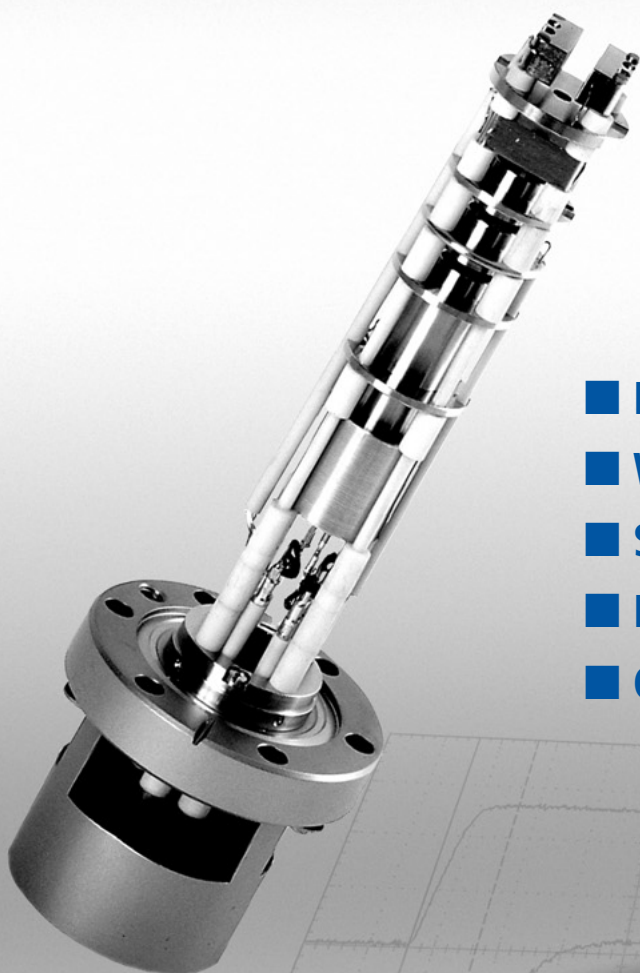
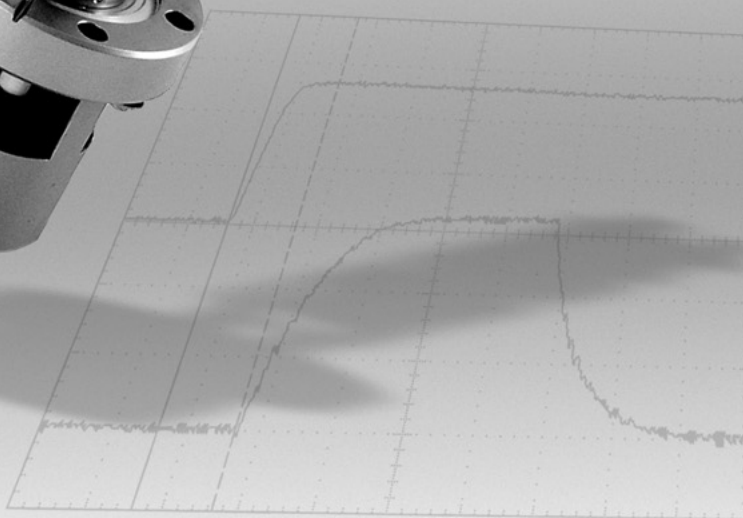


COMPONENTS FOR SURFACE ANALYSIS

# Electron Source EQ 22/35



- High electron current
- Wide energy range
- Small spot size
- Integrated beam deflection
- Optional pulse mode



# Electron Source EQ 22/35

The EQ 22/35 is designed for stable and reliable operation for most electron source applications including AES, scanning applications, imaging, EELS and electron pulse or desorption experiments.

## Main features:

- Energy range 20 eV - 5 keV
- Energy width < 1 eV
- Sample current up to 200  $\mu$ A
- Spot size down to 50  $\mu$ m
- Scan area 10 x 10 mm<sup>2</sup>
- Key stone correction
- $\mu$ -metal shielding
- Hair pin cathode
- Insertion depth 154 mm, OD 33.5 mm
- Mounting flange DN35CF, 2.75" OD
- Bakeable up to 250°C

Due to the high transmission of its Einzel lens the electron source EQ 22/35 provides high electron beam currents over a wide energy range.

## Options:

- Customized insertion depth
- Cu-shielding for  $\mu$ -metal chamber mounting
- Fine focus microformed tip cathode
- Low current version for accurate operation below 10 nA

## Typical Sample current / Spot size

Energy [keV]	0.02	0.2	1	3	5
FWHM [ $\mu$ m]	950	350	150	80	50
I Sample [mA]	0.3	3	9	20	30

## Controls



### DIGITAL POWER UNIT PU-EQ22

- Fully digitized beam current regulation:  
Const. emission current or const. filament voltage
- High thermal and electrical stability
- Internal / external mapping capability,  
0-10 V analog output / input, internal digital  
mapping >30  $\mu$ s/pixel, max. 100x100 pixel  
in 10x10 mm<sup>2</sup>
- Complete remote control via IEC 488 / RS232  
interfaces
- Storage of up to 9 parameter sets
- 19" (W) x 132 mm (H) x 494.5 mm (L), 17 kg
- 230/115 V, 120VA, 50/60 Hz

### BEAM CHOPPER

- Adaptable to all EQ 22/35 packages
- Beam energy 0.02 - 2.5 keV
- Beam modes:  
constant or pulsed
- Pulse trigger: external TTL signal,  
0 - 2 kHz
- Pulse width 1 - 50  $\mu$ s
- Constant delay between trigger slope and  
electron pulse: ~ 270ns
- Table top module  
186.3mm (W) x 132 mm (H) x 262 mm (L), 3 kg

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