

Description of Additional Supplementary Files

File Name: Supplementary Movie 1

Description: This movie shows the dynamics of urea molecules passing through the channel of urea transporter, which is in conjunction with Fig. 4j. In the first step, the urea molecules are captured and then brought into the So region by the rotation of the side chain of Q231^{Pb}. In the second step, the flexibility of the side chains of Q231^{Pb} and hydrogen bond transfer mediated by the side chain of T338^{5b} pull the urea molecules into the Sm region. In the third step, the movement of the T176^{5a} side chain may transfer the urea molecules from the Sm region to the Si region and then the urea may then move downward to form a hydrogen-bond with the side chain of Q67^{Pa}. Finally, the urea bound to the Si region is released into the cytoplasm, thus completing the transport of urea from the extracellular to the intracellular space.