

ParaCell Electrochemical Cell Kit



Cell Description

The ParaCell Kit is an electrochemical cell for flat samples allowing for two equal sized electrodes placed in an opposed geometry. The cell is designed so that large and bulky samples (e.g. a 12" wafer) can be accommodated on either end. This is ideal for experiments involving two electrodes interest, eg galvanic corrosion or electrochemical noise).

The cell body is chemically resistant polycarbonate, and all metal is stainless steel. Plastic bushings isolate the two metal end brackets, preventing shorts between the working and counter electrodes.

Each end plate has a central hole where an electrode is exposed and two threaded holes that accommodate #7 bushings and plugs. The top hole on the work side is intended for positioning of a reference electrode. The other holes can be used to fill the cell or for addition of a degassing apparatus.. The top holes also have a small vent hole that works as a pressure release when degassing the cell using a sparge tube.

Specifications

Dimensions

Volume Approximately 300 mL normal use
Size (l x w x h) Approximately 30 x 15 x 15 cm; actual will vary with setup

Working Electrode

Exposed Area 2.85 cm² nominal
Max Sample Thickness 2.5 cm
Bracket to WE Opening Length 5 cm (square sample)
Max Sample Dimensions Virtually unlimited

Counter Electrode

Type High Density Graphite
Size square: 25 mm edge, 5 mm thick

Chemical Compatibility

Wetted Materials Polycarbonate, Pyrex, Teflon, nylon (can be replaced with Teflon)
Non-Wetted Materials Above, plus stainless steel

Parts List

Quantity	Description	Quantity	Description
1	Manual, ParaCell	2	Sample Brackets with Banana Jacks, stainless steel
2	ParaCell End Plates, polycarbonate	1	Counter Electrode, graphite
1	ParaCell Cell Body, polycarbonate	4	Threaded Draw Rods, stainless steel
2	End Brackets, stainless steel	8	Finger Nuts, stainless steel
2	Body O-ring (TFE coated silicone)	8	Hat Washers, PVC
2	Sample O-ring (TFE coated silicone)	3	#7 bushings (nylon w/o-ring)
1	Bridge tube, Pyrex	2	#7 plugs (nylon)
1	#11 bushing (nylon w/o-ring)		

