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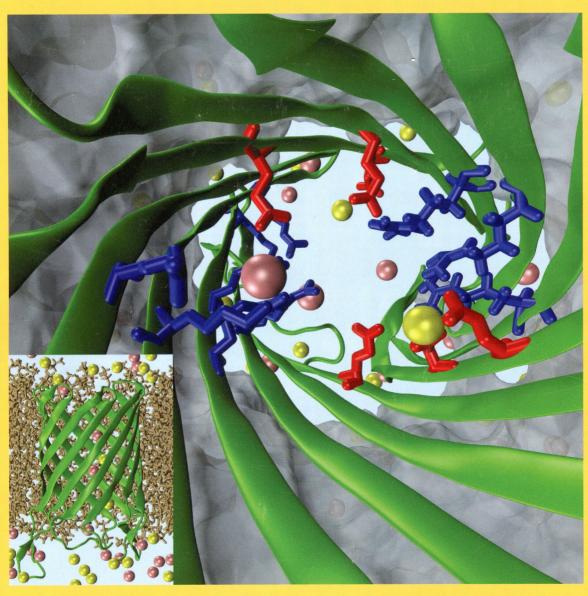
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Atomic Details of Ion Transport through NanC Revealed by Molecular Dynamics Simulations (see page 5A)

BIOPHYSICAL CHEMISTRY, BIOMATERIALS, LIQUIDS, AND SOFT MATTER



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ON THE COVER: Atomic details of ion transport through NanC revealed by molecular dynamics simulations. Ion transport through the N-acetylneuraminic acid-inducible channel (NanC) is studied using molecular dynamics simulations. Applied-field simulations recover the asymmetric conductance property and the anion selectivity in agreement with experiments. The particular distribution of charged residues at the inner channel walls leads to a faster permeation of Cl ions compared with K ions, resulting in the anion selectivity of NanC. In addition, the channel can be engineered by mutations, leading to enhanced asymmetric conductances and anion selectivities. See page 15966.

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