DESCRIPTION

The first overview of this topic begins with some historical aspects and a survey of the principles of the gas aggregation method. The second part covers modifications of this method resulting in different specialized techniques, while the third discusses the post-growth treatment that can be applied to the nanoparticles. The whole is rounded off by a review of future perspectives and the challenges facing the scientific and industrial communities.

An excellent resource for anyone working with the synthesis of nanoparticles, both in academia and industry.

ABOUT THE AUTHOR

Yves Huttel received his Ph.D. degree from the University of Paris-Sud, Orsay, France. After his degree he worked at the Synchrotron LURE, France, at the University of Paris-Sud, France, and at the ICMM-CSIC, Spain. He was also a postdoctoral researcher at the Synchrotron of Daresbury Laboratory, UK, before returning to the CSIC at the IMM. He joined the Surfaces, Coatings, and Molecular Astrophysics Department at the ICMM that belongs to the Consejo Superior de Investigaciones Científicas (CSIC), Spain, with a Ramón y Cajal Fellowship. Since 2007, he has been working at the ICMM as a Permanent Scientist and he leads the Low-Dimensional Advanced Materials Group. His research focuses on low-dimensional systems including surfaces, interfaces and nanoparticles, as well as XMCD, XPS and nanomagnetism.