

Abstract Submitted  
for the MAR14 Meeting of  
The American Physical Society

**Study of cluster formation in a quasi-square well model of Janus ellipsoids**<sup>1</sup> DONOVAN RUTH, JEFFREY RICKMAN, JAMES GUNTON, Lehigh University, WEI LI, University of California Santa Barbara — We investigate the effect of geometry and range of attractive interaction on the self-assembly of Janus particles. In particular, we consider Janus spheroids with an aspect ratio of 0.6 and a quasi-square well model with a short range attractive interaction of 0.2 sigma where sigma is the characteristic length of the spheroid. We find that below a certain transition temperature the system forms orientationally ordered micelles and vesicles, with a cluster distribution qualitatively similar to that found in an earlier study of Janus spheres. (Phys. Chem. Chem. Phys. (2010) vol 12, 11869-11877, F. Sciortino, A. Giacometti and G. Pastore) Finally we discuss the implications of our work for encapsulation by self-assembly.

<sup>1</sup>Acknowledgement: This work was supported by a grant from the Mathers Foundation.

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Date submitted: 15 Nov 2013

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