Contribution ID: **78** Type: **Oral presentations**

The role of mesomorphic phases in the ordering of polymers

Wednesday, 17 June 2015 12:20 (20 minutes)

In recent years considerable attention has been devoted to the study of transient states (mesophases) in the ordering of polymers on the route toward a more stable (usually crystalline) structure. Mesomorphic states or mesophases are characterized by a partial and intermediate order between the amorphous disordered isotropic state and the three-dimensionally organized crystalline structure. Metastable phases are usually kinetically faster and they can display a favorable free energy when taking into account their increased surface free energy [1] in the case of very small sizes.
Besides the conditions for obtaining mesophases, another important feature is to determine their role in the ordering of the polymers, i.e., if those phases are competing with the more stable crystal structure or they are acting as precursors of crystallization.
Two kinds of polymeric systems have been analyzed: a) copolymers of isotactic polypropylene, iPP, and b) liquid crystalline polymers.

Primary author: Prof. PÉREZ, Ernesto (Instituto de Ciencia y Tecnología de Polímeros (ICTP-CSIC))

Presenter: Prof. PÉREZ, Ernesto (Instituto de Ciencia y Tecnología de Polímeros (ICTP-CSIC))

Session Classification: Session 3 - VII AUSE Congress 2015

Track Classification: VII AUSE Congress