1. Record Nr. UNISA996466171103316

Titolo	Collaborative and distributed chemical engineering : from understanding to susbstantial design process support : results of the IMPROVE Project / / Manfred Nagl, Woldgang Marquardt
Pubbl/distr/stampa	Berlin, Germany ; ; New York, New York : , : Springer-Verlag, , [2008] ©2008
ISBN	3-540-70552-X
Edizione	[1st ed. 2008.]
Descrizione fisica	1 online resource (XII, 851 p.)
Collana	Lecture notes in computer science ; ; 4970
Classificazione	CHE 020f CIT 300f DAT 800f SS 4800
Disciplina	660
Soggetti	Chemical engineering
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references (pages [785]-849) and author index.
Nota di contenuto	Goals, Approach, Functionality of Resulting Tools, and Project Structure -- A Model-Driven Approach for A-posteriori Tool Integration -- A Scenario Demonstrating Design Support in Chemical Engineering -- The Interdisciplinary IMPROVE Project -- Application Domain Modeling -- An Introduction to Application Domain Modeling -- Product Data Models -- Document Models -- Work Process Models -- Decision Models -- Integrated Application Domain Models for Chemical Engineering -- New Tool Functionality and Underlying Concepts -- Using Developers' Experience in Cooperative Design Processes -- Incremental and Interactive Integrator Tools for Design Product Consistency -- Multimedia and VR Support for Direct Communication of Designers -- An Adaptive and Reactive Management System for Project Coordination -- Platform Functionality -- Goal-Oriented Information Flow Management in Development Processes -- Service Management for Development Tools -- Integration Aspects -- Scenario-Based Analysis of Industrial Work Processes -- Integrative Simulation of Work Processes -- An Integrated Environment for Heterogeneous Process Modeling and Simulation -- Design Support of

Reaction and Compounding Extruders -- Synergy by Integrating New Functionality -- Usability Engineering -- Software Integration and Framework Development -- Steps towards a Formal Process/Product Model -- From Application Domain Models to Tools: The Sketch of a Layered Process/Product Model -- Work Processes and Process-Centered Models and Tools -- Model Dependencies, Fine-Grained Relations, and Integrator Tools -- Administration Models and Management Tools -- Process/Product Model: Status and Open Problems -- Transfer to Practice -- Industrial Cooperation Resulting in Transfer -- Ontology-Based Integration and Management of Distributed Design Data -- Computer-Assisted Work Process Modeling in Chemical Engineering -- Simulation-Supported Workflow Optimization in Process Engineering -- Management and Reuse of Experience Knowledge in Extrusion Processes -- Tools for Consistency Management between Design Products -- Dynamic Process Management Based upon Existing Systems -- Service-Oriented Architectures and Application Integration -- Evaluation -- Review from a Design Process Perspective -- Review from a Tools' Perspective -- Review from an Industrial Perspective -- Review from Academic Success Perspective.

Sommario/riassunto

IMPROVE stands for "Information Technology Support for Collaborative and Distributed Design Processes in Chemical Engineering" and is a large joint project of research institutions at RWTH Aachen University. This volume summarizes the results after 9 years of cooperative research work. The focus of IMRPOVE is on understanding, formalizing, evaluating, and, consequently, improving design processes in chemical engineering. In particular, IMPROVE focuses on conceptual design and basic engineering, where the fundamental decisions concerning the design or redesign of a chemical plant are undertaken. Design processes are analyzed and evaluated in collaboration with industrial partners.

2. Record Nr. UNINA9910253914003321

Autore	Priyadarshan P.M
Titolo	Biology of Hevea Rubber / / by P.M. Priyadarshan
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2017
ISBN	3-319-54506-X
Edizione	[1st ed. 2017.]
Descrizione fisica	1 online resource (IX, 251 p. 81 illus., 46 illus. in color.)
Disciplina	582.16
Soggetti	Trees Biomaterials Botany Tree Biology Plant Sciences
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Introduction -- Genesis and Development -- Plant Structure and Eco-physiology -- Propagation Systems -- Latex Production, Diagnosis and Harvest -- Genetic Resources -- Heterozygosis and Breeding -- Genetics of Traits -- Environmental constraints and adaptation to global changes -- Genotype-by-Environment Interactions.- Biotechnology -- Biological Constraints -- Genomics and Molecular Breeding -- Ancillary Income Generations.
Sommario/riassunto	In the second edition of this book, the origin, upkeep and latex harvest from the Hevea rubber tree are dealt with succinctly. New chapters have been included on Propagation Systems and Genetic Resources. The importance of Heterozygosis and Breeding is a new theme for the section on Breeding. A new chapter on Genomics and Molecular Breeding that focuses on the latest advancements on gene mapping, marker assisted selection and stimulation has been added. Lastly, ‘textboxes’ that highlight points and topics of significant interest are included in the new addition. Natural rubber has been an essential commodity not only for the tire industry but also for more than 50,000 products that holds elasticity as an attribute. The prime source of natural rubber worldwide is Hevea brasiliensis. Hevea rubber tree is an

excellent example of how a soil-tree-atmosphere system can work in tandem. The retrieval of rubber through ‘injuring’ the tree on alternate days or once in three days or once in seven days, is indeed a unique arrangement followed universally that ensures income to the planter almost throughout the year. Every molecule of rubber is the end result of meticulous biochemical changes. Therefore the biology of Hevea rubber tree itself is a subject that aggregates science and technology for the realization of its industrial utility.