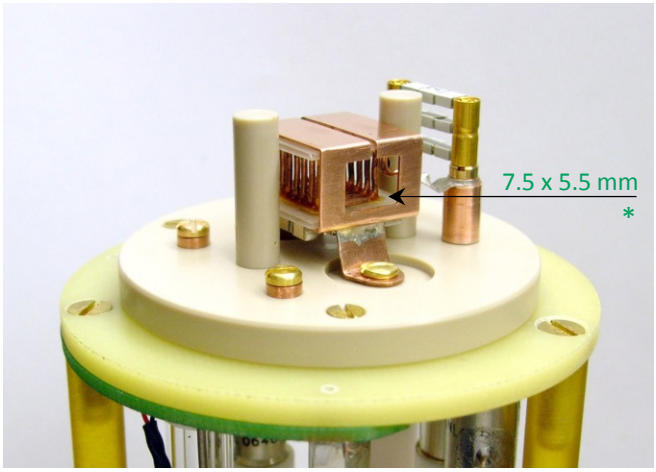
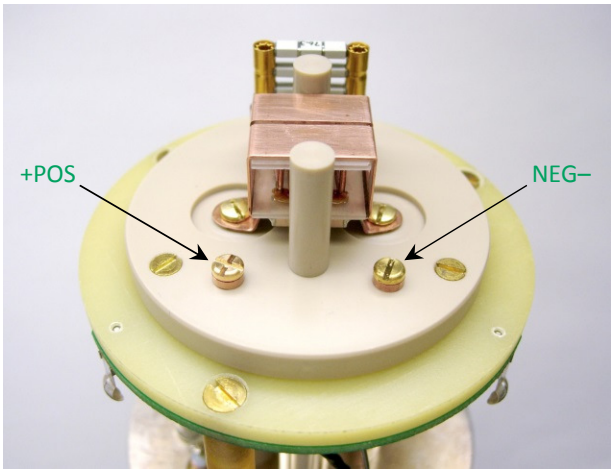
400 MHz Dual Use
Static ^{1}H–X Low-E Probe

• In situ battery NMR • Oriented proteins

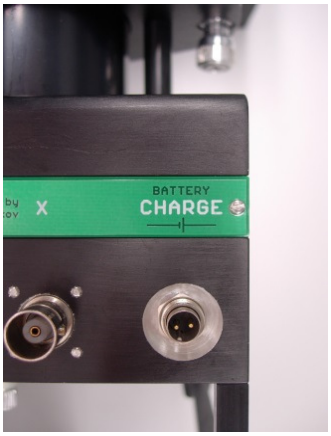


Probehead with rectangular sample coils



Charge terminals for battery cell electrodes

- Dual use probe for aligned membranes *or* in situ NMR of electrochemical cells
- Sensitive X detection with Low-E ^{1}H decoupling for lossy electrolytes or lipid bilayers
- Cell charging ability with convenient probehead connections for cell electrodes
- Cell charging leads are filtered at rf frequency to cancel noise pickup
- Cell charge connector at probe base
- Variable temperature down to −50°C…100°C
- Interchangeable sample coils platforms:
  a. Rectangular coils for mechanically aligned bilayers *and* sealed battery cells, 7.5 x 5.5 mm sample opening, with detection at X = ^{15}N, ^{2}H, ^{31}P, ^{7}Li. *
  b. Round ∅ 5.0 mm coils for proteins in bicelles, with detection at X = ^{15}N, ^{2}H, and ^{31}P. *



Battery charge connector

* Other isotopes or sample geometry are arranged upon request: pgorkov@magnet.fsu.edu