ERRATUM

Volume 84, Number 1 (1983), in the article "Multiple Isotope Tracing of Methanation over Nickel Catalyst. III. Completion of ¹³C and D Tracing," by M. Otarod, S. Ozawa, F. Yin, M. Chew, H. Y. Cheh, and J. Happel, pages 156–169: The formula corresponding to Eqs. (11) and (13), page 166, appears to be inconsistent with the assumption of very rapid exchange of hydrogen species with water in the gas phase; there were also errors in typing and subsequent computations using the formula.

Equation (13) should read:

$$k = \frac{F_i^{\text{H}_2}}{(C_0 + C_2) + WC_1/2}$$

where $C_2 = C^{\rm H_x D_{2-x} O}$, the outlet flow rate of all the water species. The calculated values for $C_1 = C^{\rm Hl} + C^{\rm Dl}$ then become 13.5 for Run 021081 and 2.18 for Run 083181.

This results in a much larger apparent surface occupancy than the estimate given on page 168, top of the right column, for the case of a high H₂/CO ratio observed in Run 110879. Roughly in this case the hydrogen coverage appears to be the same as for a clean catalyst, indicating that it may be possible for hydrogen occupancy to be high in the case of a low CO concentration in the ambient reacting gases.