ION 3 PLUS: ROTATING DISK ELECTRODE (RDE)

The new rotating disk electrode is assembled on a driving shaft (which has a steady and adjustable angular speed ω) perpendicularly to the disk surface. As a result of this movement, the fluid near the disk produces a radial speed, thus moving it away from the middle of the disk. Then the shifted fluid is replaced with a "regular" flow on the surface. The rotating disk electrode acts as a "pump" since it sucks liquid solutions from the cell.

Figure 1 - rotating disk electrode



- 1 Reference electrode
- **2** Rotating disk electrode
- 3 Counter
- 4 Ionix³⁺ connections
- **5** Speed controller

- **1** External surface
- 2 Electrode centre



Figure 2- Rotating disk electrode

The rotating disk electrode provides an efficient and reproducible transfer of liquids, thus allowing for the analytical measurements to gain reproducibility and accuracy.

STEROGLASS ROTATING DISK ELECTRODE

Steroglass rotating disk electrode is placed into the conical slot of **ION3** + pantograph, instead of the propeller stirrer used with other stationary electrodes.

ION3⁺ voltammetry system connections are made possible by a small coaxial cable (standard), while external speed controller connection takes place through a multipolar shielded cable (standard with the said controller).

HOW TO ORDER

DESCRIPTION

STEROGLASS CODE

ROTATING DISK ELECTRODE RDE

DKFM057417

ION ³ PLUS: THE NEW "WAVE" SOFTWARE

• UPDATED TECHNIQUES:

-PSA (Anodic Stripping Analysis) -CCSA (Constant current stripping analysis) -DPS (Differential pulse) -SWS (Square Wave)

🖳 Steroglass - Ion³ +									
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• EASY PARAMETERS SETUP

- Aughte describion				
Deposition potential (mV)	370 🚦	Pulse amplitude (mV)	50 📑	Cancel
Deposition time (s)	120 📑	Pulse duration (ms)	20 📑	
Stirring speed (rpm)	300 💌	Time between pulses (ms)	100 📑	
Waiting time before scan (s)	10 📑	Scan end potential (mV)	800 📫	
Electrode Drop size (a.u.)	30 🚦	Scan speed (mV/s)	40 🐺	
Electrode type	Disk 💌	Current range	20μΑ 💌	
Purging		Analysis		
Purging time (s)	0 🗧	Number of additions		
Blanketing activation	No 💌	Number of additions		

AUTOMATIC ELECTRODE SETUP BY POTENTIAL RATE ELECTRODE CONTROL BY CYCLIC VOLTAMMETRY

🖳 Steroglass - Ion³ +									
<u>File D</u> isplay <u>M</u> ethods	Analysis Tools About								
🎏 🍇 👗 🕨 🕷	Startup								
	Mercury electrode preparation Gold electrode preparation								
	<u>P</u> urging Set a p <u>o</u> tential								
	Electrode Cleaning Setup (Hg analyte only)								
	Electrode <u>t</u> est (CYV)								

• USER-FRIENDLY

