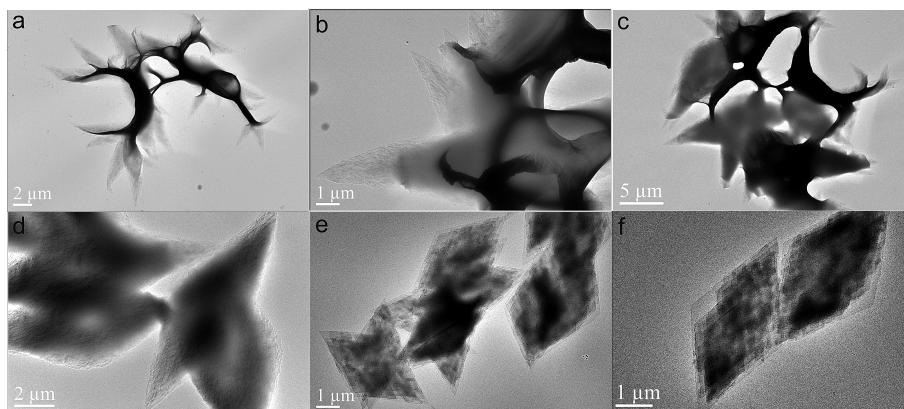


**Thickening-induced Faceting Habit Change in Solution-grown Poly(L-lactic acid) Crystals**

Jrjeng Ruan,<sup>\*,†</sup> Hsing-Yuan Huang,<sup>†</sup> Yi-Fang Huang,<sup>†</sup> Chian Lin,<sup>†</sup> Annette Thierry,<sup>‡</sup> Bernard Lotz,<sup>‡</sup> and An-Chung Su<sup>§</sup>



**Figure SI.** Quiescent development of lenticular crystals in 0.1% solutions of mixed xylene as examined via TEM. In the absence of the short-term (20 s) stirring, a number of aggregation precursors emerged after incubation at 90 °C for (a) 4 to (b) 6 hr, with clearly discernible protrusions of lenticular tips. These aggregates became better developed in the lenticular shape after incubation at 90 °C for (c) 8 to (d) 10 hr. At this stage, the number of individual lenticular domains is limited because the complete separation from neighboring domains takes longer time. Extended incubation at 90 °C up to 18 hr resulted in (e) few lozenge crystals with sharp obtuse apices. This morphological feature is more clearly demonstrated in (f); however, most of the individual crystalline domains remained lenticular shape. These observations indicate that, in the absence of the stirring action, the lenticular-to-lozenge transformation takes place at 90°C. The short-term stirring acts to enhance the population of individual lenticular domains, which transfer to truncated lozenge at 90°C instead. A different reorganization path can be created by stirring action