

Lab report

Analysis and identification of Plastics by Soxhlet extraction and ATR-IR



Principle of Sustainable Environmental Systems

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1 Introduction

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1.1 Soxhlet extraction

... (ATRFTIR)

1.2 Attenuated Total Reflectance-Fourier Transform Infrared Spectroscopy (ATR-IR)

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2 Materials and Methods

2.1 Material for Soxhlet extraction method

- Soxhlet extractor body
- Glass reflux condenser
- Round-bottom flask (RBF)
- Hot plate with heating controller
- Support and clamps
- Cooling water supply and tubing (secure with clamps)
- Polymer sample impregnated with rhodamine (record mass)
- Solvents

2.2 Material for ATR-IR

- Plastic samples
- Agilent Technologies Cary 630 FTIR Spectrometer

2.3 Procedure

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