

1. Record Nr.	UNINA9910711241903321
Autore	Bates Roger G (Roger Gordon), <1912-2007.>
Titolo	Electrochemical analysis section : summary of activities July 1967 to June 1968 / / Roger G. Bates
Pubbl/distr/stampa	Gaithersburg, MD : , : U.S. Dept. of Commerce, National Institute of Standards and Technology, , 1968
Descrizione fisica	1 online resource
Collana	NBS technical note ; ; 453
Altri autori (Persone)	BatesRoger G <1912-2007.> (Roger Gordon)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	1968. Contributed record: Metadata reviewed, not verified. Some fields updated by batch processes. Title from PDF title page.
Nota di bibliografia	Includes bibliographical references.

2. Record Nr.	UNINA9910254637603321
Autore	Hwang Nong Moon
Titolo	Non-Classical Crystallization of Thin Films and Nanostructures in CVD and PVD Processes // by Nong Moon Hwang
Pubbl/distr/stampa	Dordrecht : , : Springer Netherlands : , : Imprint : Springer, , 2016
ISBN	94-017-7616-4
Edizione	[1st ed. 2016.]
Descrizione fisica	1 online resource (XII, 332 p. 229 illus., 64 illus. in color.)
Collana	Springer Series in Surface Sciences, , 0931-5195 ; ; 60
Disciplina	621.38152
Soggetti	Surfaces (Physics) Interfaces (Physical sciences) Thin films Materials—Surfaces Nanoscience Nanostructures Semiconductors Nanotechnology Surface and Interface Science, Thin Films Surfaces and Interfaces, Thin Films Nanoscale Science and Technology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	1 Non-Classical Crystallization -- 2 Thermodynamics of Physical and Chemical Vapour Deposition -- 3 Nucleation -- 4 Growth -- 5 Diamond Synthesis at Low Pressure -- 6 Growth Mechanism of CVD Diamond -- 7 Growth Mechanism of CVD Silicon -- 8 Other Works Related to Non-Classical Crystallization of Thin Films and Nanostructures -- 9 Experimental Confirmation of Charged Nanoparticles during Atmospheric CVD Using Differential Mobility Analyser -- 10 Experimental Confirmation of Charged Nanoparticles at Low Pressure -- 11 Deposition Behavior of Charged Nanoparticles -- 12 Bias Effect on Deposition Behaviour of Charged Nanoparticles -- 13 Charge-Enhanced Kinetics -- 14 Implications and Applications. .

This book provides a comprehensive introduction to a recently-developed approach to the growth mechanism of thin films and nanostructures via chemical vapour deposition (CVD). Starting from the underlying principles of the low pressure synthesis of diamond films, it is shown that diamond growth occurs not by individual atoms but by charged nanoparticles. This newly-discovered growth mechanism turns out to be general to many CVD and some physical vapor deposition (PVD) processes. This non-classical crystallization is a new paradigm of crystal growth, with active research taking place on growth in solution, especially in biomineralization processes. Established understanding of the growth of thin films and nanostructures is based around processes involving individual atoms or molecules. According to the author's research over the last two decades, however, the generation of charged gas phase nuclei is shown to be the rule rather than the exception in the CVD process, and charged gas phase nuclei are actively involved in the growth of films or nanostructures. This new understanding is called the theory of charged nanoparticles (TCN). This book describes how the non-classical crystallization mechanism can be applied to the growth of thin films and nanostructures in gas phase synthesis. Based on the author's graduate lecture course, the book is aimed at senior undergraduate and graduate students and researchers in the field of thin film and nanostructure growth or crystal growth. It is hoped that a new understanding of the growth processes of thin films and nanostructures will reduce trial-and-error in research and in industrial fabrication processes.

3. Record Nr.	UNINA9910983494503321
Titolo	Innovative Computing and Communications : Proceedings of ICICC 2024, Volume 3 // edited by Aboul Ella Hassanien, Sameer Anand, Ajay Jaiswal, Prabhat Kumar
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2025
ISBN	981-9741-52-1
Edizione	[1st ed. 2025.]
Descrizione fisica	1 online resource (633 pages)
Collana	Lecture Notes in Networks and Systems, , 2367-3389 ; ; 1039
Disciplina	004
Soggetti	Telecommunication Cooperating objects (Computer systems) Internet of things Artificial intelligence Communications Engineering, Networks Cyber-Physical Systems Internet of Things Artificial Intelligence
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Sommario/riassunto	This book includes high-quality research papers presented at the Seventh International Conference on Innovative Computing and Communication (ICICC 2024), which is held at the Shaheed Sukhdev College of Business Studies, University of Delhi, Delhi, India, on 16–17 February 2024. Introducing the innovative works of scientists, professors, research scholars, students, and industrial experts in the field of computing and communication, the book promotes the transformation of fundamental research into institutional and industrialized research and the conversion of applied exploration into real-time applications.