

Rietveld: Pitfalls for the non-Expert

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It is nearly 40 years since Rietveld developed the idea of whole pattern fitting of powder neutron-diffraction data in order to refine crystal and magnetic structures. Since his original paper, the applicability of his method to various problems in powder diffraction has been greatly extended. By way of introduction to this BCA-IG session on Rietveld Refinement, I will briefly review the method, its development, and its uses. For the unwary or uncritical user, there are many potential pitfalls and a selection of these will be highlighted during the talk.