



Figure The swelling structure of Aquivion polymer at a hydration level of (a) $\lambda=3$ (b) $\lambda=6$ (c) $\lambda=9$, and (d) $\lambda=14$ (■C, ■F, ■O (between C atoms in side chain), ■S, ■O (SO_3^-), ■H(H_3O^+), ■O(H_2O), ■H(H_2O)).

The results of this paper can provide a mechanism explanation for swelling and mechanical behavior of PFSA polymer membranes