Abstract Submitted
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Analytical study of cooperative sequential adsorption models on Cayley trees and their applications to drug encapsulation of nanoparticles ANDREW SEREDINSKI, VINCENT KIM, BRIAN SIMPSON, WILLIAM BANKS, IRINA MAZILU, DAN MAZILU, Washington and Lee University — We present a class of cooperative sequential adsorption models on a Cayley tree with constant and variable attachment rates and their possible applications for drug encapsulation of nanoparticles. Using the empty interval method, and generalizing results known from reaction–diffusion processes on Cayley trees, we calculate a variety of quantities such as time-dependent surface coverage and time-dependent probabilities of certain particle configurations.

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