Electronic Supplementary Information

Nanoporous Two-Dimensional MoS_2 Membrane for Fast Saline Solution Purification

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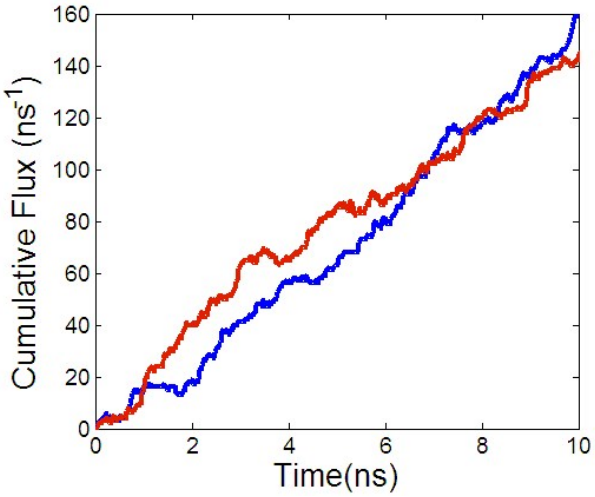

Figure S1. Cumulative water flux through the MoS_2 membrane with both pressure ways of piston (red) and acceleration (blue). As show in the Figure, effect of applying pressure is slight.

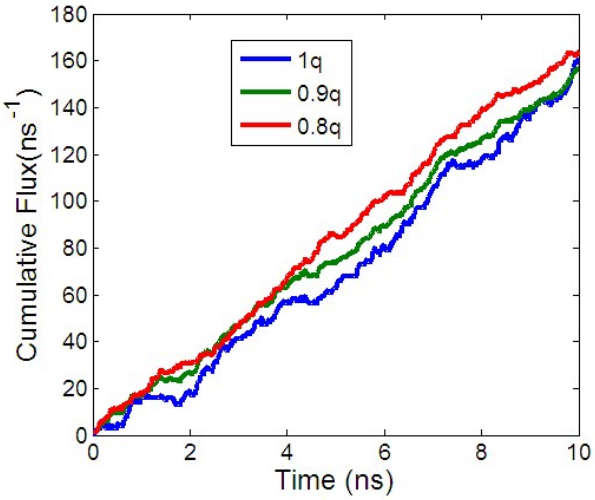

Figure S2. Cumulative water flux through the MoS_2 membrane in different charge densities of edge atoms. Due to the pore, charge density of edge atoms may be reduced.[S1] Charge densities of edge atoms with 1q, 0.9q, and 0.8q are shown in Figure. We found that the charge effect is a slight.

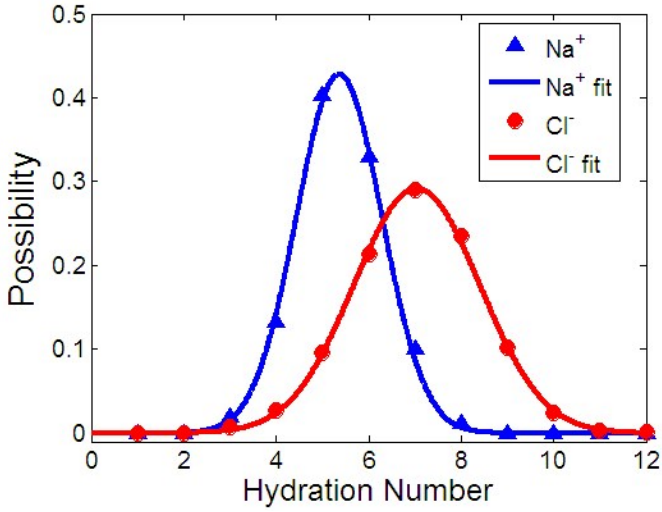

Figure S3. The possible distribution of hydration numbers for Na^+ (blue triangle) and Cl^- (red circle) in the bulk. Solid lines of Na^+ (blue) and Cl^- (red) are fitted by Gaussian probability function, respectively. The average coordination numbers of Na^+ and Cl^- are 5.2 and 7.1, which is consist with data from X-ray diffraction and simulations.[S2-S7]

References

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