

BOOK REVIEW

Progress in C₁ Chemistry in Japan. Edited by Y. YONEDA ET AL. Elsevier Science, Amsterdam, 1989, 408 pp., \$156.00.

Kodansha and Elsevier, who earlier cooperated to produce the *Proceedings of the 7th International Congress on Catalysis* (Tokyo, 1984), now offer a book edited by a team of the Research Association for C₁ Chemistry. The team was led by Professor Yoneda (Tokyo). It was a very good idea to produce such a book and the result is certainly rewarding.

The Japanese C₁ Chemistry Project ran from 1980 to 1986 and it united the forces of many excellent scientists of the leading labs in Japan. The research in the framework of this project supplied a wealth of information which has been spread over many Japanese and international journals. In this monograph, a group of editors prepared a summarizing and critical review of the most relevant results gathered in those 6 years or shortly afterwards. This effort will certainly be appreciated by the international scientific forum and I am convinced that this book will find its way into many libraries. Interest in syngas chemistry (CO + H₂) has decreased since 1986 but the topic itself is a "sleeping beauty." The potential success of some new processes (Shell or Statoil) as well as the expected increase in oil prices in the second half of this decade will undoubtedly revive interest in syngas and related technologies. It is wise to be prepared for it and this book should be quite helpful in the preparation.

After a general introduction, the editors review individual topics: glycol synthesis, gas- and liquid-phase ethanol synthesis, synthesis of acetic acid, and synthesis of hydrocarbons from either syngas or methanol. All of this is complemented by a description of the place of each particular topic in the national C₁ Project and indications of relations among the topics. Although the main purpose of this book is to review the Japanese project, where necessary the lists of references also cite contributions of authors in other countries.

The review is valuable because of its completeness with respect to the Japanese papers and because it offers a critical view. One example of the latter concerns the long-standing controversy in the literature on the question of whether Rh/SiO₂ is or is not a catalyst selective in the synthesis of C₂₊ oxygenates. The editors come to the conclusion (which this reviewer can confirm) that the researchers who worked with commercial silicas had their Rh promoted by contaminants originating from the support.

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