

Environmental relevance

i The use of agricultural plastic covers has increased dramatically.

? **To what extent do such plastic covers release plastic debris to soil?**

Chapter 2

Develop

Feasibility study

i Mass-based analytical methods for the polymer quantification in soil are still missing.

? **How feasible are thermoanalytical techniques (TGA/MS) for polymer quantification?**

Chapter 3

Method validation

i Additional chromatographic separation is necessary to analyze polymer mixtures.

? **Could solvent-based Py-GC/MS perform better than TGA/MS?**

Chapter 4

Field application

! Combine density separation with solvent-based Py-GC/MS for a first screening of agricultural fields covered with plastic films.

Chapter 6

Method review

i Sample preparation methods for soil are still imperfect.

? **Which should be used? What is important to consider?**

Chapter 5

(Re-)
Evaluate

Refine

Literature review

Original research