



Time-Resolved Structure Determinations in Low-Periodic Systems

By Marcel Petri

Cuvillier Verlag Mrz 2012, 2012. Buch. Condition: Neu. Neuware - Molecular self-assembly has given rise to a multitude of low periodic structures and therefore has attracted considerable interest in science and technology. Knowledge about self-assembly processes is indispensable for soft matter manipulation and the creation of novel nano-structured compounds. During the last decades, nano-technology became an integral part of many technical processes and products encountered in everyday life. It is considered as one of the key technologies [1] to cope with future tasks in health care and environmental protection. In order to image and characterize matter at the nano-scale a multitude of techniques have been developed. Given the fact that conventional far field microscopy is diffraction limited, structures smaller than 200 nm can not be resolved. This restriction can be overcome by using probes with wavelengths which are shorter than visible light. Next to electrons which account for the resolving power of electron microscopes, X-rays and neutrons are employed to gain invaluable insight into the dynamics and composition of matter. In tomographic applications they penetrate the specimen, and magnified sectional images of the object can be created. X-ray diffraction allows to obtain structural information with a resolution better than 2...



[READ ONLINE](#)
[7.93 MB]

Reviews

An incredibly awesome ebook with perfect and lucid answers. It can be loaded with knowledge and wisdom You may like how the article writer compose this ebook.

-- **Mr. Chadd Bashirian V**

Excellent eBook and useful one. It can be rally fascinating throug looking at period. You can expect to like just how the blogger create this publication.

-- **Myrl Schmitt**