

Abstract Submitted
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Stability of helical Janus clusters CONNOR L. ECK, Northwestern University, JONATHAN K. WHITMER, University of Wisconsin–Madison, QIAN CHEN, STEVE GRANICK, University of Illinois at Urbana–Champaign, ERIK LUIJTEN, Northwestern University — Recent experimental and computational work has elucidated the importance of kinetic pathways in the formation of helical structures by hydrophobic-charged Janus particles.¹ Motivated by these findings, we perform free-energy calculations to investigate the equilibrium structure and relative stability of helical aggregates as a function of cluster size and Janus balance. These results simultaneously aid in the interpretation of experimental observations and in the design of building blocks for specific structures.

¹Q. Chen, J.K. Whitmer, *et al.*, *Science* **331**, 199 (2011).

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