

Abstract Submitted
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Computer Simulation Studies of Gramicidin Channel¹ HYUN-DEOK SONG, THOMAS BECK, University of Cincinnati — Ion channels are large membrane proteins, and their function is to facilitate the passage of ions across biological membranes. Recently, Dr. John Cuppoletti's group at UC showed that the gramicidin channel could function at high temperatures (360 – 390K) with significant currents. This finding may have large implications for fuel cell technology. In this project, we will examine the experimental system by computer simulation. We will investigate how the temperature affects the current and differences in magnitude of the currents between two forms of Gramicidin, A and D. This research will help to elucidate the underlying molecular mechanism in this promising new technology.

¹NSF

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