



## A Journey into Reciprocal Space: A Crystallographer's Perspective (Paperback)

By A.M. Glazer

Morgan Claypool Publishers, United States, 2017. Paperback. Condition: New. Language: English . Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*.The concept of reciprocal space is over 100 years old, and has been of particular use by crystallographers in order to understand the patterns of spots when x-rays are diffracted by crystals. However, it has a much more general use, especially in the physics of the solid state. In order to understand what it is, how to construct it and how to make use of it, it is first necessary to start with the so-called real or direct space and then show how reciprocal space is related to it. Real space describes the objects we see around us, especially with regards to crystals, their physical shapes and symmetries and the arrangements of atoms within: the so-called crystal structure. Reciprocal space on the other hand deals with the crystals as seen through their diffraction images. Indeed, crystallographers are accustomed to working backwards from the diffraction images to the crystal structures, which we call crystal structure solution. In solid state physics, one usually works the other way, starting with reciprocal space to explain various solid-state properties, such as thermal and electrical phenomena. In...



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