



License ID 1955606
 Client ID 001-NBK-02363
 User Metrohm

Program version viva 3.0 - 69
 2024-06-26 13:44:16 UTC+2

Method parameters

Method AB445 – ASTM D6971 & D6810 - Amine & Phenol
 Method saving date 2024-06-26 13:42:58 UTC+2
 Method version 1
 Method group Main group
 Method status original
 Method saved by (full name) Metrohm International Headquarters
 Method saved by (short name) Metrohm

START Main track

General

Workplace view
 Current view on
 Track view for live window
 Live display 1 Main track
 Live display 2 Main track
 Electrode check off

Application note

- Measure 1 g sand into the sample vial. - Place a stirrer bar in the sample vial. - Add 0.05 mL – 0.6 mL reference/in-service oil into the sample vial (volume depends on sample). - Place the sample vial on the rack of the sample changer. In the «Run» window: Select sample type «Standard» to run a calibration with reference oil, or «Sample» to determine the remaining antioxidant in an in-service oil sample. Under «Sample position» specify the position of reference/in-service oil on the rack and enter the exact volume of reference/in-service oil under «Sample amount».

Sample data variables

Name	Type	Assignment	Fixed value	Comment	Monitoring
ID1	Text	ID1		Sample identification 1	off
ID2	Text	ID2		Sample identification 2	off
ID3	Text	ID3		Sample identification 3	off
Sample type	Text	Sample type		Sample type	off
Sample position	Number	Sample position		Sample position number	off
Sample amount	Number	Sample amount		Sample amount	off
Sample amount unit	Text	Sample amount unit	mL	Sample amount unit	off

Name **ID1**
 Type Text
 Assignment on ID1
 Fixed value off
 Check at start on



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Comment Sample identification 1

Name **ID2**
 Type Text
 Assignment on. ID2
 Fixed value off.
 Check at start on
 Comment Sample identification 2

Name **ID3**
 Type Text
 Assignment on. ID3
 Fixed value off.
 Check at start on
 Comment Sample identification 3

Name **Sample type**
 Type Text
 Assignment on. Sample type
 Fixed value off.
 Check at start on
 Comment Sample type

Name **Sample amount unit**
 Type Text
 Assignment on. Sample amount unit
 Fixed value on. mL
 Check at start on
 Comment Sample amount unit

Name **Sample position**
 Type Number
 Assignment on. Sample position
 Fixed value off.
 Check at start on
 Comment Sample position number
 Variable monitoring off
 Lower limit
 Upper limit
 Message
 Display message on
 Record message on
 Message by e-mail off
 E-mail template
 Subject Message from viva - method 'AOx - BP 2197' - command 'Main track'
 Acoustic signal off



Action off
 Cancel determination on
 Cancel determination and series off

Name **Sample amount**
 Type Number
 Assignment on. Sample amount
 Fixed value off.
 Check at start on
 Comment Sample amount
 Variable monitoring off
 Lower limit
 Upper limit
 Message
 Display message on
 Record message on
 Message by e-mail off
 E-mail template
 Subject Message from viva - method 'AOx - BP 2197' - command 'Main track'

Acoustic signal off
 Action off
 Cancel determination on
 Cancel determination and series off

Command comment

AB-445/1: MVA-25 - ASTM D6971 & ASTM D6810 - Determination of Amine (neutral) & Phenol (alkaline)

CALL Call prepare sample

Call text	Track name	Sample type	Condition
Call prepare sample	Prepare sample	off Sample	off

CALL Empty measuring vessel

Call text	Track name	Sample type	Condition
Drain	Drain	off Sample	off

CALL Calibration or sample

Call text	Track name	Sample type	Condition
Call sample	Sample	on Sample	off
Call calibration	Calibration curve	on Standard	off

CALL Rinse needle



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CALL

Call text	Track name	Sample type	Condition
Rinse needle	Go to rinsing position	off Sample	off

CALL

CALL Final rinsing

Call text	Track name	Sample type	Condition
Rinsing cycle	Rinsing cycle	off Sample	off

VA TRACK

VA track neutral

Return immediately off

DP

Sweep neutral

General/Hardware

Device

Device name 884_1
 Device type 884 Professional VA

Sensors/Electrodes

Working electrode RDE
 Sensor type RDE/SSE
 Reference electrode Reference electrode
 Auxiliary electrode Auxiliary electrode
 Electrode check off

Stirrer

Stirring rate 2000 min⁻¹
 Hydrodynamic measurement off

Pretreatment

Stirring time 5.0 s

Cyclovoltammetric pretreatment

Start potential 0 V
 Vertex potential 1 V
 Sweep rate 1 V/s
 Cycles 1
 Duration 2.00 s

Potentiostatic pretreatment

Potential 1 off V
 Waiting time 1 0.0 s
 Potential 2 off V
 Waiting time 2 0.0 s
 Potential 3 off V
 Waiting time 3 0.0 s
 Potential 4 off V
 Waiting time 4 0.0 s
 Potential 5 off V
 Waiting time 5 0.0 s



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Equilibration time 5.0 s

Sweep

Start potential 0 V
End potential 1.3 V
Potential step 0.012 V
Potential step time 0.1 s
Sweep rate 0.120 V/s
Pulse amplitude 0.05 V
Pulse time 0.04 s
Measuring time 0.02 s
Sweep duration 10.83 s

Post-treatment

Cleaning

Cleaning potential off V
Cleaning time 0.0 s

Standby potential

Standby potential off V

Potentiostat

Current measuring range

Highest range 2 mA
Lowest range 20 μ A
Automatically select optimum current measuring range on

VA TRACK VA track alkaline

Return immediately off

DP

Sweep alkaline

General/Hardware

Device

Device name 884_1
Device type 884 Professional VA

Sensors/Electrodes

Working electrode RDE
Sensor type RDE/SSE
Reference electrode Reference electrode
Auxiliary electrode Auxiliary electrode
Electrode check off

Stirrer

Stirring rate 2000 min⁻¹
Hydrodynamic measurement off

Pretreatment

Stirring time 5.0 s

Cyclovoltammetric pretreatment

Start potential 0 V
Vertex potential 1 V
Sweep rate 1 V/s



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Cycles 1
 Duration 2.00 s

Potentiostatic pretreatment

Potential 1 off V
 Waiting time 1 0.0 s
 Potential 2 off V
 Waiting time 2 0.0 s
 Potential 3 off V
 Waiting time 3 0.0 s
 Potential 4 off V
 Waiting time 4 0.0 s
 Potential 5 off V
 Waiting time 5 0.0 s
 Equilibration time 5.0 s

Sweep

Start potential -0.1 V
 End potential 0.7 V
 Potential step 0.012 V
 Potential step time 0.1 s
 Sweep rate 0.120 V/s
 Pulse amplitude 0.05 V
 Pulse time 0.04 s
 Measuring time 0.02 s
 Sweep duration 6.67 s

Post-treatment

Cleaning

Cleaning potential off V
 Cleaning time 0.0 s

Standby potential

Standby potential off V

Potentiostat

Current measuring range

Highest range 2 mA
 Lowest range 20 µA
 Automatically select optimum current measuring range on

TRACK Sample

Return immediately off
 Delete old data off

CALL Call dose electrolyte sam

Call text	Track name	Sample type	Condition
Dose electrolyte	Electrolyte blank off	Sample	off

Call blank sample



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CALL BLANK Call text Call blank sample
 Track name VA track neutral
 Condition off

CALL Empty vessel sample

Call text	Track name	Sample type	Condition
Empty vessel sample	Drain	off Sample	off

CALL Transfer sample

Call text	Track name	Sample type	Condition
Transfer sample	Transfer from autosampler	off Sample	off

ADD SAMPLE Add sample

Addition
 Add manually off
 Already added on
 Add with dosing device off

STIR & PURGE Stir sample

Device
 Device name 884_1
 Device type 884 Professional VA
 Stir
 Stirring rate 2000 min⁻¹
 Switch on off
 Switch off off
 Duration on
 Time 5 s
 Purge
 Switch on off
 Switch off on
 Duration off

CALL COND Call cond sample

Call text Call cond sample
 Track name VA track neutral
 Stop criteria
 Evaluation quantity off
 Number of runs on
 Number of runs 1
 Action Cancel command
 Run time off
 Condition off



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LOOP Replications sample
 Stop criteria
 Max. run number on
 Max. run number 2
 Maximum run time off
 Signal assessment for DT off
 Condition off

CALL VA Sample neutral
 Call text Measure sample neutral
 Track name VA track neutral
 Condition off

CALL Add alkaline sample

Call text	Track name	Sample type	Condition
Add alkaline solution	Alkaline solution	off Sample	off

CALL COND Cond sample alkaline
 Call text Call cond sample alkaline
 Track name VA track alkaline
 Stop criteria
 Evaluation quantity off
 Number of runs on
 Number of runs 1
 Action Cancel command
 Run time off
 Condition off

LOOP Replications sample alkal
 Stop criteria
 Max. run number on
 Max. run number 2
 Maximum run time off
 Signal assessment for DT off
 Condition off

CALL VA Sample alkaline
 Call text Measure sample alkaline
 Track name VA track alkaline
 Condition off

TRACK Calibration curve
 Return immediately off
 Delete old data off

CALL Call dose electrolyte std



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Call text	Track name	Sample type	Condition
Dose electrolyte	Electrolyte blank	off Sample	off

**CALL
BLANK**

Call blank calibration
 Call text Call blank calibration
 Track name VA track neutral
 Condition off

CALL

Empty vessel standard

Call text	Track name	Sample type	Condition
Empty vessel standard Drain		off Sample	off

CALL

Transfer standard

Call text	Track name	Sample type	Condition
Transfer sample	Transfer from autosampler	off Sample	off

ADD STD

Add standard

Standard
 Solution Standard
 Addition increments
 Number 1
 Addition volume 1 = 'SD.Sample amount' * 1000 mL
 Addition
 Add manually off
 Already added on
 Add with dosing device off

**STIR &
PURGE**

Stir calibration

Device
 Device name 884_1
 Device type 884 Professional VA
 Stir
 Stirring rate 2000 min⁻¹
 Switch on off
 Switch off off
 Duration on
 Time 5 s
 Purge
 Switch on off
 Switch off on
 Duration off



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CALL COND Call cond calibration
 Call text Call cond calibration
 Track name VA track neutral
 Stop criteria
 Evaluation quantity off
 Number of runs on
 Number of runs 1
 Action Cancel command
 Run time off
 Condition off

LOOP Replications calibration
 Stop criteria
 Max. run number on
 Max. run number 2
 Maximum run time off
 Signal assessment for DT off
 Condition off

CALL VA Calibration neutral
 Call text Measure calibration neutral
 Track name VA track neutral
 Condition off

CALL Add alkaline calibration

Call text	Track name	Sample type	Condition
Add alkaline solution	Alkaline solution	off Sample	off

CALL COND Cond calibration alkaline
 Call text Call cond calibration alkaline
 Track name VA track alkaline
 Stop criteria
 Evaluation quantity off
 Number of runs on
 Number of runs 1
 Action Cancel command
 Run time off
 Condition off

LOOP Replications calibr alkal
 Stop criteria
 Max. run number on
 Max. run number 2
 Maximum run time off
 Signal assessment for DT off
 Condition off



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CALL VA Calibration alkaline

Call text Measure calibration alkaline
 Track name VA track alkaline
 Condition off

TRACK Electrolyte blank

Return immediately off
 Delete old data off

LQH Dose blank neutral

General/Hardware

Dosing device

Dosing unit Electrolyte neutral

Parameters

Function Dosing
 Port 3
 Volume 5 mL
 Rate maximum mL/min

STIR & PURGE Stir electrolyte

Device

Device name 884_1
 Device type 884 Professional VA

Stir

Stirring rate 2000 min⁻¹
 Switch on off
 Switch off off
 Duration on
 Time 10 s

Purge

Switch on off
 Switch off on
 Duration off

TRACK Prepare sample

Return immediately off
 Delete old data off

SWING Swing waste pos

Device

Device name 858 Sample Processor
 Device type 858.0020 Professional Sample Processor

Target

Tower 1
 Swing External position
 Number 2

Parameters

Swing rate 55 °/s



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LIFT Lift waste pos
Device
Device name 858 Sample Processor
Device type 858.0020 Professional Sample Processor
Target
Tower 1
Lift position Work position mm
Parameters
Lift rate 25 mm/s

LQH Fill needle neutral
General/Hardware
Dosing device
Dosing unit Electrolyte neutral
Parameters
Function Dosing
Port 1
Volume 1 mL
Rate 10 mL/min

MOVE MOVE to sample
Device
Device name 858 Sample Processor
Device type 858.0020 Professional Sample Processor
Target
Tower 1
Move Sample position
Beaker test
Display message on
Cancel determination off
Cancel determination and series off
Parameters
Shift rate 20 °/s
Shift direction auto
Swing rate 55 °/s

LIFT Needle → special position
Device
Device name 858 Sample Processor
Device type 858.0020 Professional Sample Processor
Target
Tower 1
Lift position Special position mm
Parameters
Lift rate 25 mm/s

Stir sample ON



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STIR Device
Device name 858 Sample Processor
Device type 858.0020 Professional Sample Processor
Stirrer
Stirrer 1
Stirrer type unknown
Stirring rate 11
Action
Switch on on
Switch off off
Duration off
Time 1 min

ADD AUX Add electrolyte neutral
Auxiliary solution
Solution Electrolyte neutral
Volume 10 mL
Include volume in calculation on
Addition
Add manually off
Already added off
Add with dosing device on
Dosing rate 10 mL/min
Filling rate maximum mL/min

STIR Stir sample OFF
Device
Device name 858 Sample Processor
Device type 858.0020 Professional Sample Processor
Stirrer
Stirrer 1
Stirrer type unknown
Stirring rate 11
Action
Switch on off
Switch off off
Duration on
Time 20 s

TRACK Alkaline solution
Return immediately off
Delete old data off

STIR & PURGE Stir ON
Device
Device name 884_1



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Device type 884 Professional VA

Stir

Stirring rate 2000 min⁻¹

Switch on on

Switch off off

Duration off

Purge

Switch on off

Switch off on

Duration off

LQH

Add alkaline solution

General/Hardware

Dosing device

Dosing unit Electrolyte alkaline

Parameters

Function Dosing

Port 3

Volume 2 mL

Rate maximum mL/min

ADD AUX

Volume alkaline solution

Auxiliary solution

Solution Electrolyte alkaline

Volume = 'Add alkaline solution.VOL' * 1000 mL

Include volume in calculation on

Addition

Add manually off

Already added on

Add with dosing device off

STIR & PURGE

Stir alkaline

Device

Device name 884_1

Device type 884 Professional VA

Stir

Stirring rate 2000 min⁻¹

Switch on off

Switch off off

Duration on

Time 30 s

Purge

Switch on off

Switch off on

Duration off

Transfer from autosampler



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TRACK Return immediately off

Delete old data off

LIFT Needle → Work position

Device

Device name 858 Sample Processor

Device type 858.0020 Professional Sample Processor

Target

Tower 1

Lift position Work position mm

Parameters

Lift rate 25 mm/s

CALL Transfer solution

Call text	Track name	Sample type	Condition
Peristaltic pump ON	Peristaltic pump	off Sample	off

TRACK Peristaltic pump

Return immediately off

Delete old data off

PUMP Peristaltic pump ON

Device

Device name 858 Sample Processor

Device type 858.0020 Professional Sample Processor

Pumps

Tower 1

Pump(s) Peristaltic

Rate 5

Action

Switch on off

Switch off off

Duration on

Time 150 s

TRACK Go to rinsing position

Return immediately off

Delete old data off

CALL Empty vessel

Call text	Track name	Sample type	Condition
Drain	Drain	off Sample	off

Swing rinse needle



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SWING

Device

Device name 858 Sample Processor
 Device type 858.0020 Professional Sample Processor
 Target
 Tower 1
 Swing External position
 Number 1
 Parameters
 Swing rate 55 °/s

LIFT**Needle → Rinse position**

Device

Device name 858 Sample Processor
 Device type 858.0020 Professional Sample Processor
 Target
 Tower 1
 Lift position Work position mm
 Parameters
 Lift rate 25 mm/s

LQH**Fill RinsingStation****General/Hardware**

Dosing device

Dosing unit WashStation

Parameters

Function Dosing
 Port 1
 Volume 7 mL
 Rate maximum mL/min

CALL**CALL RinsingStation**

Call text	Track name	Sample type	Condition
Refill RinsingStation	RinsingStation	off Sample	off

STIR & PURGE**Stirrer ON**

Device

Device name 884_1
 Device type 884 Professional VA

Stir

Stirring rate 3000 min⁻¹
 Switch on on
 Switch off off
 Duration off

Purge



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Switch on off
 Switch off on
 Duration off

CALL Transfer rinsing solution

Call text	Track name	Sample type	Condition
Peristaltic pump ON	Peristaltic pump off	Sample	off

LIFT Lift needle

Device
 Device name 858 Sample Processor
 Device type 858.0020 Professional Sample Processor
 Target
 Tower 1
 Lift position Home position mm
 Parameters
 Lift rate 25 mm/s

PUMP Dose rinse EtOH

Device
 Device name 858 Sample Processor
 Device type 858.0020 Professional Sample Processor
 Pumps
 Tower 1
 Pump(s) 2
 Action
 Switch on off
 Switch off off
 Duration on
 Time 3 s

PUMP Empty tube

Device
 Device name 858 Sample Processor
 Device type 858.0020 Professional Sample Processor
 Pumps
 Tower 1
 Pump(s) Peristaltic
 Rate 5
 Action
 Switch on off
 Switch off off
 Duration on
 Time 30 s

RinsingStation



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TRACK Return immediately on

Delete old data off

WAIT Wait 40 s

Wait

Stop track and waiting for [Continue] off

Stop all tracks and waiting for [Continue] off

Waiting time on

Time 40

Unit s

Message

Record message off

Message by e-mail off

Acoustic signal off

LQH Refill RinsingStation

General/Hardware

Dosing device

Dosing unit WashStation

Parameters

Function Dosing

Port 1

Volume 3 mL

Rate 4 mL/min

TRACK Rinsing cycle

Return immediately off

Delete old data off

STIR & PURGE Stir rinse ON

Device

Device name 884_1

Device type 884 Professional VA

Stir

Stirring rate 2000 min⁻¹

Switch on on

Switch off off

Duration off

Purge

Switch on off

Switch off on

Duration off

LOOP LOOP Rinsing

Stop criteria

Max. run number on

Max. run number 2



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Maximum run time off
 Signal assessment for DT off
 Condition off

CALL CALL Drain

Call text	Track name	Sample type	Condition
Drain	Drain	off Sample	off

CALL CALL Rinse

Call text	Track name	Sample type	Condition
Rinse	Rinse	off Sample	off

TRACK Drain

Return immediately off
 Delete old data off

PUMP Draining time

Device
 Device name 858 Sample Processor
 Device type 858.0010 Professional Sample Processor

Pumps
 Tower 1
 Pump(s) 1

Action
 Switch on off
 Switch off off
 Duration on
 Time 15 s

TRACK Rinse

Return immediately off
 Delete old data off

PUMP Rinsing time

Device
 Device name 858 Sample Processor
 Device type 858.0010 Professional Sample Processor

Pumps
 Tower 1
 Pump(s) 2

Action
 Switch on off
 Switch off off
 Duration on
 Time 5 s



TRACK Fill DU neutral
 Return immediately off
 Delete old data off

LQH DU Electrolyte neutral
General/Hardware
 Dosing device
 Dosing unit Electrolyte neutral
Parameters
 Function Fill
 Port 2
 Rate maximum mL/min

TRACK Fill DU alkaline
 Return immediately off
 Delete old data off

LQH DU Electrolyte alkaline
General/Hardware
 Dosing device
 Dosing unit Electrolyte alkaline
Parameters
 Function Fill
 Port 2
 Rate maximum mL/min

TRACK Fill DU WashStation
 Return immediately off
 Delete old data off

LQH DU WashStation
General/Hardware
 Dosing device
 Dosing unit WashStation
Parameters
 Function Fill
 Port 2
 Rate maximum mL/min

TRACK Shut off
 Return immediately off
 Delete old data off

PUMP PUMPS Rinse OFF
 Device
 Device name 858 Sample Processor
 Device type 858.0020 Professional Sample Processor
 Pumps
 Tower 1



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Pump(s) 1+2
 Action
 Switch on off
 Switch off on
 Duration off
 Time 8.0 s

PUMP PUMP Peri OFF

Device
 Device name 858 Sample Processor
 Device type 858.0020 Professional Sample Processor
 Pumps
 Tower 1
 Pump(s) Peristaltic
 Rate 10
 Action
 Switch on off
 Switch off on
 Duration off
 Time 300.0 s

STIR STIR OFF

Device
 Device name 858 Sample Processor
 Device type 858.0020 Professional Sample Processor
 Stirrer
 Stirrer 1
 Stirrer type unknown
 Stirring rate 11
 Action
 Switch on off
 Switch off on
 Duration off
 Time 10.0 s

STIR & PURGE STIR & PURGE OFF

Device
 Device name 884_1
 Device type 884 Professional VA
 Stir
 Stirring rate 2000 min⁻¹
 Switch on off
 Switch off on
 Duration off
 Purge
 Switch on off
 Switch off on



Duration off

EXIT Exit track

CALL Exit shut off

Call text	Track name	Sample type	Condition
Exit shut off	Shut off	off Sample	off

CALL Call fill DU

Call text	Track name	Sample type	Condition
Fill DU neutral	Fill DU neutral	off Sample	off
Fill DU alkaline	Fill DU alkaline	off Sample	off
Fill DU WashStation	Fill DU WashStation	off Sample	off

LIFT Needle → Home position

Device
 Device name 858 Sample Processor
 Device type 858.0020 Professional Sample Processor
 Target
 Tower 1
 Lift position Home position mm
 Parameters
 Lift rate 25 mm/s

ERROR Error track

CALL Error shut off

Call text	Track name	Sample type	Condition
Error shut off	Shut off	off Sample	off

Evaluation parameters

General

Sweep alkaline
Data processing
 Smoothing 5
 Reversed peaks off
Curve evaluation
 Fixed point evaluation off
Sweep neutral



Data processing

Smoothing 5
 Reversed peaks off

Curve evaluation

Fixed point evaluation off

Substances

Sweep alkaline

Substances - Recognition

Substance	Active	Characteristic potential	Tolerance	Min. width	Max. width	Min. measured quantity
Phenol	on	0.3 V	0.2 V	0.1 V	0.7 V	10 nA

Sweep alkaline

Substances - Baseline

Substance	Baseline type	Start base point	End base point
Phenol	Linear	Automatically	Automatically

Sweep neutral

Substances - Recognition

Substance	Active	Characteristic potential	Tolerance	Min. width	Max. width	Min. measured quantity
Amine	on	0.7 V	0.2 V	0.1 V	0.7 V	10 nA

Sweep neutral

Substances - Baseline

Substance	Baseline type	Start base point	End base point
Amine	Linear	Automatically	Automatically

Standards

Standards

Name	Standard
Amine	1000 mL/L
Phenol	1000 mL/L

Calibration

General

Calibration method External calibration
 Blank value correction with evaluation off
 quantity

Sweep alkaline



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Calibration curves

Substance	Evaluation quantity	Curve type	Weighting
Phenol	Area	Linear regression through 0	on

Sweep neutral

Calibration curves

Substance	Evaluation quantity	Curve type	Weighting
Amine	Area	Linear regression through 0	on

Results

Substance concentration in the sample

Sweep alkaline

Substance	Decimal places	Assignment
Phenol	2	none

Substance concentration in the sample

Sweep neutral

Substance	Decimal places	Assignment
Amine	2	none

Results

Additional results

Result	Places	Prefix	Unit
Peak potential	3		V
Height	2	#	A
RSD of the heights of all replications	1		%
Measured value	2	#	A
RSD of the measured values of all replications	1		%
Area	3	μ	C
RSD of the areas of all replications	1		%
Start base point	3		
End base point	3		
Standardized area	3		
Standardized height	3		
Standardized measured value	3		
Total volume	3	#	L
Zero-order coefficient	3		



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Result	Places	Prefix	Unit
First-order coefficient	3		
Second-order coefficient	3		
Fourth-order coefficient	3		
Coefficient of determination	5		
Substance concentration in measuring vessel	2	#	
RSD of the substance concentration in measuring vessel	1		%
Amount of substance	2	#	
RSD of the substance concentration in the sample	1		%
Effective addition volume of the standard solution for the evaluation ratio	2	#	L
RSD of the effective addition volume of the standard solution for the evaluation ratio	1		%
Calibration factor DT	2	#	
RSD of the calibration factor DT	1		%
Effective addition volume of the sample solution for the evaluation ratio	2	#	L
RSD of the effective addition volume of the sample solution for the evaluation ratio	1		%

User-defined results

Result type	Result name	Formula	Unit	Decimal places	Assignment	Description
Single result	Remaining Phenol	= 'RS.Sweep alkaline.Phenol.CONC' / 'ED.Standards.Standard.Phenol.CONC' * 100	%	1	RS01	
Single result	Remaining Amine	= 'RS.Sweep neutral.% Amine.CONC' / 'ED.Standards.Standard.Amine.CONC' * 100		1	RS02	
Single result	Area Phenol mean	= 'RS.Sweep alkaline.Phenol.VAR{1}.AREA.MNV' * 1000000	µC	3	RS04	
Single result	Area Phenol RSD	= 'RS.Sweep alkaline.Phenol.VAR{1}.AREA.RSD'	%	1	RS05	
Single result	Area Amine mean	= 'RS.Sweep neutral.% Amine.VAR{1}.AREA.MNV' * 1000000	µC	3	RS07	
Single result	Area Amine RSD	= 'RS.Sweep neutral.% Amine.VAR{1}.AREA.RSD'		1	RS08	

Database

Name database viva