**Supplementary Material**

**Sheet-like assemblies of spherical particles with point-symmetrical patches**

Ethayaraja Mani,1,¶\* Eduardo Sanz,2,† Soumyajit Roy,1,§ Marjolein Dijkstra,2 Jan Groenewold,1 and Willem K. Kegel1\*

1 *Van’ t Hoff Laboratory for Physical and Colloid Chemistry, Debye Institute, Utrecht University, Padualaan 8, 3584 CH Utrecht, The Netherlands.*

2 *Soft Condensed Matter Group, Debye Institute, Utrecht University, Princetonplein 5, 3584 CC Utrecht, The Netherlands.*

¶ Present address: *Department of Chemical Engineering, Indian Institute of Technology Madras, Chennai 600036, India.*

† Present address: *Departamento de Quimica Fisica I, Facultad de Ciencias Quimicas, Universidad Complutense, 28040 Madrid, Spain.*

§ Present address: *Chemical Sciences,* *Indian Institute of Science Education and Research, Kolkata 700064, India.*

Sheet

Fluid

SM FIG. 1. Phase diagram of POM showing fluid to sheet transition in the - δ parameters space at a density of 0.1.  is the non-dimensional temperature defined as , where *k*B is the Boltzmann constant and T is the temperature, *ε* is the strength of attraction as defined in the potential (Eq. 1 in the article), and δ is the parameter that defines the size of the patch, as defined in Eq. 2 in the article.



Fluid

Sheet

SM FIG. 2. Phase diagram of apoferritin showing fluid to sheet transition in the - δ parameters space at a density of 0.06. and δ are defined as in Fig. 1.