

SUPPORTING INFORMATION

Impact of the binder nature on the morphological change of sulfur electrodes upon cycling investigated by *in-situ* characterization methods

Quentin Lemarié^{a,b}, Hassane Idrissi^b, Eric Maire^b, Pierre-Xavier Thivel^c, Fannie Alloin^c,
Lionel Roué^{a,*}

^a *INRS- Énergie, Matériaux, Télécommunications, Varennes, Québec, J3X 1S2, Canada*

^b *Université de Lyon, INSA-Lyon, MATEIS, CNRS UMR5510, F-69621 Villeurbanne, France*

^c *Univ. Grenoble Alpes, Univ. Savoie Mont Blanc, CNRS, Grenoble INP, LEPMI, 38000 Grenoble, France*

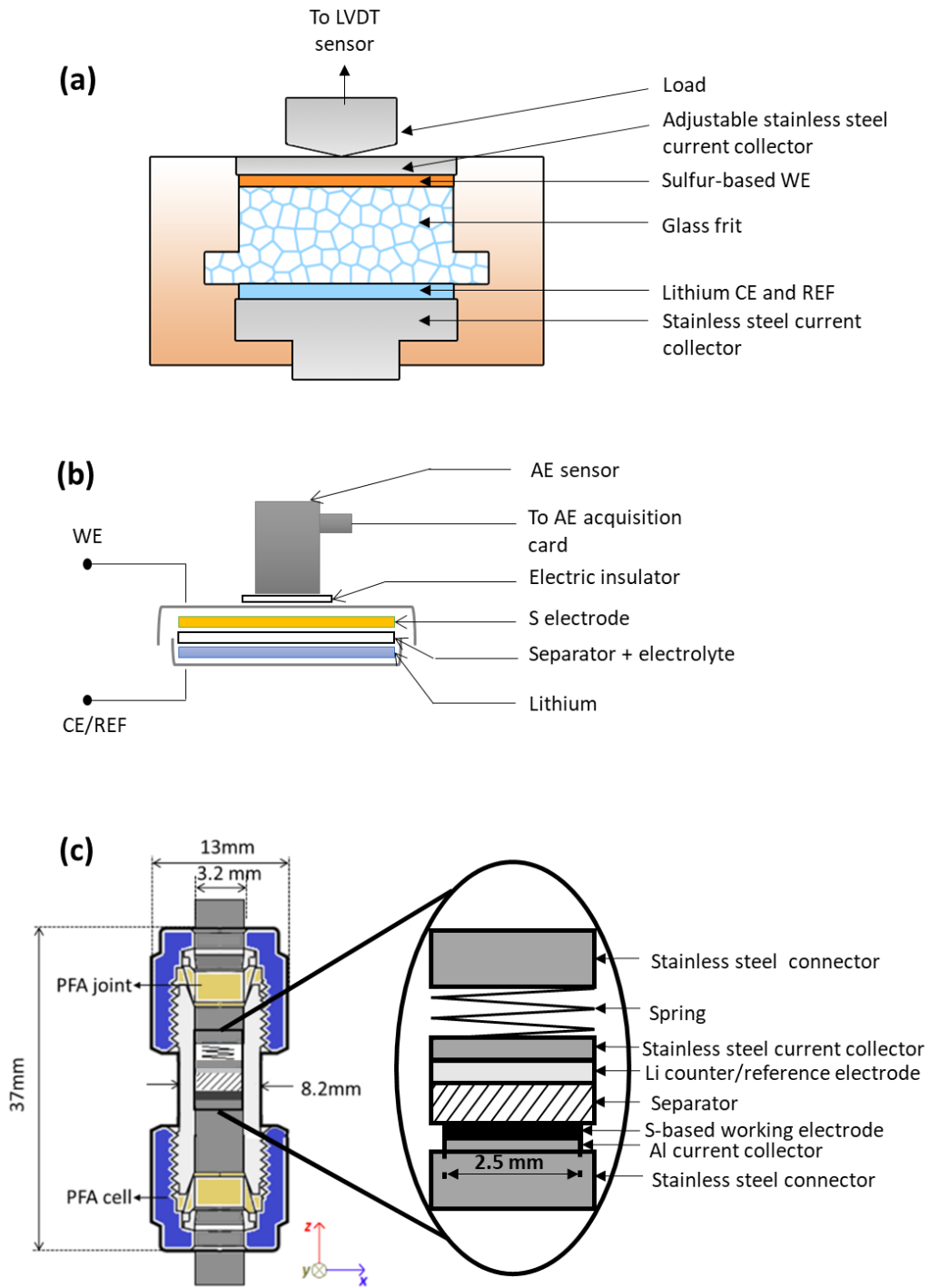


Figure S1. Schematics of (a) the dilatometry setup, (b) the acoustic emission setup and (c) the XRCT electrochemical cell

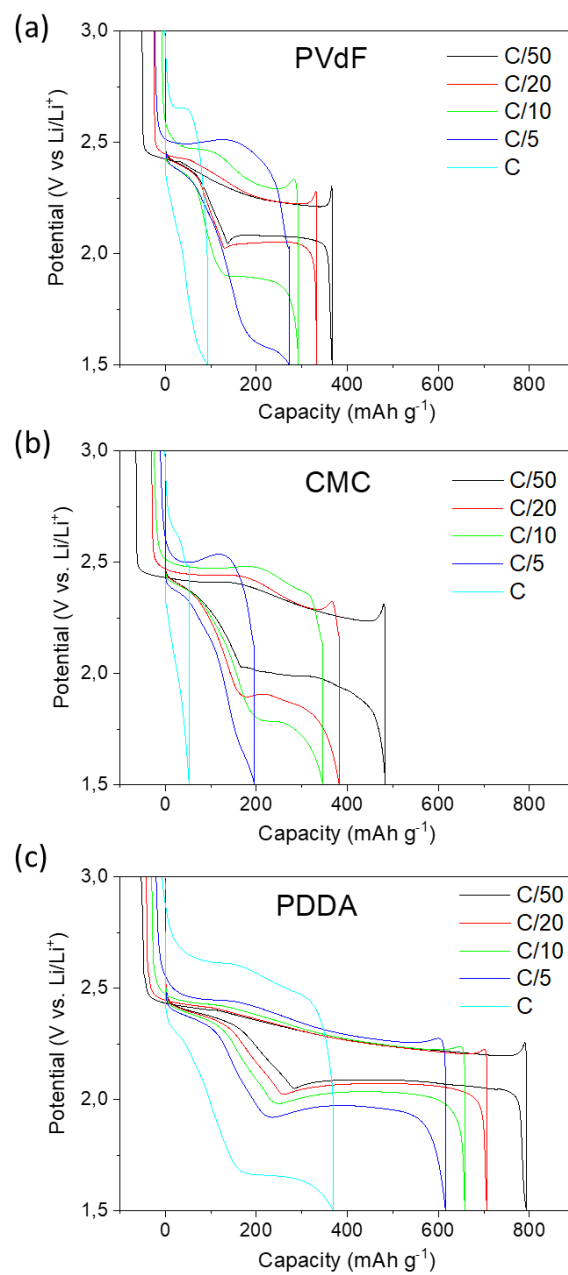


Figure S2. Voltage profiles at C/50, C/20, C/10, C/5 and 1C of (a) PVdF, (b) CMC and (c) PDDA electrodes.

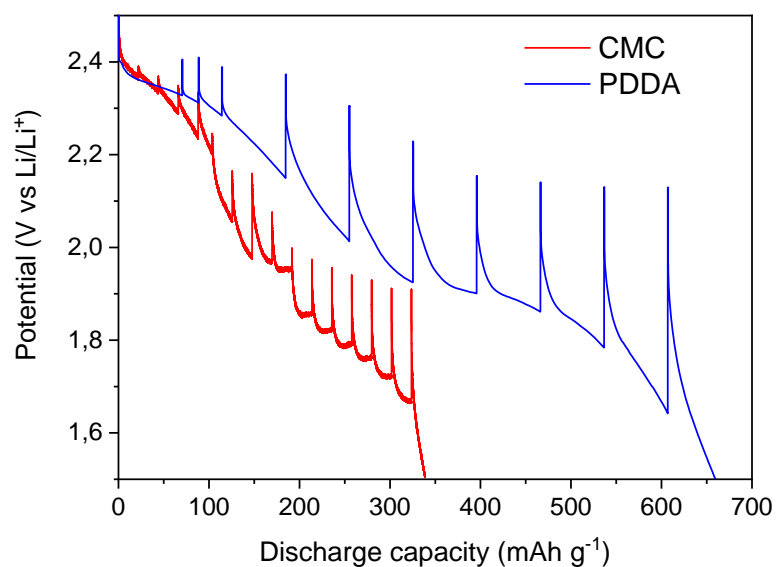


Figure S3. Voltage profiles of CMC and PDDA electrodes during their 1st discharge at C/20 in synchrotron XRCT cell. The potential jumps correspond to the XRCT acquisition steps during which the cell was let in open circuit. These OCP periods are here deleted for clarity.