



License ID 459712  
Client ID 001-NBK-00348  
User Metrohm

Program version viva 2.0 - 54  
2017-05-24 13:32:31 UTC+2

## Method parameters

Method . . . . . AB 422 Cleaning scTRACE Gold  
Method saving date . . . . . 2017-05-23 11:03:23 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 test . . . . . off

#### Application note

### 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 amount	Number	Sample amount	10	Sample amount	off
Sample amount unit	Text	Sample amount unit		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  
Comment . . . . . Sample identification 2



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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 . . . . . off.  
Check at start . . . . . on  
Comment . . . . . Sample amount unit

Name . . . . . **Sample amount**  
Type . . . . . Number  
Assignment . . . . . on. . . . . Sample amount  
Fixed value . . . . . on. . . . . 10  
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 'New method 3' - command 'Main track'  
Acoustic signal . . . . . off  
Action . . . . . off  
Cancel determination . . . . . on  
Cancel determination and series . . . . . off

#### Command comment

AB 422/2: Cleaning of the scTRACE Gold

#### ADD SAMPLE

##### H20

Addition

Add manually . . . . . on



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

**ADD AUX Add electrolyte**

Auxiliary solution

Solution . . . . . Electrolyte  
Volume . . . . . 1 mL  
Include volume in calculation . . . . . on

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 Measure sample**

Call text . . . . . Measure sample  
Track name . . . . . VA track  
Condition . . . . . off

**VA TRACK VA track**

Return immediately . . . . . off

**LOOP Replications**

Stop criteria

Max. run number . . . . . on  
Max. run number . . . . . 5  
Maximum run time . . . . . off  
Signal assessment for DT . . . . . off  
Condition . . . . . off

**DP Cleaning**

**General/Hardware**

Device

Device name . . . . . 884\_1  
Device type . . . . . 884 Professional VA

Sensors/Electrodes

Working electrode . . . . . scTRACE Gold  
Sensor type . . . . . scTRACE Gold  
Reference electrode . . . . . Reference electrode  
Auxiliary electrode . . . . . Auxiliary electrode  
Electrode test . . . . . off

Stirrer

Stirring rate . . . . . 2000 min<sup>-1</sup>  
Hydrodynamic measurement . . . . . off

**Pretreatment**



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Stirring time . . . . . 5 s

Cyclovoltammetric pretreatment

Start potential . . . . . -0.7 V

Vertex potential . . . . . 1 V

Sweep rate . . . . . 1 V/s

Cycles . . . . . 20

Duration . . . . . 68.00 s

Potentiostatic pretreatment

Potential 1 . . . . . 0.9 V

Waiting time 1 . . . . . 10 s

Potential 2 . . . . . 0.3 V

Waiting time 2 . . . . . 5 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 s

**Sweep**

Start potential . . . . . 0.3 V

End potential . . . . . 0.6 V

Potential step . . . . . 0.004 V

Potential step time . . . . . 0.4 s

Sweep rate . . . . . 0.010 V/s

Pulse amplitude . . . . . 0.05 V

Pulse time . . . . . 0.04 s

Measuring time . . . . . 0.02 s

Sweep duration . . . . . 30.00 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  $\mu$ A

Automatically select optimum current measuring range . . . . . on

**TRACK**

**Shut off**

Return immediately . . . . . off

Delete old data . . . . . off

**STIR & PURGE OFF**



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## STIR & PURGE

### Device

Device name . . . . . 884\_1  
Device type . . . . . 884 Professional VA

### Stir

Stirring rate . . . . . 2000 min<sup>-1</sup>  
Switch on . . . . . off  
Switch off . . . . . on  
Duration . . . . . off

### Purge

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

#### Cleaning

#### Data processing

Smoothing . . . . . 1  
Reversed peaks . . . . . off

#### Curve evaluation



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Fixed point evaluation . . . . . off

## Substances

### Cleaning

#### Substances - Recognition

### Cleaning

#### Substances - Baseline

### Cleaning

#### Calibration curves

## Results

### Substance concentration in the sample

#### Cleaning

## 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		%



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Result	Places	Prefix	Unit
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		%

**Database**

Name database . . . . . viva