## **Supplementary Information**

## Aqueous polysulfide redox flow battery with semi-fluorinated cation exchange membrane

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Figure 1. (a) Schematic of the employed two-component cell and (b) Digital photograph of the two-component cell.



Figure S2. (a) Schematic of the polysulfide-ferricyanide redox flow battery and (b) Digital photograph of the assembled polysulfide-ferricyanide redox flow battery



Figure S3. Universal testing machine (UTM) analysis of Nafion-117.