



INGEDE Method 1 and INGEDE Method 2 revised

INGEDE-Methode 1 und INGEDE-Methode 2 überarbeitet

The revisions of INGEDE Methods 1 and 2 are now completed. The following major changes have been made in INGEDE Method 1:

- The filter paper to prepare filter pads is now prescribed
- The vacuum device of the Büchner funnel has to allow a pressure difference ≥ 60 kPa (in the last version no special pressure difference was prescribed)
- In case of a coloured membrane filtrate, the membrane filter is to refuse and the filtration has to be repeated with a dosage of retention aid

A major change in INGEDE Method 2 is that the measurement with light source C/2° with edge filter at 420 nm and D65/10° with edge filter at 420 nm has been reduced to only C/2° with edge filter because both light sources produce almost identical results. Other changes are more or less editorial changes or changes which became necessary by the revision of INGEDE Method 1.

Both methods are valid as of today.

Die Überarbeitung der INGEDE-Methoden 1 und 2 ist nun abgeschlossen. Folgendes wurde in der INGEDE-Methode 1 geändert:

- Das Filterpapier zur Erstellung von Nutschenblättern ist jetzt vorgeschrieben
- Für die Vakuumpumpe des Büchnertrichters ist jetzt eine Druckdifferenz von ≥ 60 kPa vorgeschrieben (in der letzten Version wurde noch keine Druckdifferenz vorgeschrieben)
- Im Falle eines farbigen Membranfiltrats wird der Membranfilter verworfen und die Filtration mit Dosierung eines Retentionsmittels wiederholt

Als wesentliche Änderung in der INGEDE-Methode 2 wurde die Messung mit der Lichtquelle C/2° mit Kantenfilter bei 420 nm und D65/10° mit Kantenfilter bei 420 nm auf die Lichtart C/2° mit Kantenfilter reduziert, da beide Lichtarten nahezu identische Ergebnisse liefern. Weitere Änderungen sind mehr oder weniger redaktionell oder Änderungen, die durch die Überarbeitung der INGEDE-Methode 1 erforderlich wurden.

Beide Methoden sind mit dem heutigen Tag gültig.

Christian Trieb

CALENDAR OF EVENTS

19 Jan 2015
INGEDE Project 144 14
“DPDA & INGEDE Ink Study”
 Telco or meeting in
 Munich, Germany

11 Feb 2015
INGEDE Symposium
 Munich, Germany

12 Feb 2015
INGEDE Member Symposium
 Munich, Germany

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New INGEDE Project
“FT-IR Spectroscopy”

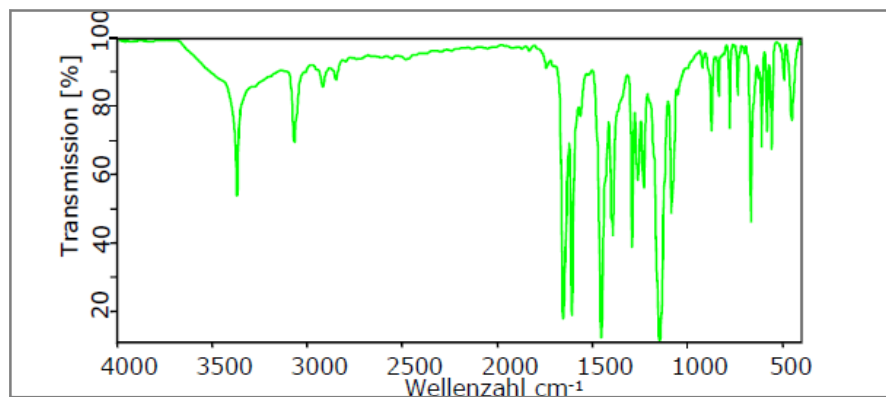
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The INGEDE office team wishes a
Merry Christmas
 and a prosperous and happy New Year!

New INGEDE project dealing with entrance quality control of Paper for Recycling by using FT-IR spectroscopy

As INGEDE has already announced in August 2014 the new INGEDE research project 145 14 "Entrance quality control of recovered paper regarding deinkability of printed products by FT-IR spectroscopy" (short title "FT-IR spectroscopy") has started. The project kick-off meeting was held on 6 November, 2014 at Universität Darmstadt, Chair of Paper Technology and Mechanical Process Engineering (PMV). Objective of the research work is to create a database which contains FT-IR spectra of all kinds of printed graphic paper products as well as results of standard deinking trials (INGEDE Method 11) of the same paper samples. By linking the FT-IR analysis with the deinking results, the database will be built up in a way that unknown print products can be allocated to not, poor or good deinkable print products. Ideally the spectroscopic measured paper sample can be classified related to its deinkability



Typical FT-IR Spectrum

respectively to possible problems to be expected.

In the first work package PMV currently performs measurements of existing reference samples of which at least the printing technology is communicated and of which the deinking results are available (for example from INGEDE recyclability investigations 2012, 2013, 2014 or from the EU

EcoPaperLoop project. INGEDE members are invited to send printed paper samples which may create deinking problems with information about the printing technology (and deinking results if the information is available). As many data as possible will be collected and compiled with deinking tests and FT-IR measurements.

The next step in the first months of 2015 will be to line up print products from print shops with information about printing inks and printing technology for spectroscopic analysis and deinking tests. In this connection special printing processes and varnishes should be considered from which deinking problems have to be expected. All INGEDE members are asked to support this project by using their contacts to printing shops and finishing companies. Please help us by sending samples to be investigated. An appropriate questionnaire for the samples to be collected will be prepared by PMV.

The compiled data base (spectroscopic and deinking related) will be available for all INGEDE members after the project is finished. For further information please contact Dr. Hans-Joachim Putz or Antje Kersten (putz@papier.tu-darmstadt.de) or (kersten@papier.tu-darmstadt.de) at PMV.

Antje Kersten, PMV Darmstadt



Platinum-ATR-Measuring device with ATR-Diamond Module, Manufacturer: Bruker Optik GmbH, Ettlingen