TeraLyzer

THz-TDS Data Evaluation Software for Sub-100 µm and Multilayer Samples

MenloSystems
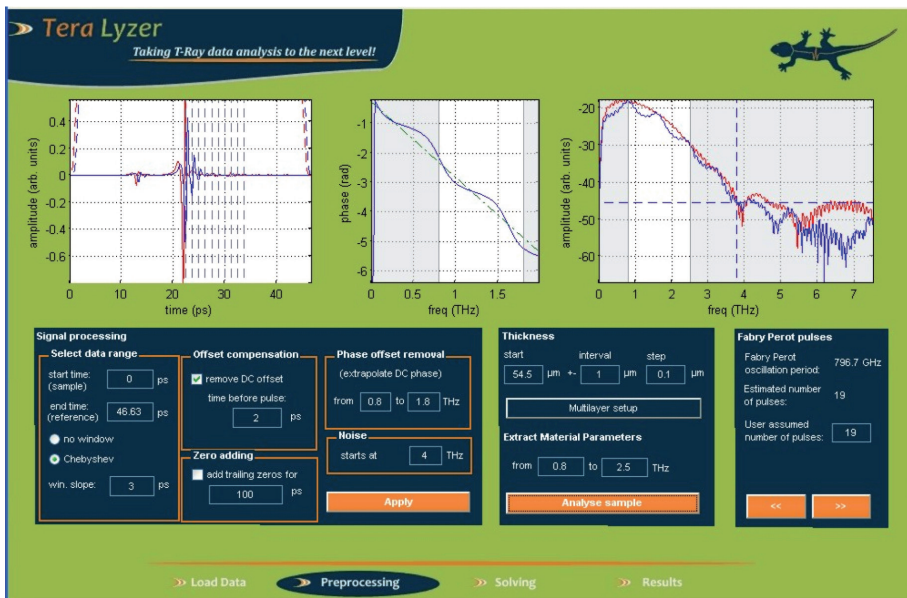
TeraLyzer is a first-of-its-kind software solution for material parameter extraction from terahertz time domain spectroscopy data in transmission geometry. It delivers highly precise information of the complex material parameters of a sample (n, α, κ, ε', ε''), including error bars and the estimated sample thickness.

One of the strong features of the TeraLyzer software is that thin samples in the sub-100 µm regime become accessible to your research without the need for differential measuring setups. Moreover, analysis of multilayer systems promotes a whole new range of experiments.
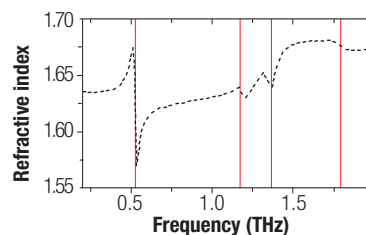
For a free TeraLyzer trial version contact our expert.

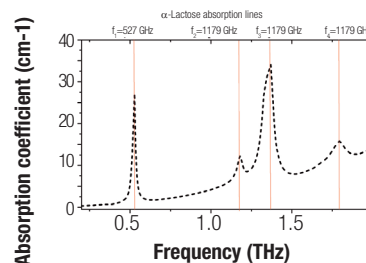## CASE STUDY α-lactose / polypropelene compound

Refractive index:

Absorption spectrum:

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SPECIFICATIONS

Measurable Sample Thickness	<100 μm, up to several mm, multilayer empowerment
Multi-step Procedure	data import (transmission measurement)
	data preprocessing (windowing, offset and phase correction)
	thickness extraction
	extraction of $n, \alpha, \kappa, \varepsilon'$ and ε''
	statistical error propagation
Thickness Extraction Algorithms	considering Fabry-Perot reflections (Quasi Space or Total Variation method)

SETUP REQUIREMENTS

Setup Configuration	flexible import of Menlo Systems TDS data or custom data import

SYSTEM REQUIREMENTS

Processor	Intel Pentium 4 or AMD Athlon 64 processor
Systems Software	Microsoft Windows XP
RAM	1 GB
Display	1024x768 display with grafic card
Data import	THz time-domain measurement data (ASCII)
Data export	.csv and .mat
Internet Connection	required for license validation

ORDERING INFORMATION

Product Code		
TeraLyzer	Trial Version	Please request

MenloSystems

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