

## Understanding nanostructures and nanostructure development using X-ray and complementary spectroscopic techniques

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### Abstract:

Nanostructures are made use of for a range of applications because of their unique optical and electrical properties. These nanostructures can be purely organic or inorganic or even hybrid in nature. As structures become more complex due to the requirement for a combination of different properties in one single structure, it becomes more critical to be able to study the structural and chemical composition carefully. Such investigations will provide some insight to the mechanistic development of the structures and why these structures can lead to the desired properties. In this talk, I will cover a few examples on how x-ray techniques in combination of other spectroscopic techniques can be used to acquire important information in these systems.