

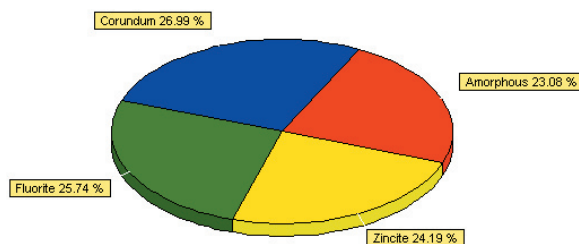
SEIFERT AutoQuan

The award-winning Software

The fastest and safest way to an excellent Quantitative Phase Analysis

Only three steps:

1. Choose diffractometer set-up
2. Select phases from database
3. See the results



AutoQuan is so easy to use that everyone can win his own award

"The winner, Reinhard Kleeberg, University of Mining and Technology, Freiberg, Germany, used an internal standard and a Rietveld based method with the program BGMN/AutoQuan for the primary phase quantification... The second place contestant, Reiner Dohrmann, Federal Institute for Geosciences and Natural Resources, Hannover, Germany also used the AutoQuan program..."

McCarty, D.K. (2002) Quantitative Mineral Analysis of Clay-bearing Mixtures: "The Reynolds Cup" Contest. IUCr CPD Newsletter, 27, 12-16; <http://www.iucr.org/iucr-top/comm/cpd/html/newsletter27.html>



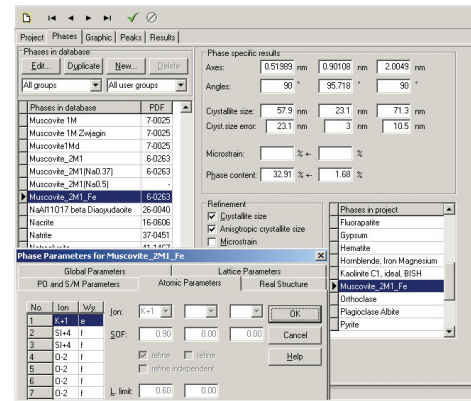
GE imagination at work



AutoQuan - Quantitative Phase Analysis can be an easy task

The philosophy of AutoQuan is to lead the user in the most efficient way to high-reliability, reproducible results with minimal user input and maximum software support. Therefore, AutoQuan

- supports all meaningful experimental set-ups like Bragg-Brentano (fixed and automatic slits), Debye-Scherrer (flat sample and capillary) and grazing incidence.
- includes an extensive database of more than 480 phases, easily expandable by the user. The database contains information on atomic parameters, lattice parameters, preferred orientation, crystallite size and microstrain.
- provides best stability and optimized convergence properties as a result of (physically appropriate) boundaries for each defined parameter.



AutoQuan - Everything you need for Quantitative Phase Analysis

- use of the powerful BGMN[®] algorithms for fully automatic Rietveld refinement
- consideration of the shape of the X-ray focus by tube tails correction
- exact description of line profile for each 2θ value by Monte-Carlo integration of the geometry function (Fundamental Parameters Approach)
- correction of preferred crystallite orientation by spherical harmonics - AutoQuan automatically controls the order of the spherical harmonics to avoid incorrect results
- description of line broadening by the calculation of isotropic/anisotropic crystallite size and microstrain, with predefined limits avoid physically meaningless results
- Brindley correction for microabsorption
- quantification of an amorphous phase content by internal standard method
- calculation of the statistical error for each refined parameter
- batch mode for the analysis of sample series
- support for various experimental data formats, like *.njc, *.raw, *.rd, *.val, *.xpa and ASCII

