

Jackfish Spectroelectrochemical Cells

J1F, J1W



J2F, J2W



Materials	All wetted components are made of glass, Viton, Perfluoroelastomer and PEEK/PTFE. All components can be rigorously cleaned according to standard electrochemistry procedures (see footnote).	Under normal use, the wetted materials are glass, Viton, Perfluoroelastomer and PEEK/PTFE. The rubber septum is exposed to solvent vapours. Celcon compression caps cannot be acid washed.
Electrolyte options	Ground glass joints designed for use with aqueous electrolyte.	Completely sealed cell design is compatible with both aqueous and volatile solvents.
Counter electrode (CE)	Jackfish offers a choice of Pt or Au CE. Extra $\frac{7}{16}$ ground glass joints are supplied for users to utilize a metal wire of their choice.	Jackfish offers a choice of Pt or Au CE. Standard 6-mm diameter compression-style fitting accommodates a variety of commercial electrodes.
Reference electrode (RE)	Reference arm is separated with a stopcock which acts as a salt bridge preventing migration of RE filling solution into the cell body. Jackfish offers Ag/AgCl RE*, or the user can supply their own to fit in the 18 mm ID reference arm.	Electrodes are inserted directly into the cell in close proximity to the working electrode, reducing the impedance of the RE. A standard Ag/AgCl RE is included with each J2. The 6-mm diameter compression-style port accommodates a variety of aqueous and non-aqueous commercial electrodes.
Air-sensitive chemistry	Only possible by applying vacuum grease to the ground glass joints. Wetted ground glass joints slowly evaporate water to the environment and are unsuitable for use in a glovebox.	Completely sealed design can be used with Schlenk techniques, or in a glovebox.
Minimum cell volume	20 mL (including reference arm)	10 mL

Both models are offered with two options for the cell base depending on ATR crystal type. The J1F and J2F bases are designed to use VeeMAX Face-Angled Crystals. The J1W and J2W cell bases use of micromachined grooved wafers (ATR-SEIRAS optimized and universal wafer). Each cell base is compatible with both the J1 and the J2 glassware.

Footnote

Glass components can be cleaned in warm acid baths.

PTFE, Viton, Perfluoroelastomer and PEEK can be cleaned in room temperature piranha solution.

*RE is an optional ad-on and is not included in standard J1 model.

Appropriate caution and safety measures must be taken when working with acid solutions.

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