

1. Record Nr.	UNINA9910461731403321
Autore	Thagard Paul
Titolo	The cognitive science of science : explanation, discovery, and conceptual change // Paul Thagard ; in collaboration with Scott Findlay ... [et al.]
Pubbl/distr/stampa	Cambridge, Mass., : MIT Press, c2012
ISBN	1-280-49923-0 9786613594464 0-262-30172-5
Descrizione fisica	1 online resource (379 p.)
Disciplina	501
Soggetti	Science - Philosophy Cognitive science Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Contents; Preface; Acknowledgments; Part I. Introduction; Chapter 1. What Is the Cognitive Science of Science?; Explaining Science; Approaches to the Cognitive Science of Science; Methodology of Computational Modeling; Unified Cognitive Science Research; Other Approaches to Studying Science; Studies in the Cognitive Science of Science; Part II. Explanation and Justification; Chapter 2. Why Explanation Matters; Chapter 3. Models of Scientific Explanation; Explanation; Deductive Models; Schema and Analogy Models; Probabilistic Models; Neural Network Models; Causality; Conclusion Chapter 4. How Brains Make Mental ModelsIntroduction; Mental Models; Abduction; Neural Representation and Processing; Neural Mental Models; Generating New Ideas and Hypotheses; Embodiment: Moderate and Extreme; Conclusion; Chapter 5. Changing Minds about Climate Change: Belief Revision, Coherence, and Emotion; Scientific Belief Revision; Climate Change; Coherence and Revision; Simulating Belief Revision about Climate Change; Simulating Resistance to Belief Revision; Alternative Theories of Belief Revision; Conclusion; Appendix Chapter 6. Coherence, Truth, and the Development of Scientific

Knowledge Introduction; The Relation between Coherence and Truth; Explanatory Coherence; The Pessimistic Induction; Whewell 's Overoptimistic Induction; Deepening and the Cautiously Optimistic Induction; Mechanisms and Explanation; Approximate Truth; Deepening the Deepening Maxim; Conclusion; Part III. Discovery and Creativity; Chapter 7. Why Discovery Matters; Chapter 8. The Aha! Experience: Creativity through Emergent Binding in Neural Networks; Creative Cognition; Creativity from Combination of Representations Neural Combination and Binding Binding by Convolution; Emotion and Creativity; Simulations; What Convolutions Are Creative?; Limitations; Comparisons with Related Work; Conclusion; Chapter 9. Creative Combination of Representations: Scientific Discovery and Technological Invention; Introduction; Study 1: Scientific Discovery; Study 2: Technological Invention; Objections to Combination; Conclusion; Appendix: Blind Variation; Chapter 10. Creativity in Computer Science; Introduction; Nature and Origins of Problems in Computer Science; Creative Analogies in Computer Science; Everyday Creativity The Casual Mode of Creativity Comparison with Natural Science; Conclusion; Chapter 11. Patterns of Medical Discovery; Introduction; Medical Hypotheses; Logical Patterns; Psychological Patterns; Neural Patterns; Technological Patterns; Conclusion; Part IV. Conceptual Change; Chapter 12. Why Conceptual Change Matters; Chapter 13. Conceptual Change in the History of Science: Life, Mind, and Disease; Introduction; History and Philosophy of Science; Life; Disease; Mind; Conceptual Change; Chapter 14. Getting to Darwin: Obstacles to Accepting Evolution by Natural Selection; Introduction Cognitive Obstacles

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#### Sommario/riassunto

A cognitive science perspective on scientific development, drawing on philosophy, psychology, neuroscience, and computational modeling.

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2. Record Nr.	UNINA9910298595103321
Titolo	Biosynthetic Technology and Environmental Challenges // edited by Sunita J. Varjani, Binod Parameswaran, Sunil Kumar, Sunil K. Khare
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2018
ISBN	981-10-7434-8
Edizione	[1st ed. 2018.]
Descrizione fisica	1 online resource (XV, 401 p. 53 illus., 38 illus. in color.)
Collana	Energy, Environment, and Sustainability, , 2522-8374
Disciplina	620.11
Soggetti	Biomaterials Biotechnology Refuse and refuse disposal Waste Management/Waste Technology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	Part I General -- Introduction to Biosynthetic Technology and Environmental -- Part II: Biosynthetic Approaches and Products -- Management of Agro-Industrial Wastes with the Aid of Synthetic Biology -- Advances and Tools in Engineering Yeast for Pharmaceutical Production -- Plant Biosynthetic Engineering through Transcription Regulation: An insight into Molecular Mechanisms During Environmental Stress -- Oil Palm Biomass and its Kinetic Transformation Properties -- Selection and Utilization of Agro-Industrial Waste for Biosynthesis and Hyper-Production of Pullulan: A Review -- Production, Characterization, and Applications of Microbial Poly-Glutamic Acid -- Bioprocesses for the Production of 2,5-Furandicarboxylic Acid -- Biosynthesis of 1,3-Propanediol: Genetics and Applications -- Biosynthesis and Technological Advancements of Biosurfactants -- Recovery of Nutraceuticals from Agri-Food Industry Waste by Lactic Acid Fermentation -- Manno-Oligosaccharides as Prebiotic Valued Products from Agro-Waste -- Computational Modelling and Prediction of Microalgae Growth Focused towards Improved Lipid Production -- Perennial Energy Crops on Drained Peatlands in Finland -- Part III: Environmental Assessment and Waste Management -- Bioenergy Conversion from Aquatic Weed Water Hyacinth into Agronomically Valuable Vermicompos -- Mitigation of

Global Warming Potential for Cleaner Composting -- Recent Advances in Composting of Organic and Hazardous Waste: A Road Map to Safer Environment -- Biomarkers Currently used in Water Pollution Monitoring Program -- Bioremediation by Microalgae: Current and Emerging Trends for Effluents Treatments for Value Addition of Waste Streams -- Environmental Assessment of Biorefineries.

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**Sommario/riassunto**

This book provides a comprehensive review of biosynthetic approaches to the production of industrially important chemicals and the environmental challenges involved. Its 19 chapters discuss different aspects of biosynthetic technology from the perspective of leading experts in the field. It covers various biorefinery approaches, including the use of microbes, metabolically engineered plants, biomass-based and green technology methods. Further, it examines important research in the areas of organic and hazardous waste composting, management and recovery of nutraceuticals from agro-industrial waste, biosynthesis and technological advancements of biosurfactants and waste water bioremediation. This book contributes to the scientific literature on biosynthetic technologies and the related environmental challenges for researchers and academics working in this area around the globe.

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