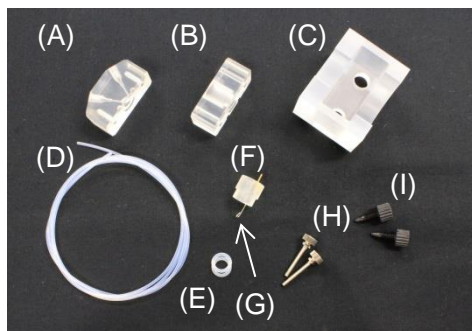


# 013486 QCMT Flow cell kit

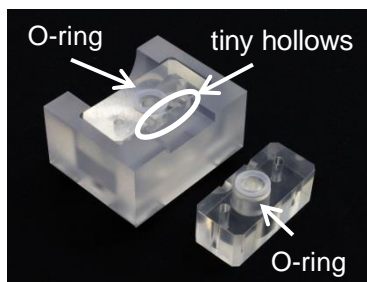


## Contents:

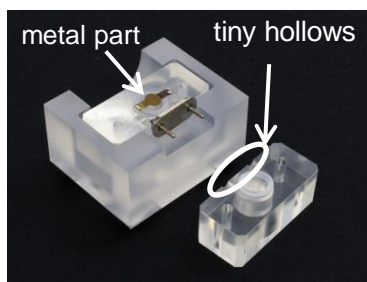
(A) QCM flow cell (PMP)	1pc
(B) EQCM cell (PMP)	1pc
(C) cell holder (PMP)	1pc
(D) Teflon tube	1 m
(E) Silicon O-ring	2pcs
(F) PMP cap	1pc
(G) Pt counter electrode for EQCM	1pc
(H) Fixing screw	2pcs
(I) Fitting (PEEK)	2pcs

(PMP :poly methylpentene resin.)

## • Assembly



1. Put the QCM flow cell (A) into the cell holder (C) by facing the side of two tiny hollows (in half cylinder shape) of A to the side of small dent (in shallow step shape) of C. Set the silicon O-rings (E) into the center hole of QCM flow cell (A) and EQCM cell (B) respectively.

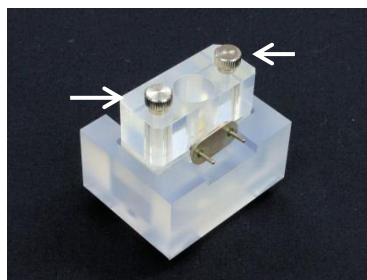


2. Put the Metal part of the quartz crystal (optional) to the center of the O-ring (E) on the QCM flow cell (A). Put on the EQCM cell (B) carefully with making its tiny hollows face same direction. Check the terminal pin connecting with the metal part that touch the sample solution.

Quartz crystal (option) :  
013610 Quartz crystal Au (5 pcs)  
013447 Quartz crystal Pt (3 pcs)

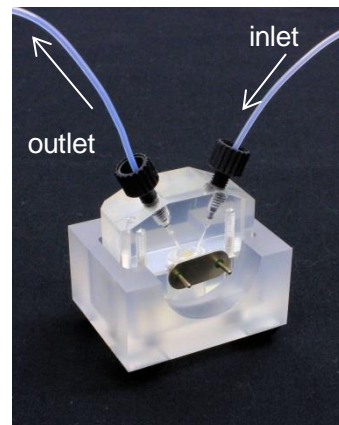
3. Fix two cells (A&B) with two fixing screws(H). Gradually tight two screws in turn with nice balance.

**Warning:** The excessive screwing may possibly cause the Quartz crystal broken.



## • Applications

Set the terminal pin of the Quartz crystal to the semicircular portion of the holder (C).



## • QCM flow cell mode:

For QCM flow cell detection, put the QCM flow cell (A) part on the upper side of the Flow cell holder (C). Cut the Teflon tube (D) in appropriate length and insert the tubes to the fittings (I). Expose the tip of Teflon tube from fittings, and insert the fittings to QCM flow cell (A). Connect terminal pin that contact the metal plate that touch the sample solution of the Quartz crystal to the oscillator working lead. When the terminal pins are in front, set the flow channel from right to left. (shown in left picture)

### CAUTION

1. Beware of the flow rate. Excessive flow rate may cause the crystal oscillator to be broken.
2. Any air bubbles in cell will induce a noise in experiment. In order to suppress the bubbles generation, it is better way to fill the cell (A) with analyte solution beforehand.



## • EQCM cell mode:

Set Pt counter electrode (G) and a reference electrode (option) to PMP cap (F), and insert the cap to EQCM cell (B). Be careful the electrodes not to touch the Quartz crystal. Connect terminal pin that contact the metal plate that touch the sample solution of the Quartz crystal to the oscillator working lead.

Reference electrode (option) :  
012167 RE-1B (for aqueous)  
012170 RE-7 (for non aqueous)



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