

**Title:** Comprehensive analysis of Low-Density Polyethylene using analytical methods

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Reference 6:

Reference 7:

Reference 8:

Reference 9:

Reference 10:

Reference 11:

Reference 12:

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**Images:**

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**Abstract:**

LDPE materials, which were produced with different reactor technologies (single autoclave reactor (sample for extrusion coating, EC01, sample used for blow molding, BM01, sample intended for film molding, FM01), tube tail reactor (EC03), and dual autoclave reactor (EC05)) were characterized with different analytical techniques.

The distribution of molar mass (MMD) and long chain branching (LCB) was evaluated with SEC and asymmetric flow field flow fractionation (AF4), both coupled with a multiangle laser light scattering detector (MALLS). High-temperature HPLC was used to evaluate the distribution of short chain branching (SCB). Furthermore, a separation according to molar mass was coupled with a separation according to SCB in the form of high-temperature 2D-LC.

Detailed findings will be revealed in the poster.