

ERRATA

'Average functionalities of macromolecules in stepwise polyfunctional polymerization', *Polymer* 1982, **23**, pages 69-72

D. Durand and C.-M. Bruneau

Page 71 column 1, 2nd equation from top should read:

$$\xi = p_A \bar{\varphi}_{wA0} + \frac{r_o p_A^2 (\bar{f}_{wA0} - 1)(\bar{f}_{wB0} - 1)}{1 - p_A \bar{\varphi}_{wA0}}$$

and in same column

$$\eta_{AB} = \eta_{AA} p_A \frac{\sum_{i=1}^n \rho_{Bi} (f_{Bi} - 1)}{1 - p_A \sum_{i=1}^n \rho_{Bi} f_{Ai}} = \eta p_A \frac{(\bar{f}_{wB0} - 1)}{1 - p_A \bar{\varphi}_{wA0}}$$

and in the same column line 5 from bottom should read:

The weight average functionalities \bar{f}_{wA} and $\bar{\varphi}_{wB}$ being the expected functionalities relative to A-sites respectively of the molecule of which any unreacted A-site, selected at random, is a part, may be written:

$$\bar{f}_{wA} = \sum_{i=1}^n \gamma_{Ai} \psi_{A,Ai} \quad \bar{\varphi}_{wB} = \sum_{i=1}^n \gamma_{Ai} \psi_{B,Ai}$$

γ_{Ai} being the probability to pick at random an unreacted A_i -site among the unreacted A-sites:

$$\forall i, \gamma_{Ai} = \frac{\rho_{Ai}(1-p_A)}{(1-p_A)} \quad \begin{matrix} \gamma_{Ai} = \rho_{Ai}, & \forall p_A \neq 1 \\ \gamma_{Ai} = 0, & \text{at } p_A = 1 \end{matrix}$$

$$\bar{f}_{wA} = 1 + \eta(\bar{f}_{wA0} - 1)(1-p_A) \left[\frac{1 + p_A \bar{\varphi}_{wA0}}{1 - p_A \bar{\varphi}_{wA0}} \right] \quad (5)$$

$$\bar{\varphi}_{wB} = \eta(1-r_o p_A) \left(\frac{p_A(\bar{f}_{wA0} - 1)(\bar{f}_{wB0} - 1)}{1 - p_A \bar{\varphi}_{wA0}} + \frac{\bar{\varphi}_{wA0}}{r_o} \right)$$

On another way:

$$\bar{\varphi}_{wB} = \frac{1 - r_o p_A}{r_o p_A} \frac{\xi}{1 - \xi} \quad (6)$$

In the same way, the expected functionalities in B-sites and A-sites of the molecules of which an unreacted B_i -site,

selected at random, is a part, are:

$$\psi_{A,Bi} = f_{Ai} s_{AA} + (f_{Bi} - 1) s_{BA}$$

$$\psi_{B,Bi} = 1 + f_{Ai} s_{AB} + (f_{Bi} - 1) s_{BB}$$

These expressions lead to the weight average functionalities \bar{f}_{wB} and $\bar{\varphi}_{wA}$:

$$\bar{f}_{wB} = \sum_{i=1}^n \gamma_{Bi} \psi_{B,Bi} \quad \bar{\varphi}_{wA} = \sum_{i=1}^n \gamma_{Bi} \psi_{A,Bi}$$

γ_{Bi} being the probability of picking at random an unreacted B_i -site among the unreacted B-sites:

$$\forall i, \gamma_{Bi} = \frac{\rho_{Bi}(1-p_B)}{(1-p_B)} \quad \begin{matrix} \gamma_{Bi} = \rho_{Bi}, & \forall p_B = 1 \\ \gamma_{Bi} = 0, & \text{at } p_B = 1 \end{matrix}$$

$$\bar{f}_{wB} = 1 + \eta(\bar{f}_{wB0} - 1)(1 - r_o p_A) \left[\frac{1 + p_A \bar{\varphi}_{wA0}}{1 - p_A \bar{\varphi}_{wA0}} \right] \quad (7)$$

$$\bar{\varphi}_{wA} = \eta(1-p_A) \left[\frac{r_o p_A (\bar{f}_{wA0} - 1)(\bar{f}_{wB0} - 1)}{1 - p_A \bar{\varphi}_{wA0}} + \bar{\varphi}_{wA0} \right]$$

$$\bar{\varphi}_{wA} = \frac{1 - p_A}{p_A} \frac{\xi}{1 - \xi} \quad (8)$$

We apologise for these errata.

'Photodegradation of poly(2,6-dimethyl-1,4-phenylene oxide) film with metal isopropyl xanthates', *Polymer* 1981, **22**, pages 523-525

R. Chandra, B. P. Singh, S. Singh and S. P. Handa

Page 525, column 1, equation (6), should read:

$$\text{PDMPO} = k_1 = 9.78 \times 10^{-2} \exp(-3988/RT) \quad (6)$$