J|A|C|S

ADDITIONS AND CORRECTIONS

Novel Role of Carbon Monoxide as a Lewis Acid Catalyst for Friedel-Crafts Reaction [*J. Am. Chem. Soc.* **2001**, *123*, 8626−8627]. Sensuke Ogoshi,* Hiromitsu Nakashima, Kazumasa Shimonaka, and Hideo Kurosawa

This paper reported that carbon monoxide promotes the Friedel-Crafts reaction as a Lewis acid. Due to the unexpected role of carbon monoxide, we checked and eliminated a possibility of $Fe(CO)_5$ as the true catalyst as described in the paper. We also confirmed that the carbon monoxide gas passed through a KOH column showed no decrease in the efficiency to cause the alkylation. After publication, we started a very careful kinetic study on this reaction to understand the reaction pathway. However, we observed scattering reaction rates under the same carbon monoxide pressure. In the course of the kinetic study, Prof. George A. Olah of the University of Southern California informed us that he found the efficiency of the reaction to depend on the source of carbon monoxide; carbon monoxide supplied in an aluminum cylinder gave extremely low yields ($<10\%$) of alkylation product, while use of the gas in a steel cylinder led to high yields. This gas, however, lost this efficiency when passed through a charcoal column. After obtaining this information, we confirmed the result with a charcoal column. Similarly, we found the gas passed through a silica column or washed with H_2SO_4 did not promote the reaction. These observations appear to suggest that carbon monoxide is not a Lewis acid for the Friedel-Crafts reaction, but some substance contained in the gas is responsible for the reaction. So far, we have not identified the real catalyst for this reaction due to its extremely low concentration in the reaction mixture. Therefore any possible catalyst for this reaction must be extremely efficient and thus appears worthy of identification. In conclusion, our claim that carbon monoxide could be a Lewis acid for the Friedel-Crafts reactions is not correct and we apologize for any confusion this may have caused. We thank Prof. Olah for kindly informing us of his valuable obsevations.

JA015126Q

10.1021/ja015126q
Published on Web 01/29/2002

A Versatile New Method for the Synthesis of Cyclopentenones via an Unusual Rhodium-Catalyzed Intramolecular Trans Hydroacylation of an Alkyne [*J. Am. Chem. Soc.* **2001**, *123*, 11492−11493]. Ken Tanaka and Gregory C. Fu*

The catalyst loadings are incorrect: A 5% loading, not a 10% loading, of $[Rh(dppe)]_2(BF_4)_2$ was employed in all of the cyclization reactions.

JA015128A

10.1021/ja015128a
Published on Web 01/19/2002

10.1021/ja015126q CCC: $22.00