EP	Volume (mL)	Increment (mL)	Signal (mV)	Signal change (mV)	mg H ₂ O	Online drift (µL/min)	Time (sec)
	003.9848	000.0224	231.9500	-163.0300	019.2665	612.6290	179.83
	003.9879	000.0031	032.0700	-199.8800	019.2815	591.3870	180.78
	003.9880	000.0001	109.7700	077.7000	019.2820	591.0285	181.82
	003.9887	000.0007	378.4800	268.7100	019.2854	587.4975	182.84
	004.0085	000.0198	391.0100	012.5300	019.3811	575.9660	183.87
	004.0298	000.0213	237.9900	-153.0200	019.4841	563.8642	184.82
	004.0331	000.0033	035.5900	-202.4000	019.5000	561.1162	185.77
	004.0331	000.0000	125.8900	090.3000	019.5000	561.1162	186.80
	004.0341	000.0010	363.8300	237.9400	019.5049	553.8834	187.84
	004.0506	000.0165	386.2500	022.4200	019.5846	530.2074	188.86
	004.0707	000.0201	296.1800	-090.0700	019.6818	516.5364	189.81
	004.0775	000.0068	062.2900	-233.8900	019.7147	538.8393	190.76
	004.0775	000.0000	035.9700	-026.3200	019.7147	538.2380	191.79
	004.0775	000.0000	150.4600	114.4900	019.7147	538.2906	192.74
	004.0787	000.0012	377.5300	227.0700	019.7205	425.6265	193.77
	004.0982	000.0195	396.0100	018.4800	019.8148	411.2636	194.80
	004.1192	000.0210	261.1600	-134.8500	019.9163	517.6353	195.75
	004.1236	000.0044	026.5300	-234.6300	019.9376	549.2616	196.69
	004.1236	000.0000	033.7300	007.2000	019.9376	543.1374	197.72
	004.1236	000.0000	157.1100	123.3800	019.9376	446.6198	198.67
	004.1249	000.0013	361.6500	204.5400	019.9439	328.7837	199.70
	004.1410	000.0161	378.8600	017.2100	020.0217	382.0315	200.73
	004.1593	000.0183	223.4800	-155.3800	020.1102	496.5099	201.68
	004.1621	000.0028	028.3500	-195.1300	020.1238	513.5573	202.62
	004.1621	000.0000	030.2700	001.9200	020.1238	506.0168	203.66
	004.1621	000.0000	146.0000	115.7300	020.1238	391.0250	204.61
	004.1633	000.0012	359.8200	213.8200	020.1296	267.3267	205.64
	004.1791	000.0158	369.3000	009.4800	020.2060	333.5336	206.67
	004.1954	000.0163	190.6400	-178.6600	020.2848	435.1076	207.62
	004.1973	000.0019	034.5600	-156.0800	020.2940	447.0731	208.56
	004.1973	000.0000	035.2800	000.7200	020.2940	438.8765	209.60
	004.1973	000.0000	056.4300	021.1500	020.2940	344.2372	210.55
	004.1973	000.0000	190.4600	134.0300	020.2940	232.3212	211.49
	004.1993	000.0020	357.2000	166.7400	020.3036	225.5913	212.52
	004.2125	000.0132	381.3200	024.1200	020.3674	308.5085	213.46
	004.2302	000.0177	366.4200	-014.9000	020.4530	416.7687	214.41
	004.2460	000.0158	089.6200	-276.8000	020.5294	510.7566	215.36
	004.2460	000.0000	016.4100	-073.2100	020.5294	413.2180	216.39
	004.2460	000.0000	019.1500	002.7400	020.5294	312.7318	217.33
	004.2460	000.0000	029.8300	010.6800	020.5294	300.5864	218.28
	004.2460	000.0000	050.6200	020.7900	020.5294	303.6160	219.23
	004.2460	000.0000	112.5400	061.9200	020.5294	303.4898	220.17
	004.2467	000.0007	257.3600	144.8200	020.5328	305.0952	221.21
	004.2513	000.0046	348.3900	091.0300	020.5550	321.1529	222.23
	004.2632	000.0119	373.4300	025.0400	020.6126	312.7377	223.19
	004.2802	000.0170	315.5400	-057.8900	020.6948	308.7373	224.13
	004.2888	000.0086	027.4300	-288.1100	020.7364	264.1432	225.08
	004.2888	000.0000	015.8400	-011.5900	020.7364	264.0888	226.11
	004.2888	000.0000	019.5200	003.6800	020.7364	264.1160	227.06
	004.2888	000.0000	027.2300	007.7100	020.7364	264.0346	228.01
	004.2888	000.0000	035.4800	008.2500	020.7364	263.9803	228.95
	004.2888	000.0000	040.6400	005.1600	020.7364	264.1975	229.89
	004.2888	000.0000	059.7500	019.1100	020.7364	262.2781	230.84
	004.2888	000.0000	141.4600	081.7100	020.7364	235.5034	231.79
	004.2899	000.0011	317.2400	175.7800	020.7417	166.3379	232.82
	004.2993	000.0094	366.0600	048.8200	020.7871	117.8891	233.85
	004.3140	000.0147	273.3900	-092.6700	020.8582	155.6516	234.79
	004.3191	000.0051	030.0900	-243.3000	020.8828	188.7654	235.74
	004.3191	000.0000	020.9600	-009.1300	020.8828	187.0563	236.77
	004.3191	000.0000	023.5600	002.6000	020.8828	187.1718	237.72
	004.3191	000.0000	026.7600	003.2000	020.8828	187.1911	238.67
	004.3191	000.0000	027.4600	000.7000	020.8828	186.9986	239.62
	004.3191	000.0000	034.1700	006.7100	020.8828	187.1718	240.55

EP	Volume (mL)	Increment (mL)	Signal (mV)	Signal change (mV)	mg H ₂ O	Online drift (µL/min)	Time (sec)
	004.3191	000.0000	058.7600	024.5900	020.8828	187.1911	241.50
	004.3191	000.0000	110.9800	052.2200	020.8828	181.8748	242.45
	004.3198	000.0007	140.7400	029.7600	020.8862	127.6993	243.48
	004.3210	000.0012	185.0000	044.2600	020.8920	043.2188	244.51
	004.3229	000.0019	306.6500	121.6500	020.9012	023.2463	245.55
	004.3301	000.0072	350.5200	043.8700	020.9360	067.8873	246.50
	004.3431	000.0130	261.2500	-089.2700	020.9989	148.1177	247.44
	004.3475	000.0044	028.4800	-232.7700	021.0202	175.2726	248.39
	004.3475	000.0000	018.4100	-010.0700	021.0202	173.8953	249.41
	004.3475	000.0000	019.5800	001.1700	021.0202	173.7180	250.36
	004.3475	000.0000	024.2000	004.6200	021.0202	173.7534	251.31
	004.3475	000.0000	025.7700	001.5700	021.0202	173.8953	252.25
	004.3475	000.0000	024.3000	-001.4700	021.0202	171.0228	253.20
	004.3475	000.0000	029.5000	005.2000	021.0202	164.9549	254.15
	004.3475	000.0000	035.2700	005.7700	021.0202	154.7332	255.09
	004.3475	000.0000	034.8400	-000.4300	021.0202	109.3652	256.04
	004.3475	000.0000	034.4600	-000.3800	021.0202	027.6730	256.98
	004.3475	000.0000	042.4400	007.9800	021.0202	000.0000	257.94
	004.3475	000.0000	074.6400	032.2000	021.0202	000.0000	258.88
	004.3475	000.0000	103.4700	028.8300	021.0202	000.0000	259.82
	004.3482	000.0007	065.3800	-038.0900	021.0236	004.4007	260.85
	004.3482	000.0000	091.8000	026.4200	021.0236	004.4016	261.79
	004.3482	000.0000	197.3000	105.5000	021.0236	004.4016	262.74
	004.3504	000.0022	298.4100	101.1100	021.0342	018.0779	263.78
	004.3569	000.0065	282.3000	-016.1100	021.0656	058.5305	264.72
	004.3626	000.0057	193.1300	-089.1700	021.0932	094.1396	265.67
	004.3645	000.0019	045.6800	-147.4500	021.1024	105.9190	266.61
	004.3645	000.0000	028.9700	-016.7100	021.1024	105.0572	267.65
	004.3645	000.0000	032.8300	003.8600	021.1024	104.9815	268.59
	004.3645	000.0000	029.2000	-003.6300	021.1024	104.9383	269.54
	004.3645	000.0000	028.2900	-000.9100	021.1024	101.5049	270.49
	004.3645	000.0000	030.4400	002.1500	021.1024	101.4418	271.43
	004.3645	000.0000	039.1300	008.6900	021.1024	101.4733	272.38
	004.3645	000.0000	039.0300	-000.1000	021.1024	088.5957	273.33
	004.3645	000.0000	035.6400	-003.3900	021.1024	047.7937	274.27
	004.3645	000.0000	035.1200	-000.5200	021.1024	011.9334	275.22
	004.3645	000.0000	043.6500	008.5300	021.1024	000.0000	276.17
	004.3645	000.0000	064.3900	020.7400	021.1024	000.0000	277.10
	004.3645	000.0000	047.2100	-017.1800	021.1024	000.0000	278.05
	004.3645	000.0000	043.2700	-003.9400	021.1024	000.0000	279.00
	004.3645	000.0000	054.6600	011.3900	021.1024	000.0000	279.95
	004.3645	000.0000	093.3700	038.7100	021.1024	000.0000	280.89
	004.3645	000.0000	147.1300	053.7600	021.1024	000.0000	281.83
	004.3656	000.0011	076.5500	-070.5800	021.1077	006.9146	282.87
	004.3656	000.0000	062.7200	-013.8300	021.1077	006.9110	283.82
	004.3656	000.0000	120.6500	057.9300	021.1077	006.9190	284.76
	004.3664	000.0008	232.3800	111.7300	021.1115	011.8392	285.80
	004.3698	000.0034	126.5300	-105.8500	021.1280	032.6992	286.83
	004.3708	000.0010	059.8400	-066.6900	021.1328	038.2166	287.94
	004.3708	000.0000	102.5400	042.7000	021.1328	038.2204	288.89
	004.3715	000.0007	123.4600	020.9200	021.1362	042.1053	289.92
	004.3724	000.0009	085.0600	-038.4000	021.1406	047.1032	290.95
	004.3724	000.0000	046.2800	-038.7800	021.1406	047.0752	291.90
	004.3724	000.0000	047.4800	001.2000	021.1406	040.8695	292.85
	004.3724	000.0000	082.2900	034.8100	021.1406	040.8900	293.79
	004.3724	000.0000	069.6500	-012.6400	021.1406	040.8736	294.74
	004.3724	000.0000	042.2000	-027.4500	021.1406	036.3930	295.69
	004.3724	000.0000	042.2600	000.0600	021.1406	015.9167	296.63
	004.3724	000.0000	057.0300	014.7700	021.1406	009.9637	297.58
	004.3724	000.0000	060.0800	003.0500	021.1406	009.9720	298.52
	004.3724	000.0000	055.3700	-004.7100	021.1406	005.6527	299.47
	004.3724	000.0000	044.9100	-010.4600	021.1406	000.0000	300.41
	004.3724	000.0000	044.6000	-000.3100	021.1406	000.0000	301.37

Table of measured values

EP	Volume (mL)	Increment (mL)	Signal (mV)	Signal change (mV)	mg H ₂ O	Online drift (µL/min)	Time (sec)
	004.3724	000.0000	048.9900	004.3900	021.1406	000.0000	302.31
	004.3724	000.0000	101.0100	052.0200	021.1406	000.0000	303.25
	004.3730	000.0006	095.6500	-005.3600	021.1435	003.7732	304.28
	004.3730	000.0000	044.4600	-051.1900	021.1435	003.7732	305.23
	004.3730	000.0000	052.8400	008.3800	021.1435	003.7720	306.17
	004.3730	000.0000	072.4200	019.5800	021.1435	003.7716	307.12
	004.3730	000.0000	087.3700	014.9500	021.1435	003.7708	308.07
	004.3730	000.0000	063.3700	-024.0000	021.1435	003.7732	309.01
	004.3730	000.0000	048.2600	-015.1100	021.1435	003.7720	309.96
	004.3730	000.0000	053.8700	005.6100	021.1435	003.7752	310.90
	004.3730	000.0000	129.1400	075.2700	021.1435	003.7756	311.85
	004.3739	000.0009	113.7700	-015.3700	021.1478	009.3419	312.88
	004.3748	000.0009	046.4400	-067.3300	021.1522	011.2138	313.91
	004.3748	000.0000	048.1100	001.6700	021.1522	011.2138	314.86
	004.3748	000.0000	060.8100	012.7000	021.1522	011.2115	315.81
	004.3748	000.0000	069.4700	008.6600	021.1522	011.2126	316.75
	004.3748	000.0000	053.4500	-016.0200	021.1522	011.2126	317.70
	004.3748	000.0000	040.3300	-013.1200	021.1522	011.2208	318.64
	004.3748	000.0000	040.5400	000.2100	021.1522	011.2091	319.59
	004.3748	000.0000	046.4000	005.8600	021.1522	011.2161	320.53
	004.3748	000.0000	070.4400	024.0400	021.1522	011.2045	321.48
	004.3748	000.0000	046.3700	-024.0700	021.1522	005.6556	322.43
	004.3748	000.0000	037.3800	-008.9900	021.1522	000.0000	323.37
	004.3748	000.0000	039.3600	001.9800	021.1522	000.0000	324.32
	004.3748	000.0000	051.9300	012.5700	021.1522	000.0000	325.26
	004.3748	000.0000	053.9900	002.0600	021.1522	000.0000	326.21
	004.3748	000.0000	043.0200	-010.9700	021.1522	000.0000	327.15
	004.3748	000.0000	035.7300	-007.2900	021.1522	000.0000	328.11
	004.3748	000.0000	041.9700	006.2400	021.1522	000.0000	329.05
	004.3748	000.0000	057.3000	015.3300	021.1522	000.0000	330.00
	004.3748	000.0000	046.4400	-010.8600	021.1522	000.0000	330.94
	004.3748	000.0000	034.5900	-011.8500	021.1522	000.0000	331.89
	004.3748	000.0000	036.3100	001.7200	021.1522	000.0000	332.83
	004.3748	000.0000	042.4500	006.1400	021.1522	000.0000	333.78
	004.3748	000.0000	045.4500	003.0000	021.1522	000.0000	334.73



Method parameters

Title Standardization of Kf One-component Reagent (Auto ...
Date 23/10/2026
Time 08:20

Titration control

Measurement type Karl fischer
Applied current [μ A] 20
Determination type Content determination
Titration mode End Point (EP)
Analysis execution type Single analysis
Stirrer direction Counter Clock Wise
Stirring speed [rpm] 500

Drift control

Drift mode Last standby drift
Drift [μ L/min] 1

Automatic sampling

Automatic sampling enabling Disabled

Automatic rinse

Automatic rinse enabling Disabled

Bottles parameters

Solvent maximum bottle volume 2200
Solvent current volume 1000
Waste maximum bottle volume 2200
Waste current volume 1000
Correction factor 0.00175

Sample data

Sample name deionized water
Sample amount unit gr
Calculation Method Regular
Sample amount 0.0195 gr
Blank volume 0.0000 mL
Analyte #1: Water, M=18.01
Molecular weight [gr/mol] 18.01
Stoichiometric ratio ($Z=\text{mol(KF)}/\text{mol(H}_2\text{O)}$) 1
Equivalence point No 1
Solvent name Methanol
Solvent amount [mL] 60
Automatic injection by pump Disabled
Stirring time after sampling [sec] 20

Titrant information

Titrant name Karl Fischer reagent (KF)
Using titrisol enabling Disabled
Titrant concentration(mg/mL) 4.8350

Electrode information

Sensor Double Pt electrode
Measurement unit mV

Titrant dispense

Enabled No

Titrant pre-dispense

Enabled No

Titrant addition

Addition mode Continuous
Speed (max) 1.5
Speed (min) 0.04
 ΔV (min) 0.01

Measurement

Analysis conditions Continuous measurement
Measurement interval 4

Recognition

End point (EP) recognition type Based on delay time
End point (EP) type Absolute
End point (EP) value [mV] 100
Tendency Negative
Control band [mV] 300

Termination

Maximum time [sec] 600
Maximum termination volume 40
End point delay[sec] 20

Presentation

Concentration unit %
Curves:
Potential vs Volume Yes
 $\Delta E/\Delta V$ vs Volume No
 $\log(\Delta E/\Delta V)$ vs Volume No
 $\Delta^2 E/\Delta V^2$ vs Volume No

Potential vs Time Yes
Volume vs Time Yes
 $\Delta E/\Delta V$ vs Time No
Online Drift (μ L/min) vs Volume No
Online Drift (μ L/min) vs Time Yes
%H₂O vs Time Yes

Report

Analysis result section Yes
Statistical result section Yes
Method parameters section Yes
Table of data section Yes
Comments section Yes
Curve section Yes
Volume vs Time No
Potential vs Time Yes
Potential vs Volume No
Online Drift (μ L/min) vs Time No
%H₂O vs Time No
 $\log(\Delta E/\Delta V)$ vs Volume No
 $\Delta E/\Delta V$ vs Volume No
 $\Delta^2 E/\Delta V^2$ vs Volume No
 $\Delta E/\Delta V$ vs Time No
Potential & $\Delta E/\Delta V$ vs Volume No
Online Drift (μ L/min) vs Volume No