

Part III: Polymers

July 8th, 2021

Keeping You Connected • Keeping You Informed

HORIBA Near Infrared spectroscopic solutions for plastic recycling: A necessity for environment & circular economy

Christelle Mégier & Anthony Boulanger
HORIBA & Greentropsim, France
christelle.megier@horiba.com,
anthony.boulanger@greentropism.com

Abstract

This webinar will introduce the plastic recycling markets requirements and challenges related to new packaging materials and how some new technologies based on spectroscopic analysis, or with Artificial intelligence, can help to sort better, faster, and contribute in a healthier environment.

The demand of plastic recycling is increasing drastically since few years as only a tiny proportion of them are collected and then recycled. Nowadays, plastics that can be recycled are issued of different polymers type such as PE, PVC, PET...

Sorting machine are now using technologies based on NIR spectroscopy to sort accurately plastic with a high speed and accuracy thanks to unique plastic material fingerprint in such a spectral range.

With constant innovation in packaging, the variety of materials used increase strongly and make arising materials with a large variety of colors up to black colors.

Such black colored plastics are creating a real challenge for spectroscopy based analysis as they absorb most of the signal..

Some new technologies including Hyperspectral imaging and Artificial intelligence can help to sort better, faster such challenging new materials.

During this webinar, HORIBA and GreenTropism company will introduce some new technologies and smart data treatment solutions that can be considered for plastic recycling applications and how they could contribute in a “greener” environment.