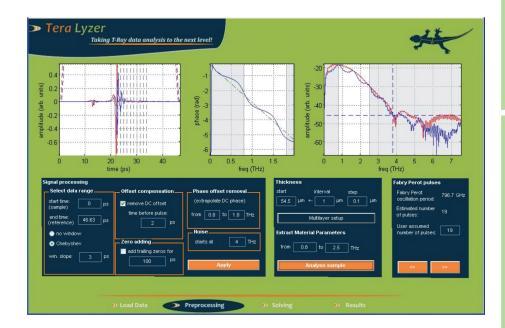
TeraLyzer

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



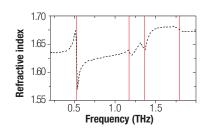
TeraLyzer is a first-of-its-kind software solution for material parameter extraction from terahertz time domain spectroscopy data in transmission geometry. It delivers highly precise information of the complex material parameters of a sample $(n, \alpha, \kappa, \epsilon', \epsilon'')$, including error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

One of the strong features of the TeraLyzer software is that thin samples in the sub-100 μ m 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.

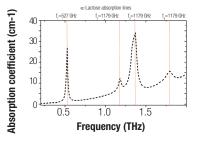
For a free TeraLyzer trial version contact our expert.

CASE STUDY α -lactose / polypropelene compound

Refractive index:



Absorption spectrum:



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APPLICATIONS

- Time-resolved THz Spectroscopy in Transmission Geometry
- Investigation of Sub-100 µm Samples, up to Several mm Thickness
- Characterization of unknown Layers in a Multilayer System
- Inaccessible Samples, eg. in a Cryostate

FEATURES

- Broadband Application
- Sample Thickness Extraction
- Optical Parameter Extraction $(n,\alpha,\kappa,\epsilon')$ and ϵ'')
- Statistical Error Propagation
- Data Import and Preprocessing
- Dynamic Range Correction for Highly Absorbing Samples

OPTIONS

- SINGLE LICENCE
 Single Version
- **GROUP LICENCE**Up to 10 Workstations
- TRIAL VERSION Valid for 28 Days

TeraLyzer



THz-TDS Data Evaluation Software

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 $n,\alpha,\kappa,\epsilon'$ 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
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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		

MenioSystems

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