

Assay name: pH-metric medium logP Analyst: Dorothy Levorse

Assay ID: 17K-28007 Instrument ID: T311053

Filename: C:\Sirius_T3\Mehtap\20171128_exp20_logP_training\17K-28007_phenol_pH-metric medium logP_pHpKa.t3r

pH-metric Result

logP (neutral XH) 1.49 logP (X -) -4.46 RMSD 0.550

17K-28007 Points 1 to 33

phenol concentration factor 1.106
Carbonate 0.4154 mM
Acidity error 0.03681 mM

17K-28007 Points 34 to 70

phenol concentration factor 1.032 Carbonate 0.2056 mM Acidity error 0.20146 mM

17K-28007 Points 71 to 104

phenol concentration factor 1.023 Carbonate 0.3751 mM Acidity error 0.08943 mM

Warnings and errors

Errors None

рΗ

Warnings One or more logP values out of range

Sample logD and percent species

phenol phenol

| | logD | phenolH | phenol | phenolH* | phenol* | |
|--------|-------|---------|---------|----------|---------|------------|
| 1.000 | 1.49 | 3.10 % | 0.00 % | 96.90 % | 0.00 % | |
| 1.200 | 1.49 | 3.10 % | 0.00 % | 96.90 % | 0.00 % | Stomach pH |
| 2.000 | 1.49 | 3.10 % | 0.00 % | 96.90 % | 0.00 % | |
| 3.000 | 1.49 | 3.10 % | 0.00 % | 96.90 % | 0.00 % | |
| 4.000 | 1.49 | 3.10 % | 0.00 % | 96.90 % | 0.00 % | |
| 5.000 | 1.49 | 3.10 % | 0.00 % | 96.90 % | 0.00 % | |
| 6.000 | 1.49 | 3.10 % | 0.00 % | 96.90 % | 0.00 % | |
| 6.500 | 1.49 | 3.10 % | 0.00 % | 96.89 % | 0.00 % | |
| 7.000 | 1.49 | 3.10 % | 0.01 % | 96.89 % | 0.00 % | |
| 7.400 | 1.49 | 3.10 % | 0.01 % | 96.88 % | 0.00 % | Blood pH |
| 8.000 | 1.49 | 3.10 % | 0.05 % | 96.85 % | 0.00 % | |
| 9.000 | 1.43 | 3.09 % | 0.50 % | 96.41 % | 0.00 % | |
| 10.000 | 1.08 | 2.95 % | 4.79 % | 92.25 % | 0.00 % | |
| 11.000 | 0.26 | 2.06 % | 33.48 % | 64.45 % | 0.00 % | |
| 12.000 | -0.72 | 0.51 % | 83.42 % | 16.06 % | 0.00 % | |

phenol

phenol Comment



Sample name: phenol Assay name:

pH-metric medium logP

Assay ID:

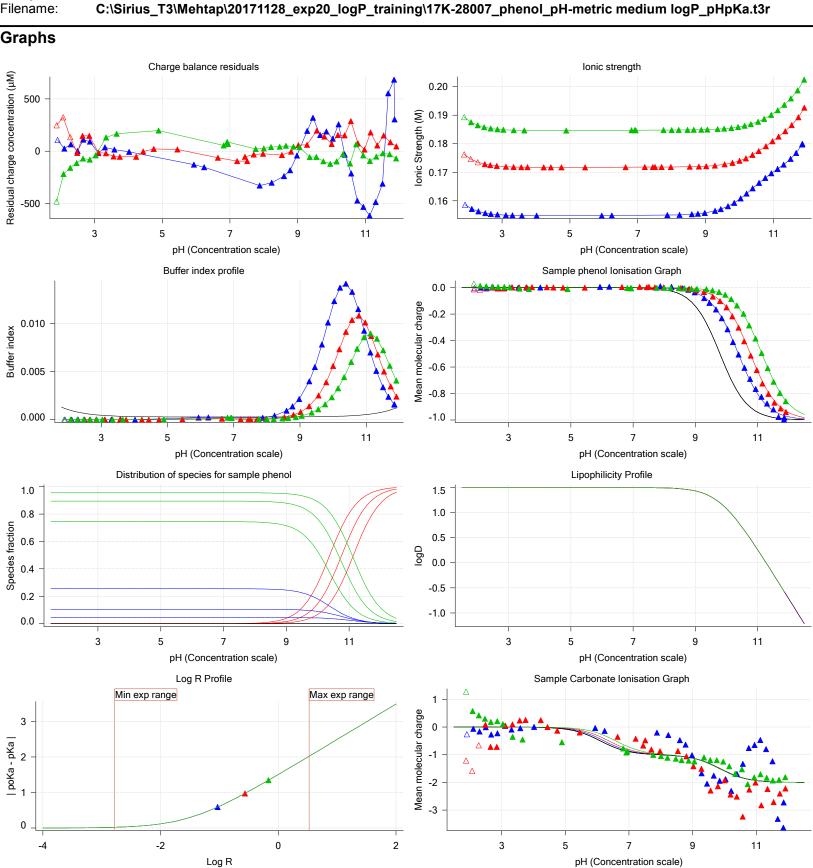
17K-28007

Experiment start time: 11/28/2017 12:07:50 PM Analyst:

Instrument ID:

Dorothy Levorse

T311053



Analyst:



Assay ID: Filename:

Sample name: phenol

pH-metric medium logP

Assay name:

17K-28007

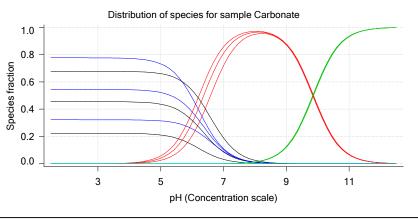
Experiment start time: 11/28/2017 12:07:50 PM

Dorothy Levorse

Instrument ID: T311053

C:\Sirius_T3\Mehtap\20171128_exp20_logP_training\17K-28007_phenol_pH-metric medium logP_pHpKa.t3r

Graphs (continued)





Assay name: pH-metric medium logP Analyst: Dorothy Levorse

Assay ID: 17K-28007 Instrument ID: T311053

Filename: C:\Sirius_T3\Mehtap\20171128_exp20_logP_training\17K-28007_phenol_pH-metric medium logP_pHpKa.t3r

pH-metric medium logP Titration 1 of 3 17K-28007 Points 1 to 33

Overall results

RMSD 0.372
Average ionic strength 0.161 M
Average temperature 24.9°C
Partition ratio 0.0933 : 1

Analyte concentration range 19232.3 µM to 21058.4 µM

Total points considered 32 of 33

Warnings and errors

Errors None

Warnings One or more logP values out of range

Four-Plus parameters

 Alpha
 0.076
 11/28/2017 12:07:50 PM
 C:\Sirius_T3\17K-28005_Blank standardisation.t3r

 S
 1.0056
 11/28/2017 12:07:50 PM
 C:\Sirius_T3\17K-28005_Blank standardisation.t3r

 jH
 1.0
 11/28/2017 12:07:50 PM
 C:\Sirius_T3\17K-28005_Blank standardisation.t3r

 jOH
 -0.9
 11/28/2017 12:07:50 PM
 C:\Sirius_T3\17K-28005_Blank standardisation.t3r

Titrants

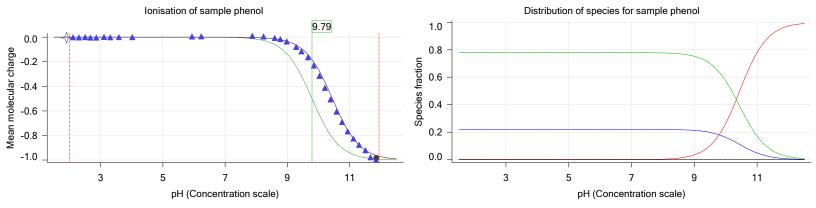
0.50 M HCI 0.994563 11/28/2017 12:07:50 PM C:\Sirius T3\17K-28006 Blank standardisation.t3r

0.50 M KOH 1.000610 11/28/2017 12:07:50 PM C:\Sirius_T3\KOH17K27.t3r

Sample

phenol concentration factor 1.106
Acid pKa 1 9.79
logP (neutral XH) 1.58
logP (X -) -9.00

Sample graphs





Assay ID:

Filename:

Sample name: phenol

pH-metric medium logP

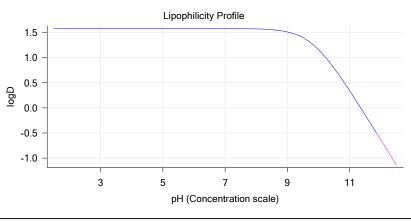
17K-28007

Analyst: **Dorothy Levorse** Instrument ID: T311053

Experiment start time: 11/28/2017 12:07:50 PM

C:\Sirius_T3\Mehtap\20171128_exp20_logP_training\17K-28007_phenol_pH-metric medium logP_pHpKa.t3r

Sample graphs (continued)



Sample logD and percent species

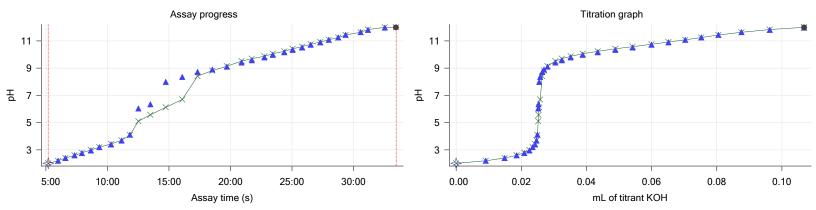
| рН | phenol | phenol | phenol | phenol | phenol | Comment |
|--------|--------|---------|---------|----------|---------|------------|
| | logD | phenolH | phenol | phenolH* | phenol* | |
| 1.000 | 1.58 | 22.04 % | 0.00 % | 77.96 % | 0.00 % | |
| 1.200 | 1.58 | 22.04 % | 0.00 % | 77.96 % | 0.00 % | Stomach pH |
| 2.000 | 1.58 | 22.04 % | 0.00 % | 77.96 % | 0.00 % | |
| 3.000 | 1.58 | 22.04 % | 0.00 % | 77.96 % | 0.00 % | |
| 4.000 | 1.58 | 22.04 % | 0.00 % | 77.96 % | 0.00 % | |
| 5.000 | 1.58 | 22.04 % | 0.00 % | 77.96 % | 0.00 % | |
| 6.000 | 1.58 | 22.04 % | 0.00 % | 77.96 % | 0.00 % | |
| 6.500 | 1.58 | 22.04 % | 0.01 % | 77.95 % | 0.00 % | |
| 7.000 | 1.58 | 22.03 % | 0.04 % | 77.93 % | 0.00 % | |
| 7.400 | 1.58 | 22.02 % | 0.09 % | 77.89 % | 0.00 % | Blood pH |
| 8.000 | 1.57 | 21.96 % | 0.36 % | 77.68 % | 0.00 % | |
| 9.000 | 1.51 | 21.28 % | 3.45 % | 75.27 % | 0.00 % | |
| 10.000 | 1.16 | 16.24 % | 26.33 % | 57.43 % | 0.00 % | |
| 11.000 | 0.34 | 4.82 % | 78.14 % | 17.04 % | 0.00 % | |
| 12.000 | -0.63 | 0.60 % | 97.28 % | 2.12 % | 0.00 % | |
| | | | | | | |

Carbonate and acidity



Carbonate 0.415 mM Acidity error 0.037 mM

Other graphs





Assay ID:

Filename:

Sample name: phenol Assay name:

pH-metric medium logP

17K-28007

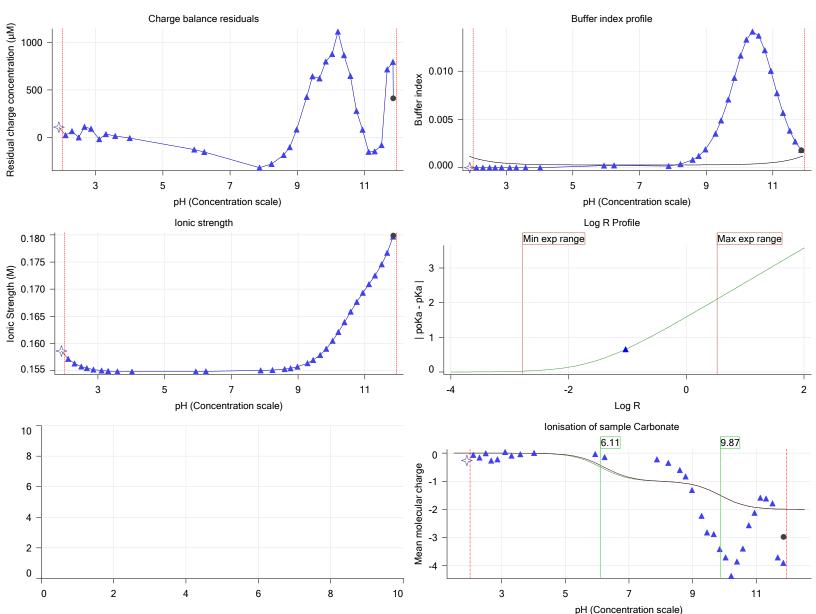
C:\Sirius_T3\Mehtap\20171128_exp20_logP_training\17K-28007_phenol_pH-metric medium logP_pHpKa.t3r

Experiment start time: 11/28/2017 12:07:50 PM

Analyst: **Dorothy Levorse**

Instrument ID: T311053

Other graphs (continued)





Sample name: phenol Experiment start time: 11/28/2017 12:07:50 PM

pH-metric medium logP Analyst: Dorothy Levorse

Assay ID: 17K-28007 Instrument ID: T311053

Filename: C:\Sirius_T3\Mehtap\20171128_exp20_logP_training\17K-28007_phenol_pH-metric medium logP_pHpKa.t3r

pH-metric medium logP Titration 2 of 3 17K-28007 Points 34 to 70

Overall results

RMSD 0.453
Average ionic strength 0.175 M
Average temperature 25.0°C
Partition ratio 0.2708 : 1

Analyte concentration range 13821.0 µM to 14844.7 µM

Total points considered 34 of 37

Warnings and errors

Errors None

Warnings One or more logP values out of range

Four-Plus parameters

 Alpha
 0.076
 11/28/2017 12:07:50 PM
 C:\Sirius_T3\17K-28005_Blank standardisation.t3r

 S
 1.0056
 11/28/2017 12:07:50 PM
 C:\Sirius_T3\17K-28005_Blank standardisation.t3r

 jH
 1.0
 11/28/2017 12:07:50 PM
 C:\Sirius_T3\17K-28005_Blank standardisation.t3r

 jOH
 -0.9
 11/28/2017 12:07:50 PM
 C:\Sirius_T3\17K-28005_Blank standardisation.t3r

Titrants

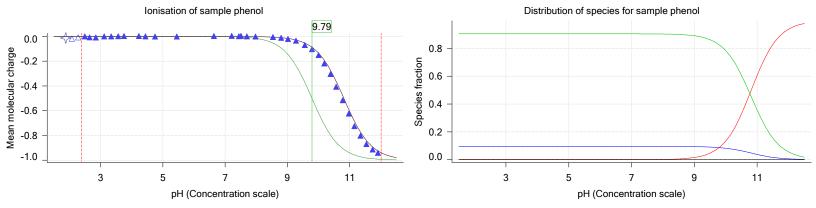
0.50 M HCI 0.994563 11/28/2017 12:07:50 PM C:\Sirius_T3\17K-28006_Blank standardisation.t3r

0.50 M KOH 1.000610 11/28/2017 12:07:50 PM C:\Sirius_T3\KOH17K27.t3r

Sample

phenol concentration factor 1.032
Acid pKa 1 9.79
logP (neutral XH) 1.55
logP (X -) -9.00

Sample graphs





Assay ID:

Filename:

Sample name: phenol

pH-metric medium logP

17K-28007

Analyst: Instrument ID:

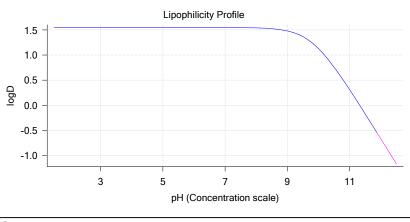
Experiment start time: 11/28/2017 12:07:50 PM

Dorothy Levorse

nt ID: **T311053**

C:\Sirius_T3\Mehtap\20171128_exp20_logP_training\17K-28007_phenol_pH-metric medium logP_pHpKa.t3r

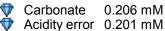
Sample graphs (continued)



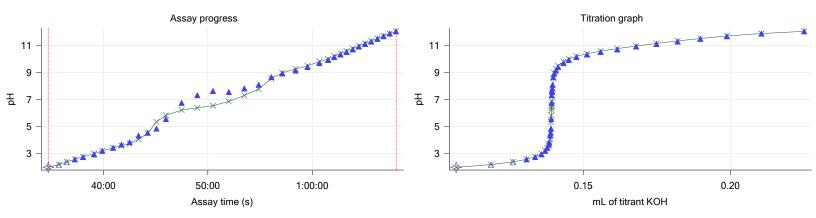
Sample logD and percent species

| рН | phenol | phenol | phenol | phenol | phenol | Comment |
|--------|--------|---------|---------|----------|---------|------------|
| | logD | phenolH | phenol | phenolH* | phenol* | |
| 1.000 | 1.55 | 9.47 % | 0.00 % | 90.53 % | 0.00 % | |
| 1.200 | 1.55 | 9.47 % | 0.00 % | 90.53 % | 0.00 % | Stomach pH |
| 2.000 | 1.55 | 9.47 % | 0.00 % | 90.53 % | 0.00 % | |
| 3.000 | 1.55 | 9.47 % | 0.00 % | 90.53 % | 0.00 % | |
| 4.000 | 1.55 | 9.47 % | 0.00 % | 90.53 % | 0.00 % | |
| 5.000 | 1.55 | 9.47 % | 0.00 % | 90.53 % | 0.00 % | |
| 6.000 | 1.55 | 9.47 % | 0.00 % | 90.53 % | 0.00 % | |
| 6.500 | 1.55 | 9.47 % | 0.00 % | 90.52 % | 0.00 % | |
| 7.000 | 1.55 | 9.47 % | 0.02 % | 90.51 % | 0.00 % | |
| 7.400 | 1.55 | 9.47 % | 0.04 % | 90.49 % | 0.00 % | Blood pH |
| 8.000 | 1.54 | 9.46 % | 0.15 % | 90.39 % | 0.00 % | |
| 9.000 | 1.48 | 9.33 % | 1.51 % | 89.16 % | 0.00 % | |
| 10.000 | 1.13 | 8.21 % | 13.32 % | 78.47 % | 0.00 % | |
| 11.000 | 0.31 | 3.73 % | 60.57 % | 35.70 % | 0.00 % | |
| 12.000 | -0.67 | 0.58 % | 93.89 % | 5.53 % | 0.00 % | |
| | | | | | | |

Carbonate and acidity



Other graphs





Filename:

Sample name: phenol Assay name:

pH-metric medium logP

Assay ID:

17K-28007

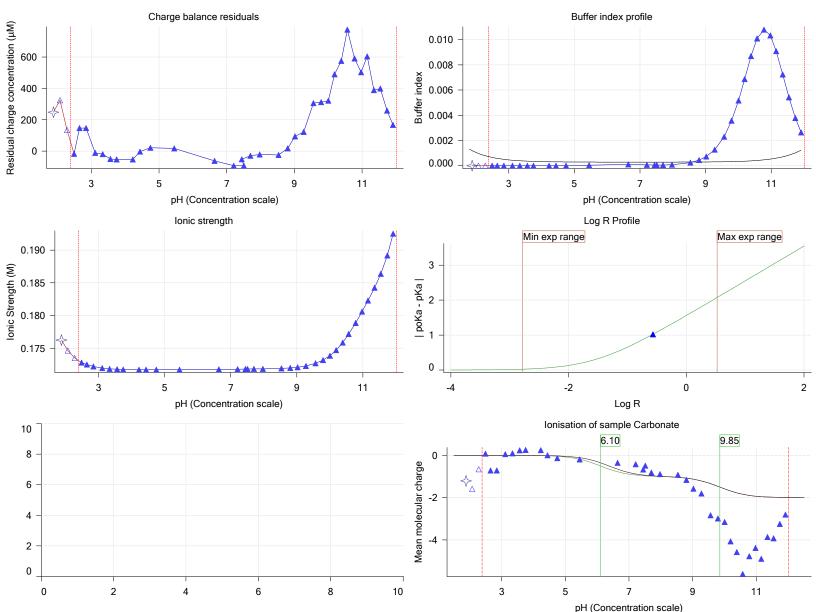
C:\Sirius_T3\Mehtap\20171128_exp20_logP_training\17K-28007_phenol_pH-metric medium logP_pHpKa.t3r

Experiment start time: 11/28/2017 12:07:50 PM Analyst:

Dorothy Levorse

Instrument ID: T311053

Other graphs (continued)





Assay name: pH-metric medium logP Analyst: Dorothy Levorse

Assay ID: 17K-28007 Instrument ID: T311053

Filename: C:\Sirius_T3\Mehtap\20171128_exp20_logP_training\17K-28007_phenol_pH-metric medium logP_pHpKa.t3r

pH-metric medium logP Titration 3 of 3 17K-28007 Points 71 to 104

Overall results

RMSD 0.773
Average ionic strength 0.187 M
Average temperature 25.0°C
Partition ratio 0.6804 : 1

Analyte concentration range 8865.9 µM to 9321.3 µM

Total points considered 33 of 34

Warnings and errors

Errors None

Warnings One or more logP values out of range

Four-Plus parameters

Titrants

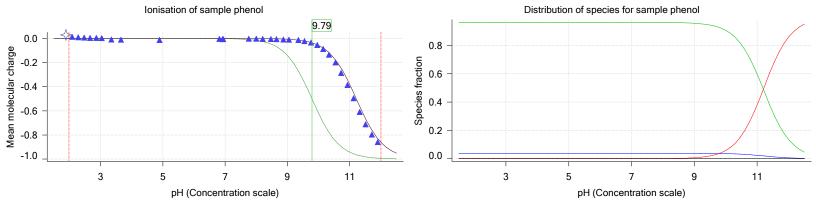
0.50 M HCI 0.994563 11/28/2017 12:07:50 PM C:\Sirius_T3\17K-28006_Blank standardisation.t3r

0.50 M KOH 1.000610 11/28/2017 12:07:50 PM C:\Sirius_T3\KOH17K27.t3r

Sample

phenol concentration factor 1.023
Acid pKa 1 9.79
logP (neutral XH) 1.58
logP (X -) -9.00

Sample graphs





Assay ID:

Filename:

Sample name: phenol

pH-metric medium logP

17K-28007

Instrument ID:

C:\Sirius_T3\Mehtap\20171128_exp20_logP_training\17K-28007_phenol_pH-metric medium logP_pHpKa.t3r

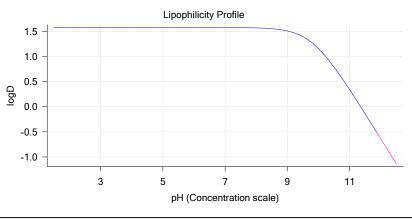
Analyst:

Experiment start time: 11/28/2017 12:07:50 PM

T311053

Dorothy Levorse

Sample graphs (continued)



Sample logD and percent species

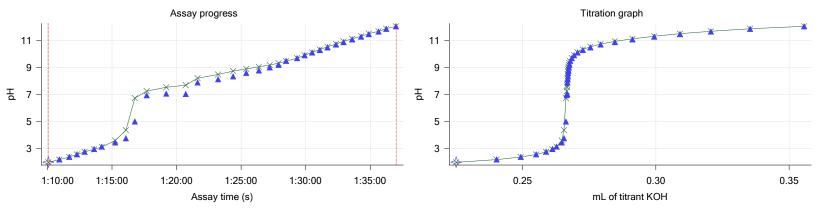
| рН | phenol | phenol | phenol | phenol | phenol | Comment |
|--------|--------|---------|---------|----------|---------|------------|
| | logD | phenolH | phenol | phenolH* | phenol* | |
| 1.000 | 1.58 | 3.76 % | 0.00 % | 96.24 % | 0.00 % | |
| 1.200 | 1.58 | 3.76 % | 0.00 % | 96.24 % | 0.00 % | Stomach pH |
| 2.000 | 1.58 | 3.76 % | 0.00 % | 96.24 % | 0.00 % | |
| 3.000 | 1.58 | 3.76 % | 0.00 % | 96.24 % | 0.00 % | |
| 4.000 | 1.58 | 3.76 % | 0.00 % | 96.24 % | 0.00 % | |
| 5.000 | 1.58 | 3.76 % | 0.00 % | 96.24 % | 0.00 % | |
| 6.000 | 1.58 | 3.76 % | 0.00 % | 96.24 % | 0.00 % | |
| 6.500 | 1.58 | 3.76 % | 0.00 % | 96.24 % | 0.00 % | |
| 7.000 | 1.57 | 3.76 % | 0.01 % | 96.23 % | 0.00 % | |
| 7.400 | 1.57 | 3.76 % | 0.02 % | 96.22 % | 0.00 % | Blood pH |
| 8.000 | 1.57 | 3.76 % | 0.06 % | 96.18 % | 0.00 % | |
| 9.000 | 1.51 | 3.74 % | 0.61 % | 95.66 % | 0.00 % | |
| 10.000 | 1.16 | 3.54 % | 5.75 % | 90.71 % | 0.00 % | |
| 11.000 | 0.34 | 2.34 % | 37.88 % | 59.78 % | 0.00 % | |
| 12.000 | -0.64 | 0.53 % | 85.91 % | 13.56 % | 0.00 % | |
| | | | | | | |

Carbonate and acidity



Carbonate 0.375 mM Acidity error 0.089 mM

Other graphs





Assay ID:

Filename:

Sample name: phenol Assay name:

pH-metric medium logP

17K-28007

Experiment start time: 11/28/2017 12:07:50 PM

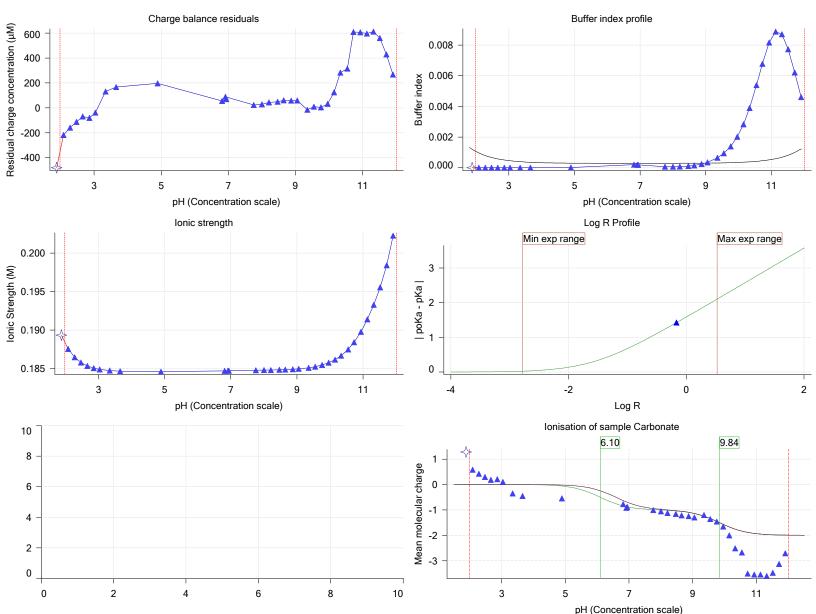
Analyst: **Dorothy Levorse**

Instrument ID:

T311053

C:\Sirius_T3\Mehtap\20171128_exp20_logP_training\17K-28007_phenol_pH-metric medium logP_pHpKa.t3r

Other graphs (continued)





Assay name: pH-metric medium logP Analyst: Dorothy Levorse

Assay ID: 17K-28007 Instrument ID: T311053

Filename: C:\Sirius_T3\Mehtap\20171128_exp20_logP_training\17K-28007_phenol_pH-metric medium logP_pHpKa.t3r

Assay Model

| Settings | Value | Date/Time changed | Imported from |
|-----------------------------------|-------------|------------------------|--------------------|
| Sample name | phenol | 11/17/2017 2:14:44 PM | User entered value |
| Sample by | Weight | | Default value |
| Sample weight | | 11/28/2017 11:11:01 AM | User entered value |
| Formula weight | 94.11 g/mol | 11/17/2017 2:14:44 PM | User entered value |
| Solubility | Unknown | | Default value |
| Molecular weight | 94.11 | 11/17/2017 2:14:44 PM | User entered value |
| Individual pKa ionic environments | No | | Default value |
| Number of pKas | 1 | 11/17/2017 2:14:44 PM | User entered value |
| Sample is a | Acid | 11/17/2017 2:14:44 PM | User entered value |
| pKa 1 | 9.79 | 11/29/2017 1:00:18 PM | User entered value |
| logP (neutral XH) | 1.54 | 11/17/2017 2:56:09 PM | User entered value |
| logP (X -) | -9.00 | 11/27/2017 4:23:19 PM | User entered value |

| logi (X | _) | | -3.00 | 11/21/2017 4. | 20.101101 | Joer Crite | ica value | | | | |
|---------|-------------------|--------------|--------------|---------------|--------------|------------|-----------|--------------|---------|----------------|---|
| Events | 5 | | | | | | | | | | • |
| Time | Event | Water | Acid | Base | Octanol | рН | dpH/dt | pH R-squared | pH SD | dpH/dt time | |
| 2:19.5 | Initial pH = 5.36 | 4.00000 | 0.00504 | 0.00000 | 0.40000 | 0.000 | 0.00005 | 0.0000 | 0.00000 | 10.0 | |
| 5:11.8 | Data point 1 | | | 0.00000 mL | | | 0.00335 | 0.06289 | | 10.0 s | |
| 5:58.9 | Data point 2 | | | 0.00910 mL | | | -0.01781 | 0.86156 | 0.00095 | 10.5 s | |
| 6:34.8 | Data point 3 | | | 0.01489 mL | | | 0.00782 | 0.15096 | 0.00099 | 19.5 s | |
| 7:19.6 | Data point 4 | | | 0.01858 mL | | | -0.01585 | | 0.00081 | | |
| 7:55.4 | Data point 5 | | | 0.02091 mL | | | -0.01950 | | 0.00100 | | |
| 8:39.3 | Data point 6 | | | 0.02248 mL | | | -0.01757 | | 0.00094 | 16.0 s | |
| 9:20.6 | Data point 7 | | | 0.02349 mL | | | -0.01417 | | 0.00090 | 16.5 s | |
| 10:17.7 | Data point 8 | | | 0.02420 mL | | | -0.01542 | | 0.00080 | 10.5 s | |
| 11:09.0 | Data point 9 | | | 0.02465 mL | | | -0.01761 | | 0.00090 | | |
| 11:49.8 | Data point 10 | | | 0.02495 mL | | | -0.01449 | | 0.00074 | | |
| 12:30.7 | • | | | 0.02519 mL | | | -0.01897 | | 0.00099 | 28.5 s | |
| 13:29.6 | Data point 12 | | | 0.02528 mL | | | -0.01581 | | 0.00090 | | |
| 14:44.2 | | | | 0.02549 mL | | | 0.00039 | 0.00041 | 0.00097 | | |
| 16:04.7 | • | | | 0.02578 mL | | | -0.01986 | | 0.00099 | | |
| 17:19.3 | | | | 0.02641 mL | | | -0.01802 | | 0.00095 | | |
| 18:31.7 | • | | | 0.02698 mL | | | -0.00597 | 0.11324 | 0.00087 | 30.0 s | |
| 19:42.4 | | | | 0.02803 mL | | | -0.01848 | 0.88425 | 0.00097 | 36.0 s | |
| 20:54.2 | | 1.00000 mL | 0.02524 mL | 0.03048 mL | 0.10000 mL | 9.409 | -0.01766 | 0.79490 | 0.00098 | 14.0 s | |
| 21:43.9 | Data point 19 | | | 0.03248 mL | | | -0.01709 | 0.81066 | 0.00094 | | |
| 22:45.4 | | | | 0.03518 mL | | | -0.01775 | 0.87272 | 0.00094 | 15.5 s | |
| 23:26.3 | Data point 21 | 1.00000 mL | 0.02524 mL | 0.03888 mL | 0.10000 mL | 9.977 | -0.01923 | 0.95071 | 0.00097 | 20.0 s | |
| 24:22.2 | Data point 22 | | | 0.04349 mL | | | -0.01875 | 0.86644 | 0.00099 | 15.0 s | |
| 25:02.7 | Data point 23 | 1.00000 mL | 0.02524 mL | 0.04887 mL | 0.10000 mL | 10.340 | -0.01471 | 0.86409 | 0.00078 | 10.5 s | |
| 25:49.0 | Data point 24 | 1.00000 mL | 0.02524 mL | 0.05416 mL | 0.10000 mL | 10.524 | -0.01746 | 0.80957 | 0.00096 | 17.0 s | |
| 26:31.4 | Data point 25 | 1.00000 mL | 0.02524 mL | 0.06000 mL | 0.10000 mL | 10.712 | -0.00762 | 0.44574 | 0.00056 | 10.5 s | |
| 27:17.7 | Data point 26 | 1.00000 mL | 0.02524 mL | 0.06519 mL | 0.10000 mL | 10.896 | -0.01604 | 0.75614 | 0.00091 | 16.0 s | |
| 27:59.3 | Data point 27 | 1.00000 mL | 0.02524 mL | 0.07034 mL | 0.10000 mL | 11.076 | -0.00603 | 0.46461 | 0.00044 | 10.5 s | |
| 28:45.6 | Data point 28 | 1.00000 mL | 0.02524 mL | 0.07524 mL | 0.10000 mL | 11.261 | -0.01367 | 0.73900 | 0.00079 | 10.5 s | |
| 29:21.6 | Data point 29 | 1.00000 mL | 0.02524 mL | 0.08050 mL | 0.10000 mL | 11.440 | -0.01796 | 0.84277 | 0.00097 | 32.0 s | |
| 30:34.7 | • | 1.00000 mL | 0.02524 mL | 0.08761 mL | 0.10000 mL | 11.643 | -0.01568 | 0.83548 | 0.00085 | 10.5 s | |
| 31:10.7 | | | | 0.09628 mL | | | -0.01827 | 0.83449 | 0.00099 | 51.0 s | |
| 32:32.5 | Data point 32 | | | 0.10684 mL | | | -0.01895 | 0.89783 | 0.00099 | 34.0 s | |
| 33:26.8 | Data point 33 | | | 0.10684 mL | | | -0.01286 | | 0.00069 | 10.5 s | |
| 34:42.5 | Data point 34 | | | 0.10684 mL | | | 0.01036 | 0.31629 | 0.00091 | 25.0 s | |
| 35:43.4 | • | | | 0.11863 mL | | | -0.01840 | | 0.00094 | | |
| 36:27.9 | | | | 0.12613 mL | | | -0.01551 | | 0.00097 | | |
| 37:14.8 | Data point 37 | | | 0.13079 mL | | | -0.00548 | | 0.00089 | | |
| 38:02.1 | Data point 38 | | | 0.13370 mL | | | -0.01545 | | 0.00094 | | |
| 39:05.5 | Data point 39 | | | 0.13580 mL | | | -0.01148 | 0.37162 | 0.00093 | | |
| | Data point 40 | | | 0.13706 mL | | | -0.01315 | | 0.00089 | | |
| 00.02.2 | Data point 40 | 1.50000 IIIL | 5.10000 IIIL | 5.10700 IIIL | J.JOUGO IIIL | 5.200 | 3.01010 | 0.02002 | 0.00000 | 0 0 | |



Assay name: pH-metric medium logP Analyst: Dorothy Levorse

Assay ID: 17K-28007 Instrument ID: T311053

Filename: C:\Sirius_T3\Mehtap\20171128_exp20_logP_training\17K-28007_phenol_pH-metric medium logP_pHpKa.t3r

Events (continued)

| | _ | | | | | | | | | |
|---------------------------------|--------------------------------|--------------|---------------|---------------|--------------|--------|----------------------|----------------------|---------|------------------------|
| Time | Event | Water | Acid | Base | Octanol | рН | dpH/dt | pH R-squared | • | dpH/dt time |
| 40:55.0 | Data point 41 | | | | | | -0.01228 | | 0.00091 | 22.5 s |
| 41:42.8 | Data point 42 | | | | | | | 0.23120 | 0.00096 | |
| 42:29.6 | Data point 43 | | | | | | -0.01299 | | 0.00098 | |
| 43:21.0 | Data point 44 | | | | | | -0.00991 | | 0.00082 | |
| 44:13.8 | Data point 45 | | | | | | -0.01817 | | 0.00095 | |
| 45:04.2 | Data point 46 | | | | | | -0.01538 | | 0.00085 | |
| 45:58.2 | Data point 47 | 1.00000 mL | 0.13939 mL | 0.13916 mL | 0.35000 mL | 5.555 | 0.15444 | 0.98187 | 0.00769 | Timed out at |
| l | | | | | | | | | | 59.5 s |
| 47:28.6 | Data point 48 | 1.00000 mL | 0.13939 mL | 0.13925 mL | 0.35000 mL | 6.755 | -0.03971 | 0.98862 | 0.00197 | Timed out at |
| 10.50 4 | Data a stat 40 | 4.00000! | 0.40000! | 0.40000! | 0.05000! | 7 005 | 0.00070 | 0.00400 | 0.00400 | 59.5 s |
| 48:59.1 | Data point 49 | 1.00000 mL | U. 13939 ML | U. 13930 ML | บ.35000 mL | 1.325 | -0.03876 | U.98498 | 0.00193 | Timed out at |
| 50·20 2 | Data point 50 | 1 00000 ~1 | 0 12020 ~! | 0 12025 ~! | 0.35000 ~1 | 7 627 | 0.03400 | 0.05102 | 0.00106 | 59.5 s |
| 50:29.3 | Data point 50 | 1.00000 IIIL | U. 13939 IIIL | U. 13935 IIIL | U.35000 IIIL | 1.021 | -0.02499 | 0.95193 | 0.00126 | Timed out at 59.5 s |
| 51:59.7 | Data point 51 | 1 00000 ml | 0 13030 ml | 0 130// ml | 0.35000 ml | 7 561 | -0.01897 | U 0558U | 0.00097 | |
| 51.59.7 53:29.3 | Data point 52 | | | | | | -0.01697 | | 0.00097 | |
| 53.29.3 54:52.2 | Data point 52 | | | | | | -0.01920 | | 0.00099 | |
| 5 4 .52.2 56:05.1 | Data point 54 | | | | | | -0.01940 | | 0.00099 | |
| 56.05.1 57:07.1 | Data point 55 | | | | | | -0.00166 | | 0.00097 | |
| 57.07.1 58:24.1 | Data point 56 | | | | | | -0.01537 | | 0.00089 | |
| 58:24.1 59:32.8 | Data point 57 | | | | | | -0.01563 | | 0.00089 | |
| 1:00:40.4 | | | | | | | | | | |
| 1:00:40.4 | | | | | | | -0.01393 -0.00518 | | 0.00075 | |
| | • | | | | | | | | 0.00036 | |
| 1:02:06.6 | Data point 60 | | | | | | 0.00161 | 0.09245 | 0.00026 | 10.0 s |
| 1:02:42.0 | Data point 61 Data point 62 | | | | | | -0.00211 -0.00018 | 0.03053 | 0.00059 | |
| 1:03:17.3 | | | | | | | | | 0.00053 | |
| 1:03:52.8 | | | | | | | | | 0.00042 | |
| 1:04:28.2 | • | | | | | | | 0.07493 | 0.00037 | |
| | Data point 65 | | | | | | | | 0.00042 | |
| 1:05:39.1 | Data point 66 | | | | | | 0.00192 | 0.03453 | 0.00051 | 10.0 s |
| 1:06:14.6 | | | | | | | 0.00708 | 0.40896 | 0.00055 | |
| 1:06:50.1 | Data point 68 | | | | | | | 0.04623 | 0.00078 | |
| | Data point 69 Data point 70 | | | | | | 0.00526 | 0.60434 | 0.00033 | |
| 1:08:01.4 | Data point 70 Data point 71 | | | | | | | | 0.00054 | |
| | • | | | | | | -0.01403 | | 0.00096 | |
| 1:10:55.2 | | | | | | | -0.01307 | | 0.00098 | |
| 1:11:41.2 | Data point 73 | | | | | | -0.01299 | | 0.00066 | |
| 1:12:17.1 | Data point 74 | | | | | | -0.00045 | | 0.00097 | |
| | Data point 75 | | | | | | -0.01143 | | 0.00099 | |
| | Data point 76 | | | | | | 0.00008 | | 0.00064 | |
| | Data point 77 | | | | | | -0.00819 | | 0.00095 | |
| | Data point 78 | | | | | | -0.01482 | | 0.00093 | |
| | Data point 79 | | | | | | -0.00154 | | 0.00087 | |
| | Data point 80 | | | | | | 0.01309 | | 0.00096 | |
| 1:17:41.5 | Data point 81 | 1.00000 mL | 0.26703 ML | U.∠0058 ML | 1.05000 mL | 0.929 | -0.15256 | 0.99781 | 0.00755 | Timed out at |
| 1.10.11 0 | Data point 82 | 1 00000 ml | 0.26703 ml | 0.26670 ml | 1 05000 ml | 7 055 | -0.02110 | 0 96462 | 0 00106 | 59.5 s Timed out at |
| 1.13.11.8 | Data Pullit 02 | 1.00000 IIIL | 0.20103 IIIL | 0.20070 IIIL | 1.03000 IIIL | 7.000 | -U.UZ I IU | U.3U 1 UZ | 0.00100 | 59.5 s |
| 1.20.42 2 | Data point 83 | 1 00000 ml | 0.26703 ml | 0.26675 ml | 1 05000 ml | 7 030 | -0.01385 | 0 55321 | 0.00092 | |
| | Data point 84 | | | | | | -0.01365 | | | Timed out at |
| 1.21.31.0 | Data Pullit 04 | 1.00000 IIIL | 0.20103 IIIL | 0.20000 IIIL | 1.03000 IIIL | 1.010 | -0.04900 | 0.30003 | 0.00243 | 59.5 s |
| 1.22.12 2 | Data point 95 | 1 00000 ml | 0.26703 ml | 0.36603 ml | 1 05000 ml | Q 122 | 0 01979 | 0.80076 | 0 00000 | |
| | Data point 85 | | | | | | -0.01878 -0.01785 | | 0.00098 | |
| | Data point 86 | | | | | | | | 0.00095 | |
| | Data point 87 | | | | | | -0.01295 | | 0.00095 | |
| | Data point 88 | | | | | | -0.01737 | | 0.00095 | |
| | Data point 89 | | | | | | | 0.00635 | 0.00070 | |
| 1.27:53.7 | Data point 90 | 1.00000 ML | U.20/U3 ML | U.20/5/ ML | 1.UOUUU ML | ყ. IԾU | -0.01756 | 0.0003∠ | 0.00092 | 10.0 8 |

Assay Events



Assay name:

Sample name: phenol Experiment start time: 11/28/2017 12:07:50 PM

pH-metric medium logP Analyst: Dorothy Levorse

Assay ID: 17K-28007 Instrument ID: T311053

Filename: C:\Sirius_T3\Mehtap\20171128_exp20_logP_training\17K-28007_phenol_pH-metric medium logP_pHpKa.t3r

Events (continued)

| Time | Event | Water | Acid | Base | Octanol | pН | dpH/dt | pH R-squared | pH SD | dpH/dt time |
|-----------|----------------|------------|------------|------------|------------|--------|----------|--------------|---------|----------------|
| 1:28:29.1 | Data point 91 | 1.00000 mL | 0.26703 mL | 0.26785 mL | 1.05000 mL | 9.484 | 0.01232 | 0.38407 | 0.00098 | 10.0 s |
| 1:29:20.0 | Data point 92 | 1.00000 mL | 0.26703 mL | 0.26846 mL | 1.05000 mL | 9.679 | -0.00089 | 0.00221 | 0.00093 | 10.0 s |
| 1:29:55.2 | Data point 93 | 1.00000 mL | 0.26703 mL | 0.26931 mL | 1.05000 mL | 9.890 | -0.00234 | 0.06095 | 0.00047 | 10.0 s |
| 1:30:30.5 | Data point 94 | 1.00000 mL | 0.26703 mL | 0.27063 mL | 1.05000 mL | 10.092 | 0.00700 | 0.76968 | 0.00039 | 10.0 s |
| 1:31:05.9 | Data point 95 | 1.00000 mL | 0.26703 mL | 0.27260 mL | 1.05000 mL | 10.284 | 0.00810 | 0.73675 | 0.00047 | 10.0 s |
| 1:31:41.3 | Data point 96 | 1.00000 mL | 0.26703 mL | 0.27542 mL | 1.05000 mL | 10.470 | 0.00776 | 0.19387 | 0.00087 | 14.0 s |
| 1:32:20.7 | Data point 97 | 1.00000 mL | 0.26703 mL | 0.27930 mL | 1.05000 mL | 10.682 | 0.00999 | 0.79618 | 0.00055 | 10.0 s |
| 1:32:56.1 | Data point 98 | 1.00000 mL | 0.26703 mL | 0.28462 mL | 1.05000 mL | 10.862 | 0.01097 | 0.37770 | 0.00088 | 14.5 s |
| 1:33:36.0 | Data point 99 | 1.00000 mL | 0.26703 mL | 0.29125 mL | 1.05000 mL | 11.069 | 0.01105 | 0.55241 | 0.00073 | 16.5 s |
| 1:34:18.1 | Data point 100 | 1.00000 mL | 0.26703 mL | 0.29939 mL | 1.05000 mL | 11.267 | 0.01005 | 0.56097 | 0.00066 | 10.0 s |
| 1:34:53.5 | Data point 101 | 1.00000 mL | 0.26703 mL | 0.30906 mL | 1.05000 mL | 11.460 | 0.01330 | 0.66088 | 0.00081 | 19.5 s |
| 1:35:38.6 | Data point 102 | | | 0.32065 mL | | | | 0.19942 | 0.00050 | 10.0 s |
| 1:36:14.4 | Data point 103 | 1.00000 mL | 0.26703 mL | 0.33535 mL | 1.05000 mL | 11.845 | 0.01594 | 0.67856 | 0.00095 | 19.5 s |
| 1:36:59.7 | Data point 104 | 1.00000 mL | 0.26703 mL | 0.35564 mL | 1.05000 mL | 12.037 | 0.01099 | 0.50532 | 0.00076 | 10.0 s |
| 1:37:18.6 | Assay volumes | 1.00000 mL | 0.26703 mL | 0.35564 mL | 1.05000 mL | | | | | |



pH-metric medium logP Assay name: Analyst: **Dorothy Levorse**

Assay ID: 17K-28007 Instrument ID: T311053

Filename: C:\Sirius_T3\Mehtap\20171128_exp20_logP_training\17K-28007_phenol_pH-metric medium logP_pHpKa.t3r

Assay Settings

| | Setting | Value | Original Value I | Date/Time changed | Imported from |
|--|---------|-------|------------------|-------------------|---------------|
|--|---------|-------|------------------|-------------------|---------------|

General Settings

Analyst name **Dorothy Levorse**

Standard Experiment Settings

Number of titrations 2.000 Minimum pH Maximum pH 12.000 pH step between points of 0.200 Minimum titrant addition 0.00002 mL 0.10000 mL Maximum titrant addition

Argon flow rate 100%

Start titration using Cautious pH adjust

Advanced General Settings

None Detect turbidity using Collect turbidity sensor data No Collect UV spectra No

Stir after titrant addition for 5 seconds For titrant addition, stir at 10%

Titrant Pre-Dose

Titrant pre-dose None

Assay Medium

ISA water volume 1.00 mL Water added Automatic After water addition, stir for 5 seconds At a speed of 10% Partition solvent type Octanol Partition volume 0.100 mL

Partition solvent added Automatic After partition addition, stir for 1 seconds

Sample Sonication

Sonicate No

Sample Dissolution

Perform a dissolution stage Yes

Adjust and hold pH for dissolution To start pH Stir to dissolve for 120 seconds 10%

For dissolution, stir at

Carbonate purge

Perform a carbonate purge No

Temperature Control

Wait for temperature Yes 25.0°C Required start temperature Acceptable deviation 0.5°C 60 seconds Time to wait Stir speed of 50%

Titration 1

Titrate from Low to high pH

Adjust to start pH Yes

After pH adjust stir for 30 seconds Stir to allow partitioning for 15 seconds Stirrer speed for partitioning 50%

Titration 2

Titrate from Low to high pH

Add additional water 0.00 mL Additional partition solvent volume 0.250 mL Additional partition solvent added Automatic After pH adjust stir for 30 seconds Stir to allow partitioning for 15 seconds

Stirrer speed for partitioning 55% Titration 3



Assay name: pH-metric medium logP Analyst: **Dorothy Levorse**

Instrument ID: T311053 Assay ID: 17K-28007

60%

Filename: C:\Sirius_T3\Mehtap\20171128_exp20_logP_training\17K-28007_phenol_pH-metric medium logP_pHpKa.t3r

Assay Settings (continued)

| Setting | Value | Original Value | Date/Time changed | Imported from |
|---------|-------|----------------|--------------------|---------------|
| octing | Value | Original Value | Date inite changea | imported nom |

Titrate from Low to high pH Add additional water 0.00 mL Additional partition solvent volume 0.700 mL Additional partition solvent added Automatic After pH adjust stir for 30 seconds Stir to allow partitioning for 15 seconds Stirrer speed for partitioning

Data Point Stability

Stir during data point collection No

Delay before data point collection 0 seconds Number of points to average 20 points Time interval between points 0.50 seconds Required maximum standard deviation 0.00100 dpH/dt Stability timeout after 60 seconds

Calibration Settings

| Setting | Value | Date/Time changed | Imported from |
|---------------------------|--------|------------------------|--|
| Four-Plus alpha | 0.076 | 11/28/2017 12:07:50 PM | C:\Sirius_T3\17K-28005_Blank standardisation.t3r |
| Four-Plus S | 1.0056 | 11/28/2017 12:07:50 PM | C:\Sirius_T3\17K-28005_Blank standardisation.t3r |
| Four-Plus jH | 1.0 | 11/28/2017 12:07:50 PM | C:\Sirius_T3\17K-28005_Blank standardisation.t3r |
| Four-Plus jOH | -0.9 | 11/28/2017 12:07:50 PM | C:\Sirius_T3\17K-28005_Blank standardisation.t3r |
| Base concentration factor | 1.001 | 11/28/2017 12:07:50 PM | C:\Sirius_T3\KOH17K27.t3r |

Acid concentration factor 0.995 11/28/2017 12:07:50 PM C:\Sirius_T3\17K-28006_Blank standardisation.t3r

Instrument Settings

| Setting Instrument owner Instrument ID Instrument type | Value Merck T311053 T3 Simulator | Batch Id | Install date |
|---|--|------------------------|--|
| Software version Dispenser module Dispenser 0 Syringe volume Firmware version | 1.1.3.0 Water 2.5 mL | T3DM1100253 | 3/31/2009 5:24:52 AM 3/31/2009 5:25:05 AM |
| Titrant Dispenser 2 Syringe volume Firmware version | 1.2.1(r2) Water (0.15 M KCI) Acid 0.5 mL 1.2.1(r2) | 10-10-2017 | 11/8/2017 11:33:30 AM 3/31/2009 5:25:11 AM |
| Titrant Dispenser 1 Syringe volume Firmware version | Acid (0.5 M HCI) Base 0.5 mL | 11-8-17 | 11/8/2017 11:32:21 AM 3/31/2009 5:25:21 AM |
| Titrant Dispenser 5 Syringe volume Firmware version | 1.2.1(r2) Base (0.5 M KOH) Cosolvent 2.5 mL 1.2.1(r2) | 09-22-17 | 11/27/2017 9:30:45 AM 3/31/2009 5:26:24 AM |
| Distribution valve 5 Firmware version Port A Port B | Distribution Valve 1.1.3 Methanol (80%, 0.15 M KCI) Cyclohexane | 9-26-17 | 3/31/2009 5:28:19 AM 11/16/2017 9:31:07 AM 10/19/2017 2:11:05 PM |
| Port C Port D Dispenser 3 Syringe volume | MeCN (50%, 0.15 M KCI) Dodecane Buffer 0.5 mL | 10-30-17 11-17-2017 | 11/27/2017 9:21:50 AM 11/17/2017 4:39:13 PM 8/3/2010 5:05:16 AM |
| Firmware version Titrant | 1.2.1(r2) Phosphate Buffer | | 11/8/2017 11:32:27 AM |

Report by: Dorothy Levorse 11/29/2017 1:02:07 PM



Assay name: pH-metric medium logP Analyst: Dorothy Levorse

Assay ID: 17K-28007 Instrument ID: T311053

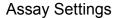
Filename: C:\Sirius_T3\Mehtap\20171128_exp20_logP_training\17K-28007_phenol_pH-metric medium logP_pHpKa.t3r

Instrument Settings (continued)

| Value | Batch Id | Install date |
|--------------------------------------|--|--|
| | | 10/22/2010 10:52:43 AM |
| | | |
| | 0.44.47 | 40/40/0047 7 40 50 444 |
| Octanol | | 10/13/2017 7:46:59 AM |
| 4.47.414.0100.000.00 | 131M1100153 | 3/31/2009 5:24:17 AM |
| | | |
| | | |
| | | |
| | T0F0700 | 0/45/0047 0:04:54 AM |
| | 13E0769 | 8/15/2017 9:21:54 AM |
| | 1/01 005 | 11/28/2017 12:08:18 PM |
| 3IVI KCI | KCL095 | 11/27/2017 9:15:10 AM |
| 500/ IDA 500/ Motor | | 44/00/0047 40:00:54 ANA |
| | | 11/28/2017 10:29:51 AM |
| | | 11/28/2017 10:29:54 AM |
| | | 11/28/2017 10:29:57 AM |
| рн 7 | | 11/28/2017 10:30:05 AM |
| 0.75.1002.55 | 44 00 47 | 11/28/2017 10:31:10 AM |
| | 11-28-17 | 11/28/2017 10:30:22 AM |
| 3e+002 mL | | 11/28/2017 10:30:33 AM |
| | | 8/5/2010 6:35:13 AM |
| | 072200 | 3/31/2009 5:24:45 AM 11/23/2010 11:22:28 AM |
| | | 11/23/2010 11.22.26 AW |
| 105 562 | 11000 | |
| | | |
| | | |
| | | 11/23/2010 11:22:28 AM |
| | | 11/25/2010 11.22.20 AW |
| | | |
| | | |
| 10 | T3AI 1100237 | 11/10/2015 9:34:13 AM |
| 1 17 AI1DI2DO2 Stenner 2 | 10/LE1100201 | 11/10/2013 3:54:13 AW |
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| T.T. 7 th 12 log 3 th to 1 grant 1/3 | | |
| Titration position | | |
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| 30% | | |
| 5 s | | |
| 30% | | |
| 10 | | |
| | | |
| 60 s | | |
| 5 s | | |
| 30% | | |
| 5 s | | |
| | Octanol 0.5 mL 1.2.1(r2) Octanol 1.17 Al1DI2DO2 Stepper 2 1.17 Al1DI2DO2 Stepper 2 1.11 Al1DI0DO4 Norgren I/O 1.1.1 T3 Electrode -4.51 mV 3M KCI 50% IPA:50% Water 0.5% Trition X-100 in H20 pH7 Wash pH 7 9.7e+003 mL 3e+002 mL 185.563 2.17439 -0.000285622 565:42:53 11/8/2017 1:14:37 PM 10 10 1.17 Al1DI2DO2 Stepper 2 1.11 Al1DI0DO4 Norgren I/O Titration position Reference position 3.50 mL 25.00 mL 5 minute(s) 1.3 mL 3.50 20.0 mL 5 s 30% 60 s 5 s 30% | Octanol 0.5 mL 1.2.1(r2) Octanol 9-14-17 T3TM1100153 1.17 Al1DI2DO2 Stepper 2 1.17 Al1DI2DO2 Stepper 2 1.11 Al1DI0DO4 Norgren I/O 1.1.1 T3 Electrode -4.51 mV 3M KCI 50% IPA:50% Water 0.5% Trition X-100 in H20 pH7 Wash pH 7 9.7e+003 mL 3e+002 mL 11-28-17 3e+002 mL 072390 11086 185.563 2.17439 -0.000285622 565:42:53 11/8/2017 1:14:37 PM 10 10 T3AL1100237 T3AL1100237 Titration position Reference position 3.50 mL 25.00 mL 5 minute(s) 1.3 mL 3.50 20.0 mL 5 s 30% 5 s 30% 10 0.01500 60 s 5 s 30% 10 0.01500 60 s 5 s 30% |

E0 calibration buffer wash stir speed

30%





Assay name: pH-metric medium logP Analyst: Dorothy Levorse

Assay ID: 17K-28007 Instrument ID: T311053

Filename: C:\Sirius_T3\Mehtap\20171128_exp20_logP_training\17K-28007_phenol_pH-metric medium logP_pHpKa.t3r

Instrument Settings (continued)

| Setting | Value | Batch Id | Install date |
|---|---------|----------|--------------|
| E0 calibration reading stir speed | 0% | | |
| Spectrometer calibration stir duration | 5 s | | |
| Spectrometer calibration stir speed | 30% | | |
| Spectrometer calibration wash pump volume | 20.0 mL | | |
| Spectrometer calibration wash stir duration | 5 s | | |
| Spectrometer calibration wash stir speed | 30% | | |
| Overhead dispense height | 10000 | | |

Refinement Settings

| | | 5 6 14 1 |
|--------------------------------|----------|-----------------|
| Setting | Value | Default value |
| Turbidity detection method | None | None |
| Turbidity wavelength to assess | 500.0 nm | 500.0 nm |
| Turbidity maximum absorbance | 0.100 | 0.100 |
| Turbidity probe threshold | 50.00 | 50.00 |
| • • | | |