Additions and Corrections

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Brooks J. Hornstein and Richard G. Finke: Transition-Metal Nanocluster Kinetic and Mechanistic Studies Emphasizing Nanocluster Agglomeration: Demonstration of a Kinetic Method That Allows Monitoring of All Three Phases of Nanocluster Formation and Aging

The revised pseudo-elementary step below, (3d), needed to treat the kinetics in our recent paper (*Chem. Mater.* **2004**, *16*, 139–150) should be used to replace the prior eq 4 in that paper. This, in turn, leads to a number of other changes as shown below. *None of the main findings or conclusions of the paper are changed, however.*

The following six equations, (3a)—(3e) and (4), should be used to replace the prior five equations (3a)—(3d) and (4) shown in our paper. Basically, prior eqs 3d and 4 on p 143, as well as their order, need to be changed:

$$\alpha x[A \xrightarrow{k_1} B] \tag{3a}$$

$$\alpha(1-x)[A+B\xrightarrow{k_2} 2B]$$
 (3b)

1400[B + cyclohex*ene* +
$$H_2 \xrightarrow{\text{fast}} B$$
 + cyclohex*ane*] (3c)

SUM: $\alpha A + 1400$ cyclohex*ene* +

$$1400 \text{ H}_2 \xrightarrow{k_{\text{SUM}}} \alpha B + 1400 \text{ cyclohex}$$
 (3d)

$$^{1}/_{2}[B + B \xrightarrow{k_{3}} 2(1 - y)B + 2yC]$$
 (i.e., $yB \rightarrow yC$) (3e)

NET REACTION:
$$A \rightarrow (1 - y)B + yC$$
 (4)

These changes are necessary since y is time-dependent, y = y(t), and should not have been used in the previously proposed pseudo-elementary step (4) on p 143

in our paper. This led to problems such as the following: the incorrect " $[C]/[B]_t = (y)/(1-y)$ ", which is obviously not a constant if one considers the changing $[C]/[B]_t$ ratio in Figure 5 in our paper; or the "1/(1-y) (d[B]/dt) = 1/(y) (d[C]/dt)" which, again, when considering Figure 5 or considering the $A \rightarrow B \rightarrow C$ nature of the system, cannot be correct.

The reformulation of the pseudo-elementary step, (3d), above, and the resultant changed kinetic derivation (see the Supporting Information accompanying this addition/correction), leads to the following changes in our original paper: (i) the equations in lines 28-29 of the right-hand column on p 142 becomes " $1/\alpha$ (-d[A]/dt) = 1/1400 (-d[cyclohexene]/dt); (ii) eq 5 on p 143 and the 12 lines beneath it (lines 15-26) in that right-hand column) should be dropped and replaced by the treatment in the new Supporting Information; (iii) the k_1 , k_2 , and k_3 values in Table 2 on p 146 should be changed to $k_1 = 0.023$ h⁻¹, $k_2 = 6290/\alpha$ M⁻¹ h⁻¹, and $k_3 = 2100/\alpha$ M⁻¹ h⁻¹ (and a $\alpha \approx 0.7$ may be used to correct these values further if desired; see the new Supporting Information).

Additionally, (iv) throughout the paper " k_{3obs} " (note the "prime") should be changed to k_{3obs} ; that is, the prime can be dropped in Table 1 on p 144, right-hand column, lines 5, 7, 11, 12, 20, and elsewhere in the original paper. Finally, (v) the sentences on the bottom of p 149 and on the top of p 150 starting, and then ending, "To make the fitting procedure... (see the derivation in eqs A.10–A.15, Appendix A.)" should be deleted. The new Supporting Information also provides additional insight into the MacKinetics curve-fitting procedure for the interested reader.

We offer our apologies for any confusion and the additional work created by these changes.

Supporting Information Available: A revised version of "Appendix A: Treatment of the Kinetic Data" (PDF). This material is available free of charge via the Internet at http://pubs.acs.org.

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