Supplemental Information to:

High-Throughput Ellipsometric Characterization of Vapor-Deposited Indomethacin Glasses

Shakeel S. Dalal, a Zahra Fakhraai, M.D. Edigera*

Aging Rate of Indomethacin:

To determine the aging rate of an ordinary glass of indomethacin, a 600 nm film was heated to 325 K in order to prepare the equilibrium supercooled liquid. Using the temperature control stage described in the text, the samples were cooled at 1 K/min to 293 K and then held isothermally. The thickness of the film was measured as a function of the time elapsed after reaching 293 K. Figure S1 shows the change in film thickness with time.

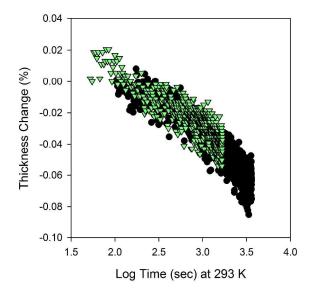


Figure S1. The aging rate of an ordinary glass of indomethacin cooled at 1 K/min and measured at 293 K. The percent change in the film thickness is reported with the amount of time after the sample reached the aging temperature. The two different symbols are independently prepared samples aged for different periods of time.

Department of Chemistry, University of Wisconsin – Madison, Madison, WI 53706
Department of Chemistry, University of Pennsylvania, Philadelphia, PA 19104

^{*} Corresponding Author. Contact at ediger@chem.wisc.edu

Index of Refraction of Vapor-Deposited Indomethacin Glasses:

The index of refraction in the plane of the substrate (n_{xy}) and out of the substrate (n_z) for a representative sample of vapor-deposited indomethacin is shown in Figure S2. The measured values from the temperature gradient sample agrees reasonably with data acquired on isothermal samples.¹

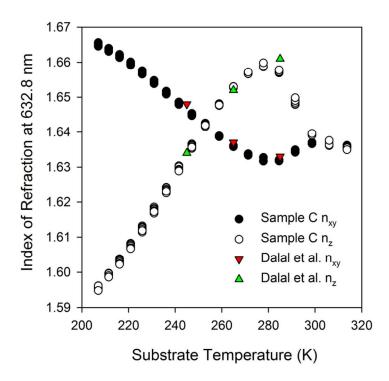


Figure S2. The index of refraction of vapor-deposited indomethacin. A representative sample covering the temperature range of the experiment, Sample C, is shown. At high temperatures the material produced has the same n_{xy} and n_z (optically isotropic), a condition which occurs again at 253 K. At other temperatures n_{xy} and n_z vary independently. For each substrate temperature, 5 independent measurements are shown.

(1) Dalal, S. S.; Ediger, M. D. The Journal of Physical Chemistry Letters 2012, 3, 1229–1233.