Changing Stocks, Flows and Behaviors in Industrial Ecosystems

Edited by Matthias Ruth, Pro-Vice-Chancellor for Research, University of York, UK and Brynhildur Davidsdottir, Associate Professor of Environment and Natural Resources, University of Iceland, Reykjavik and Director, Graduate Program in Environment and Natural Resources

Industrial ecology provides a consistent material and energetic description of human production and consumption processes in the larger context of environmental and socioeconomic change. The contributors to this book offer methodologies for such descriptions, focusing on the dynamics associated with stocks of materials and capital, flows of raw materials, intermediate products, desired outputs and wastes, as well as the associated changes in behaviors of producers, consumers and institutions.

‘This book marks an important contribution by Matthias Ruth and Brynhildur Davidsdottir to the developing literature that seeks to integrate our understanding of physical and environmental systems, the built human environment, economics, and complexity. It is a valuable resource for anyone interested in industrial ecology, material flow assessment, and the state of the world generally.’
– Braden R. Allenby, Arizona State University, US

‘This volume offers the state-of-the-art in dynamic modeling of the functioning of firms in industrial ecosystems. The systematic connection between insights from engineering, ecological, behavioral and organization theories makes the insights policy-relevant. The authors combine an impressive knowledge of innovative concepts and modeling techniques with data on real-world industrial ecosystems.’
– Jeroen van den Bergh, Free University, Amsterdam, The Netherlands

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