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Note

COMMENTS ON "KINETIC STUDIES ON SOME RARE EARTH CHELATES OF LAWSONE USING THERMOGRAVIMETRIC CURVES"

S. D. Kapila, K. K. Pathak and *B. M. L. Bhatia*

In a quite recent short communication which appeared in this journal (1), S. D. Kapila and coworkers applied the Coats–Redfern equation (2) to obtain the values of the activation energy for the nonisothermal decompositions of some rare earth chelates. This equation was given in the form:

$$\log\left[-\log\frac{1-\alpha}{T^2}\right] = \log\frac{AR}{a_E}\left[1-\frac{2RT}{E}\right] - \frac{E}{2.303\,RT}$$

which is wrong. The right form of the equation is:

$$\log\left[\frac{-\ln(1-\alpha)}{T^2}\right] = \log\frac{AR}{aE}\left[1-\frac{2RT}{E}\right] - \frac{E}{2.303\,RT}$$

It could be merely that the equation was written in an erroneous form, the detailed calculation being correct. However, the authors should check the correctness of the activation energy values.

References

1 S. D. Kapila, K. K. Pathak and B. M. L. Bhatia, J. Thermal Anal., 29 (1984) 1393.

2 A. W. Coats and J. P. Redfern, Nature, 211 (1964) 68.

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