Application of Positron Annihilation Lifetime Spectroscopy (PALS) to Study the Nanostructure in Amphiphile Self-Assembly Materials: Phytantriol Cubosomes and Hexosomes

Aurelia W. Dong,1,2 Celesta Fong,2 Lynne J. Waddington,3 Anita J. Hill,1 Ben J Boyd1,5 * and Calum J. Drummond2,6 *

1 Drug Delivery, Disposition and Dynamics, Monash Institute of Pharmaceutical Sciences, Monash University (Parkville Campus), 381 Royal Parade, Parkville, VIC 3052, Australia
2 CSIRO Manufacturing Flagship, 343 Royal Parade, Parkville, VIC 3052, Australia
3 CSIRO Manufacturing Flagship, Private Bag 33, Clayton, VIC 3169, Australia
4 CSIRO Manufacturing, Productivity and Services, PO Box 312, Clayton, VIC 3169, Australia
5 ARC Centre of Excellence in Convergent Bio-Nano Science and Technology, Monash Institute of Pharmaceutical Sciences, Monash University (Parkville Campus), 381 Royal Parade, Parkville, VIC 3052, Australia
6 School of Applied Sciences, College of Science Engineering and Health, GPO Box 2476, RMIT University, Melbourne, VIC 3001, Australia

Corresponding Authors: calum.drummond@rmit.edu.au; ben.boyd@monash.edu

SUPPLEMENTARY INFORMATION

Figure S1 Partial phase diagram of phytantriol -water system (re-drawn from Dong et al.1)
Figure S2: Waterfall plots of SAXS profiles with increasing temperature for dispersed phytantriol systems with 0, 1, 3 and 10% w/w vitamin E acetate.

REFERENCE