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Olga A. Simakova · Robert J. Davis
Dmitry Yu. Murzin

Biomass Processing over Gold Catalysts

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Olga A. Simakova
School of Chemical and
Biomolecular Engineering
Georgia Institute of Technology
Atlanta, GA
USA

Dmitry Yu. Murzin
Laboratory of Industrial Chemistry and
Reaction Engineering
Åbo Akademi University
Turku
Finland

Robert J. Davis
Department of Chemical Engineering
University of Virginia
Charlottesville, VA
USA

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Preface

Gold catalysts have been proven to possess a unique set of catalytic properties for a variety of reactions. The consequent interest in catalysis by gold has resulted in extensive research activity in this area. Biomass is a renewable and rich source of chemicals. New methods of biomass valorization involve catalytic transformations of biomass-derived compounds, and gold catalysts have been shown to be promising catalysts for the diverse reactions needed.

This book describes in brief the nature of the gold catalytic properties. The major part of the work covers various transformations of biomass-derived chemicals, including selective oxidation, hydrogenation, isomerization, acetalization, and amination reactions. The superior performance of gold catalysts discovered in the past 7 years is discussed in detail.

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