



Enzymatic and Model Carboxylation and Reduction Reactions for Carbon Dioxide Utilization (Paperback)

By -

Springer, Netherlands, 2012. Paperback. Condition: New. Language: English . Brand New Book ***** Print on Demand *****.The activation of carbon dioxide by transition metal complexes has been extensively studied, both experimentally and theoretically. 1 Central reactions in this chemistry are the insertion of CO₂ into M-X bonds, where X = H, C, O, and N. (eq. 1-4). We are presently investigating the mechanistic aspects of these reaction processes and will herein describe our current level of understanding. Comparisons of the pathway of the carbon-carbon bond forming process in transition metal chemistry with the well known analogous chemistry involving organolithium reagents will be presented. Furthermore, the role of these reaction types in both homogeneous and heterogeneous catalytic processes leading to useful chemicals will be elaborated. OM> (1) IMt-H + ~ IMlopi OM> (2) [Mt-R + CO. 2 [M]0. 2CR OM> (3) [Mt-OR+ ~ [M]0. 2COR OM> (4) [Mt-NR2 + CO. 2 [M]~CNR2 Insertion of CO₂ into the Metal-Hydride Bond. The reaction of anionic group 6 (Cr, Mo, W) transition metal hydrides with carbon dioxide to afford metalloformates occurs readily at ambient temperature and 2 reduced pressures of carbon dioxide. This insertion process is referred to the normal pathway (Scheme 1). There...



READ ONLINE
[3.22 MB]

Reviews

The book is simple in read through safer to understand. I could comprehend everything out of this published e pdf. I discovered this book from my i and dad advised this pdf to learn.

-- **Maud Kulas I**

This is basically the finest publication i actually have go through till now. We have read and i also am confident that i am going to likely to read through again once more in the foreseeable future. It is extremely difficult to leave it before concluding, once you begin to read the book.

-- **Prof. Adell Lubowitz**