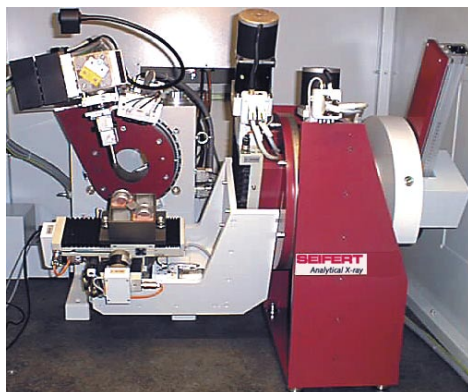
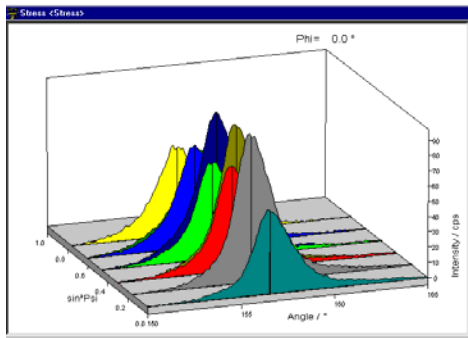


SEIFERT Stress Analyzer



- X-ray diffractometer for automatic inspection with sample changing and positioning in X, Y, Z
- Quick results due to PSD registration and on-line evaluation with
- RAYFLEX analyzing software

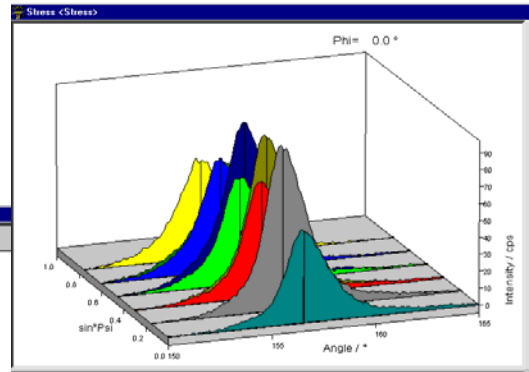
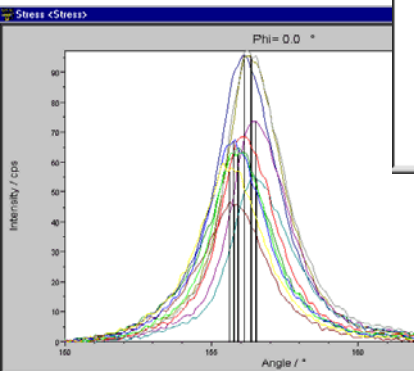
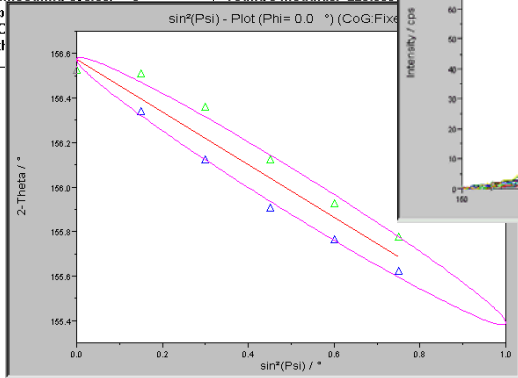


- Designed particularly for engine parts and gear parts in the automotive industry
- Sample weight 15 kg
- Positioning controlled by laser and CCD camera

ANALYZE Option STRESS

Method	Sigma / MPa	Tau / MPa	Phi / °
Fit:Parabola...	390.3	31.4	0.0
CoG:Fixed...	376.3	33.2	0.0
Cross Correlation...	441.8	26.5	0.0

Corrections	Database Reference
absorption: no	Material: iron
polarization: no	Radiation: Cr-Kα ₁
Lorentz: no	Bragg Angle: 156.08
Rachinger: no	Lattice Planes: (2 1 1)
background: Left Base	s ₁ : 1.27000
smoothing cycles: 5	½s ₂ : 5.81000
	Young's modulus: 220.000



Stress Parameters

Corrections | Peaksearch | Methods | Parameters | Materials

Fit

Parabola Num of Points: 15

above Threshold

PseudoVoigt Doublets:

Center of Gravity

	Bottom	Threshold / %	Top	Step
<input checked="" type="radio"/> Simple	80	0	0	0
<input type="radio"/> Mean	0	0	0	0
<input type="radio"/> Sliding	1	1	1	0.1

Cross Correlation

OK Abbrechen Übernehmen Hilfe

Features

- Determination of residual stresses using the sin² ψ method (χ and α possible) with elliptical and linear regression evaluation
- Graphical presentation of measurement data and sin² ψ distribution
- Simultaneous peak shift determination using different methods:
 - Parabola or Pseudo-Voigt fits
 - Simple, mean or sliding centre of gravity
 - Cross-correlation function
- Evaluation based on constants that are drawn from easily extendible materials database
- Determination of stress tensor (assumptions σ₃₃ = 0 or σ₃₃ ≠ 0 possible)
- Automatic evaluation for job lists by way of MACRO language with EXCEL export