

ERRATUM

Polymerization of Olefins through Heterogeneous Catalysis. VI. Effect of Particle Heat and Mass Transfer on Polymerization Behavior and Polymer Properties

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We have recently discovered an error in four of the figures for this article. Figures 28–31 of this article should be replaced with the following figures. The error arose because *mole* fraction rather than *weight* fraction was used in combining the individual site MWD into an overall distribution. The original discussion and conclusions are unchanged by this correction.

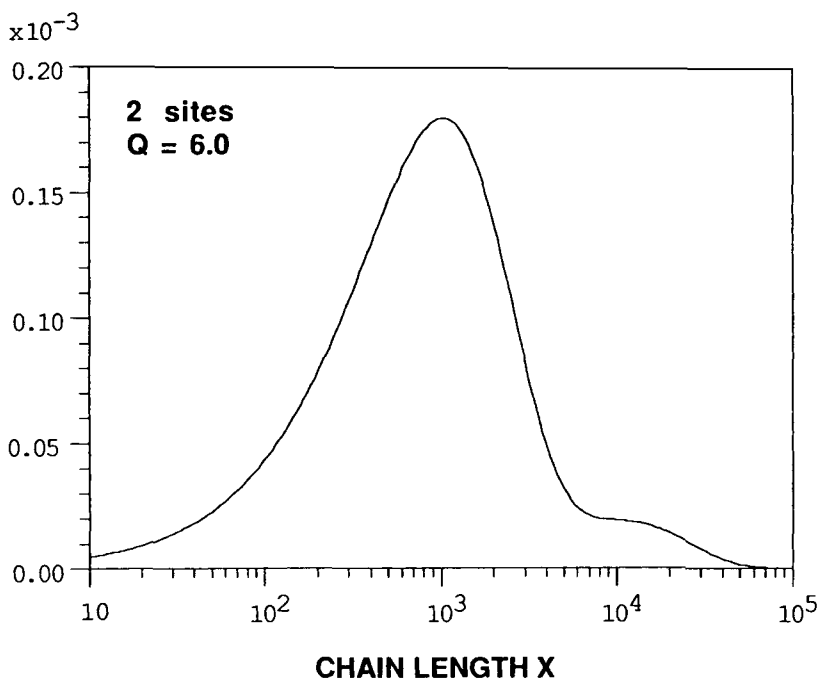


Fig. 28. Weight-MWD curve for combination of two polymer fractions with most probable distribution of chain lengths. $\nu_{n1} = 1000$, $\nu_{n2} = 10,000$, $w_1 = w_2 = 0.5$.

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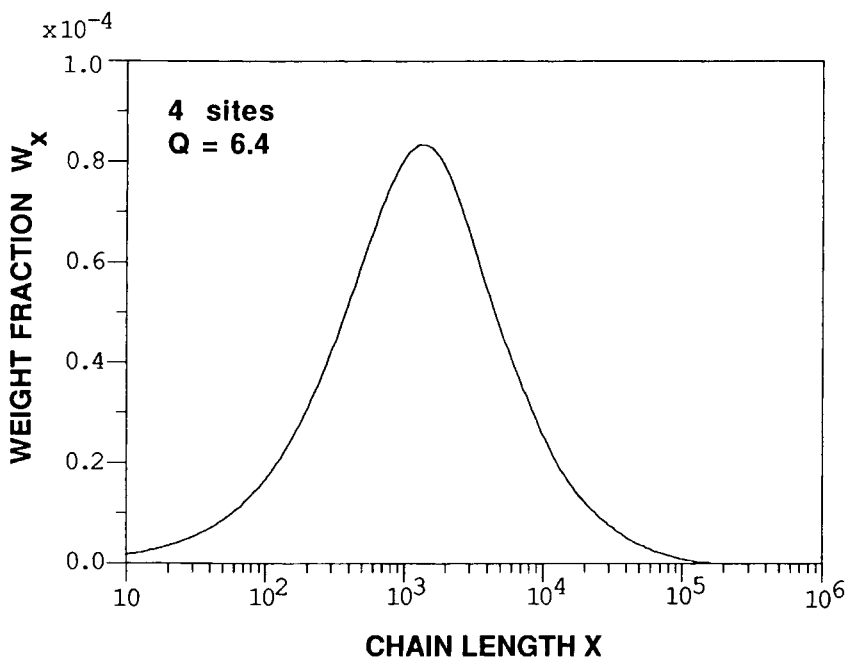


Fig. 29. Weight-MWD curve for combination of four polymer fractions with most-probable distribution of chain lengths. Ratio of chain lengths $\nu_{n1} : \nu_{n2} : \nu_{n3} : \nu_{n4} = 1 : 3 : 9 : 27$. Site fractions $\theta_1 = 0.519$, $\theta_2 = 0.333$, $\theta_3 = 0.111$, $\theta_4 = 0.037$. Weight fractions $w_1 = 0.148$, $w_2 = 0.284$, $w_3 = 0.284$, $w_4 = 0.284$.

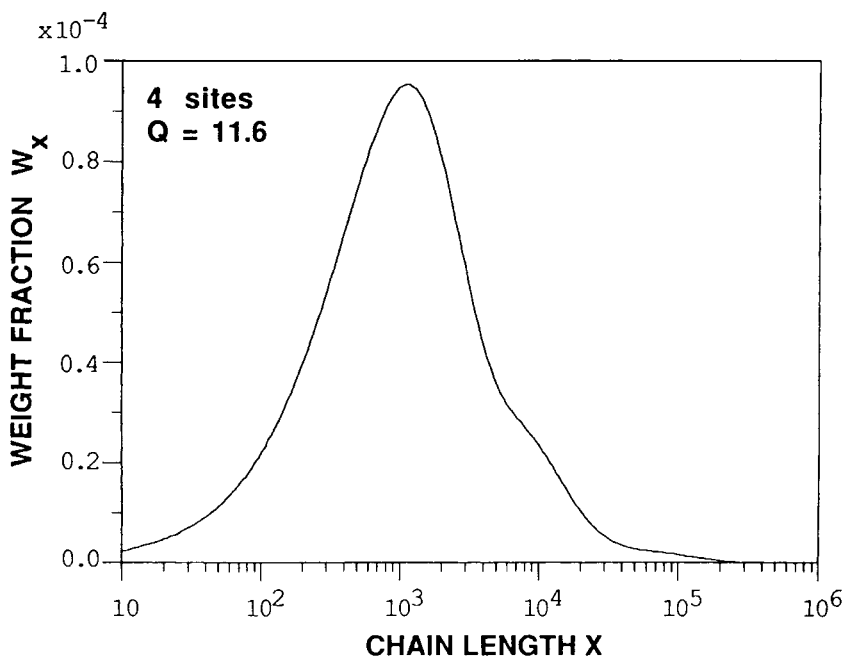


Fig. 30. Weight-MWD curve for combination of four polymer fractions with most probable distribution of chain lengths. Ratio of chain lengths $\nu_{n1} : \nu_{n2} : \nu_{n3} : \nu_{n4} = 1 : 5 : 10 : 50$. Site fractions $\theta_1 = 0.73$, $\theta_2 = 0.20$, $\theta_3 = 0.05$, $\theta_4 = 0.02$. Weight fractions $w_1 = 0.226$, $w_2 = 0.310$, $w_3 = 0.155$, $w_4 = 0.310$.

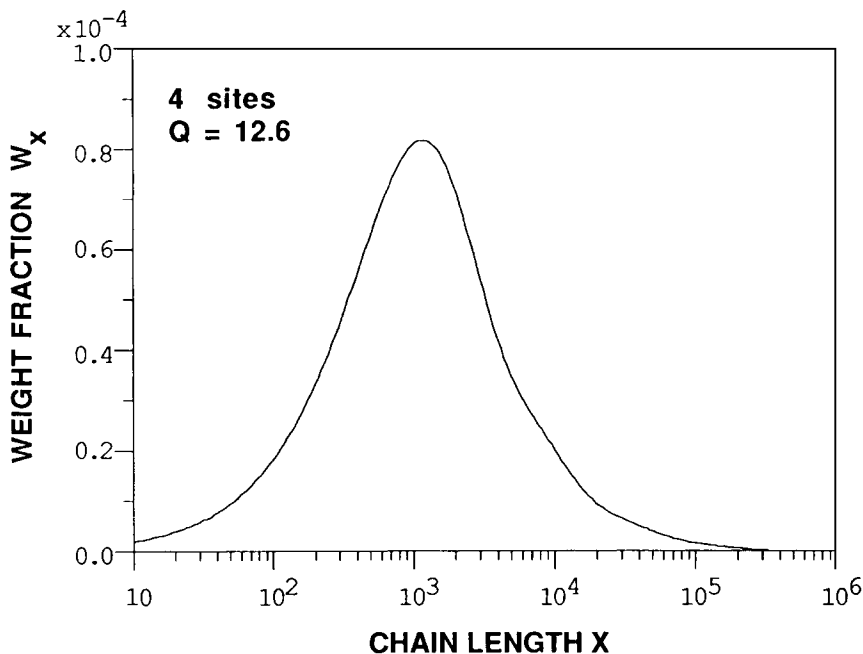


Fig. 31. Weight-MWD curve for combination of four polymer fractions with most probable distribution of chain lengths. Ratio of chain lengths $\nu_{n1} : \nu_{n2} : \nu_{n3} : \nu_{n4} = 1 : 4 : 16 : 64$. Site fractions $\theta_1 = 0.672$, $\theta_2 = 0.250$, $\theta_3 = 0.063$, $\theta_4 = 0.016$. Weight fractions $w_1 = 0.183$, $w_2 = 0.272$, $w_3 = 0.272$, $w_4 = 0.272$.

It may be instructive to add the following paragraph at the end of the first sentence on p. 1055.

Flory's "Most Probable Distribution" can be expressed in the form

$$W_x^k = \frac{x \exp(-x/x_n^k)}{(x_n^k)^2} \quad (48)$$

where W_x^k is the weight fraction of x -mer produced at the k th active site and x_n^k is the number average chain length of the polymer produced at the k th active site. The individual site distributions may then be combined according to

$$W_x = \sum_k w_k W_x^k \quad (49)$$

where W_x is the weight fraction of x -mer for all active sites combined and w_k is the weight fraction of polymer produced at the k th active site.

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