

# Electrostatic interactions play essential roles in tubulin-tubulin polymerization of microtubules

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Movies:

Movie1: Simulation of  $\alpha/\alpha$  tubulin complex (10ns)

Movie2: Simulation of  $\beta/\beta$  tubulin complex (10ns)

Movie3: Simulation of  $\alpha/\beta$  tubulin complex (10ns)

Movie4: Simulation of  $\beta/\alpha$  tubulin complex (10ns)