

Title: Measurement of the intrinsic viscosity of polyolefins and PET by IVA

Main Author:

Name: Olivier Boyron
Organization: CNRS
Country: France

Co-Authors:

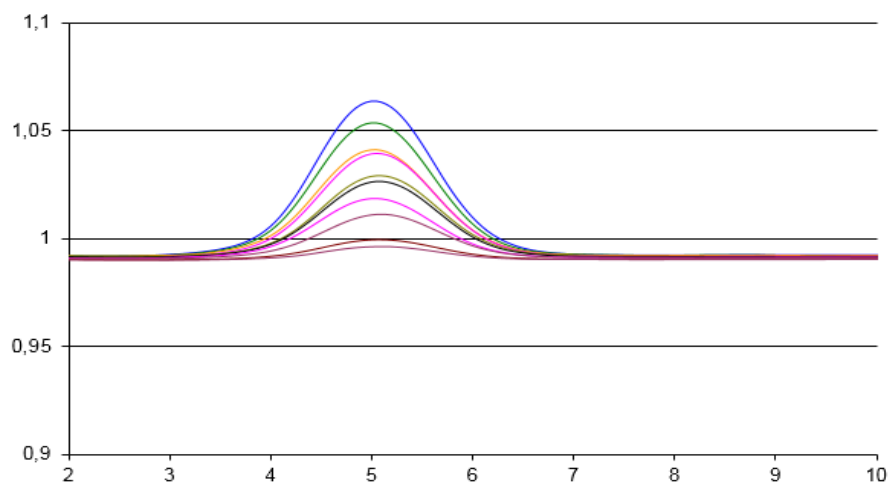
Co-author 1: Alberto Ortin
Organization: PolymerChar
Country: Spain
Co-author 2: Pilar del Hierro
Organization: PolymerChar
Country: Spain
Co-author 3: Manel Taam
Organization: CNRS
Country: France
Co-author 4: Olivier Boulan
Organization: CNRS
Country: France
Co-author 5: Thomas Soullié
Organization: CNRS
Country: France
Co-author 6:
Organization:
Country:

References:

Reference 1: Macromol. Symp.2022,406, 2200018
Reference 2: ISO 1628:2010, Determination of viscosity of polymers in dilute so-lution using capillary viscometers.
Reference 3: ASTM D5225 Standard Test Method for Measuring Solution Viscosityof Polymers with a Differential Viscometer.
Reference 4:
Reference 5:
Reference 6:
Reference 7:
Reference 8:
Reference 9:
Reference 10:
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Abstract:

The development of an automated instrument by PolymerChar is a significant advance in the determination of polymer viscosity in solution. This instrument allows for efficient and accurate measurement of the intrinsic viscosity of polymers from the relative viscosity. In addition to providing valuable information on the physical properties of polymers, the method allows the estimation of the molar mass of polymers.

This information is important for both research laboratories and manufacturing applications, as it can be used to optimize polymer production processes and to develop new and improved polymers.

The use of high temperatures and organic solvents for the dissolution and analysis of polymers, such as polyolefins and PET, presents particular challenges for viscosity measurements. This work presents a comparison of the results of measurements on these polymers with the IVA system and the traditional standard method showing the reliability of the instrument.