

1. Record Nr.	UNINA9910741139003321
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Titolo	Biomass processing over gold catalysts // Olga A. Simakova, Robert J. Davis, Dmitry Yu. Murzin
Pubbl/distr/stampa	New York, : Springer, 2013
ISBN	9783319009063 3319009060
Edizione	[1st ed. 2013.]
Descrizione fisica	1 online resource (viii, 54 pages) : illustrations (some color)
Collana	SpringerBriefs in molecular science
Altri autori (Persone)	DavisRobert J MurzinDmitry
Disciplina	541.395
Soggetti	Metal catalysts Biomass conversion Biomass energy
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	"ISSN: 2191-5407." "ISSN: 2191-5415 (electronic)."
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Introduction -- Selective Oxidation/Dehydrogenation Reactions -- Acetalization -- N-alkylation -- Selective Hydrogenation Reactions -- Double Bond Oxidation Reactions -- Isomerization Reactions -- Gold Catalysts Stability -- Summary.
Sommario/riassunto	The book describes the valorization of biomass-derived compounds over gold catalysts. Since biomass is a rich renewable feedstock for diverse platform molecules, including those currently derived from petroleum, the interest in various transformation routes has become intense. Catalytic conversion of biomass is one of the main approaches to improving the economic viability of biorefineries. In addition, Gold catalysts were found to have outstanding activity and selectivity in many key reactions. This book collects information about transformations of the most promising and important compounds derived from cellulose, hemicelluloses, and woody biomass extractives. Since gold catalysts possess high stability under oxidative conditions, selective oxidation reactions were discussed more thoroughly than other critical reactions such as partial hydrogenation, acetalization, and isomerization. The influence of reaction conditions, the role of the

catalyst, and the advantages and disadvantages of using gold are presented for all of the reactions mentioned above. This book provides an overview of the recent research results focusing on application of gold catalysts for synthesis of valuable chemicals using renewable feedstocks.

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