

Angewandte Addendum

The Retro-Hydroformylation Reaction

S. Kusumoto, T. Tatsuki,
K. Nozaki* ————— **8458–8461**

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Following publication of this Communication, Dr. Boy Cornils (Hofheim, Germany) kindly informed the authors about the missing references for the retro-hydroformylation reaction. In the late 1960s, Orlicek^[1] and inventors from Ruhrchemie AG^[2] reported that cracking of isobutyraldehyde into propylene, carbon monoxide, and hydrogen was possible. The work was also published in academic literature in 1972.^[3] In this reference, the two authors reported about the cracking of isobutyraldehyde, an undesired side-product of the oxo-process, to recover propylene and syngas using rhodium on alumina as a catalyst.

Dr. Cornils comments that in 1972, his group confirmed the data in a months-and-months run on a pilot plant scale. He says “it worked but not economically enough for industrial scale application.”

In addition, in 1968, Tsuji et al. reported the formation of nonene as a major product in their attempt for decarbonylation of decanal with a heterogeneous palladium catalyst.^[4]

[1] A. Orlicek, Austrian Patent 277.949 (1968).

[2] J. Falbe, H. D. Hahn, H. Tummes, DE 1.668.647, 1.767.281, 1.809.727, and 1.917.244 (1968–1970).

[3] J. Falbe, H. D. Hahn, *Chemiker-Zeitung* **1972**, 96, 164.

[4] J. Tsuji, K. Ohno, *J. Am. Chem. Soc.* **1968**, 90, 94.