

## USAGE OF AN ADVANCED FULLPAT METHOD TO QUANTIFY AMORPHOUS MATERIAL

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The FULLPAT method as developed by Smith et. al. in 1987 and later implemented into an MS Excel sheet by Chipera & Bish (2002) has been known for some time but unfortunately is still not widely used. It can be applied for all kinds of scan comparisons including quantitative analysis with internal or external standards, also covering the determination of one or several amorphous compounds.

The principle is that individual patterns (corrected for absorption and matrix effects) of all the phases in a mixture when correctly scaled can be summed to match the observed pattern and to provide quantification.

Its shortcomings are that it still does not have an easy-to-use interface, furthermore it has a poor calculation performance and the option to account for pattern shifts is not available.

We will demonstrate the implementation and usage of the Full Pattern Auto scale analysis method in X'Pert HighScore plus V2.2, which overcomes all of the drawbacks mentioned above, and thus enables this analytical method to be used by a much larger user group.

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