

Excimer formation dynamics in lipid bilayers

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Abstract

Excimer formation of pyrene conjugated phospholipid molecules is sensitive to self-diffusion dynamics in lipid bilayers. Measures of the diffusion coefficient D based on this phenomenon have been proposed as early as 1974 (Galla, Sackmann). Using coarse-grained lipids (Martini) molecular dynamics simulation, we revisit these results and attempt to improve the determination of the diffusion coefficient D .