**Morphological Studies of Crystallization in Thin Films o -----Origf PEO/PMMA Blends**

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Morphological development during crystallization of thin films of poly(ethylene oxide) (PEO) / poly(methyl methacrylainal Messate) (PMMA) blends has been reported. Studies focused on the effects of the blege-----Frond composition, PMMA molecular weight, film thickness, and crystallizam: Linda Mtion temperature on the observed crystal morphology. As the blend composition was varied from 90 to 30 wt% PEO, the crystal morphology vennitt [maaried from spherulites to needles and dendrites. Variation of the crystilto:felixallization temperature and PMMA molecular weight resulted in similar changes in morphology. A morphological map demonstrating the roles of the experimental controls on the observed crystal morphology has been developed.com@veriz. This map on.net] Sewas used as a tool for more detailed studies of the observed morphologies and morphological transitions. The dendritic region of the map (~ 30 – 40 wt% PEO) was studied in detail, focusing on sidebranch formation and coarsening. In-situnt: Monday observations of morphological transitions, such as , March 14dendrite/DBM and D, 2005 11:BM/needle transitions, were also reported. The results of this work 08 PMTo: chave helped to define new directions for the study of crystal morphologies, especially in the areas of spherulite formation and dendrommentsSubitic growth.

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