



License ID 459712
Client ID 001-NBK-00558
User Metrohm

Program version viva 2.0 - 54
2018-09-27 11:10:40 UTC+2

Method parameters

Method AB 433 Activation of scTRACE Gold
Method saving date 2018-09-27 11:09:52 UTC+2
Method version 1
Method group viva example methods
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 test on

Application note

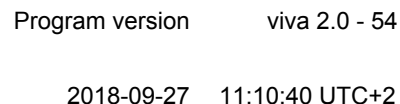
Measuring solution: 12 mL activation solution ($c(\text{H}_2\text{SO}_4) = 0.5 \text{ mol/L}$, $c(\text{KCl}) = 0.05 \text{ mol/L}$)

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			off
Sample amount	Number	Sample amount			off
Sample amount unit	Text	Sample amount unit			off

Name **ID1**
Type Text
Assignment on. ID1
Fixed value off.
Check at start on
Comment Sample identification 1

Name **ID2**
Type Text
Assignment on. ID2
Fixed value off.
Check at start on



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	

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

Name	Sample amount
Type	Number
Assignment	on. Sample amount
Fixed value	off.
Check at start	on
Comment	
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 'scTRACE Gold Activation_autoRinse' - command 'Main track'
Acoustic signal	off
Action	off
Cancel determination	on
Cancel determination and series	off

AB 433/1: Activation of scTRACE Gold

Page 2 of 7



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ADD SAMPLE

Addition

Add manually on
Display standard message on
Display message defined by the user off
Already added off
Add with dosing device off

CALL VA

Call activation

Call text Call activation
Track name VA track
Condition off

VA TRACK

VA track

Return immediately off

LOOP

Replications

Stop criteria

Max. run number on
Max. run number 4
Maximum run time off
Signal assessment for DT off
Condition off

CVS

Activation

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 test on

Stirrer

Stirring rate 2000 min⁻¹
Hydrodynamic measurement off

Pretreatment

Stirring time 10 s

Cyclovoltammetric pretreatment

Start potential -1.5 V
Vertex potential 1.0 V
Sweep rate 1 V/s
Cycles 10
Duration 50.00 s

Potentiostatic pretreatment



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Potential 1 -1.0 V
Waiting time 1 10 s
Potential 2 -0.3 V
Waiting time 2 10 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 -0.3 V
1st vertex potential 0.2 V
2nd vertex potential -0.3 V
Potential step 0.01 V
Potential step time 0.025 s
Sweep rate 0.4 V/s
Preparation cycles 0
Measuring cycles 1
Sweep duration 2.55 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 224 mA
Lowest range 20 μ A

TRACK

Shut off

Return immediately off
Delete old data off

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



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Program version viva 2.0 - 54
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Switch on off
Switch off on
Duration off

**MAIN
VALVE**

N2 OFF

Device

Device name 884_1

Device type 884 Professional VA

Action

Open off

Close on

EXIT

Exit track

CALL

Exit shut off

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

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

Activation

Data processing

Smoothing 1

Reversed peaks off

Curve evaluation

Fixed point evaluation on

Fixed points

Fixed point	Measured quantity	Fixed value	Sweep direction
1	Potential	0.075 V	anodic
2	Potential	0.075 V	cathodic

Substances

Activation

Substances - Recognition



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Activation
Substances - Baseline

Activation
Calibration curves

Results
Substance concentration in the sample
Activation

Results
Additional results

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



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Result type	Result name	Formula	Unit	Decimal places	Assignment	Description
Single result	Delta I (75 mV) - 1-1	= ('RS.Activation. VAR{1}.REP{1}.FP {1}.CUR' - 'RS. Activation.VAR{1}. REP{1}.FP{2}.CUR') * 1000000000	nA	1	RS01	
Single result	Delta I (75 mV) - 1-2	= ('RS.Activation. VAR{1}.REP{2}.FP {1}.CUR' - 'RS. Activation.VAR{1}. REP{2}.FP{2}.CUR') * 1000000000	nA	1	RS02	
Single result	Delta I (75 mV) - 1-3	= ('RS.Activation. VAR{1}.REP{3}.FP {1}.CUR' - 'RS. Activation.VAR{1}. REP{3}.FP{2}.CUR') * 1000000000	nA	1	RS03	
Single result	Delta I (75 mV) - 1-4	= ('RS.Activation. VAR{1}.REP{4}.FP {1}.CUR' - 'RS. Activation.VAR{1}. REP{4}.FP{2}.CUR') * 1000000000	nA	1	RS04	

Database

Name database viva