

CORRECTIONS

Guomin Mao, Sathish Sukumaran, Gregory Beaucage, Marie-Louise Saboungi, and P. Thiagarajan*: PEO-PPO-PEO Block Copolymer Micelles in Aqueous Electrolyte Solutions: Effect of Carbonate Anions and Temperature on the Micellar Structure and Interaction. Volume 34, Number 3, January 30, 2001, pp 552–558.

In our recent paper,¹ eq 8 for the form factor of the micelles formed by the triblock copolymer was given as

$$F(Q) = N^2 b_s^2 F_s + 2N b_c^2 F_c + 2N(N-1) b_c^2 S_{cc} + 4N b_s b_c S_s$$

There are two typographical errors: the third term should read as $2N(2N-1) b_c^2 S_{cc}$ and S_s in the last term has to read as S_{sc} .

In this Correction we report a serious error in the last terms of eqs 7 and 8 in our paper.¹ The original equation developed by Pedersen and Gerstenberg² for the form factor for the diblock copolymer micelles has a N^2 in the last term, rather than N , as wrongly quoted in eq 7 in our paper¹ and the same mistake was propagated in the modified eq 8 for the triblock copolymer. The correct expressions for eqs 7 and 8 in our paper¹ are as follows:

$$F_{mic} = N^2 b_s^2 F_s + N b_c^2 F_c + N(N-1) b_c^2 S_{cc} + 2N^2 b_s b_c S_{sc} \quad (7)$$

$$F(Q) = N^2 b_s^2 F_s + 2N b_c^2 F_c + 2N(2N-1) b_c^2 S_{cc} + 4N^2 b_s b_c S_{sc} \quad (8)$$

We reanalyzed our SANS data by using the correct expression in eq 8 and found that the data could not be fit well without using an additional parameter, d in the correlation terms in both eqs 4 and 5 in our paper¹ as was originally demonstrated by Pedersen and Gersten-

berg.² The correct expressions in eqs 4 and 5 in our paper¹ are as follows:

$$S_{sc} = A(Q, R) B(Q, R_g) \sin(Q(R + dR_g)) / (Q(R + dR_g)) \quad (4)$$

$$S_{cc} = [B(Q, R_g) \sin(Q(R + dR_g)) / (Q(R + dR_g))]^2 \quad (5)$$

The parameter d in the above equations is a positive number and dR_g is the distance of the center of mass of the polymer chains in the corona from the surface of the core. The values for the different parameters obtained using the correct equations above (eqs 4, 5, and 8) are given in Table 1.

Comparison of the data in Table 1 with those in our paper¹ shows that the major effect of the correction is in the reduction of the core radius, R , and the aggregation number, N , but the other parameters are relatively unaffected. Consequently, some of the derived parameters using the values of core radii and aggregation number in the original paper¹ are incorrect.

The majority of the conclusions on the effects of the carbonate anions and the temperature on the micellization process described in our paper¹ stand correct, but the quantitative details require modification.

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References and Notes

- (1) Mao, G.; Sukumaran, S.; Beaucage, G.; Saboungi, M.-L.; Thiagarajan, P. *Macromolecules* **2001**, *34*, 552–558.
- (2) Pedersen, J. S.; Gerstenberg, M. C. *Macromolecules* **1996**, *29*, 1363.

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Table 1. Micellar Parameters from the Modeling of SANS Data of 5 wt % P(EO)₁₀₃P(PO)₃₉P(EO)₁₀₃ Solutions in D₂O

$T(^{\circ}\text{C})$	$R(\text{\AA})$	$R_g(\text{\AA})$	$R_{hs}(\text{\AA})$	N	ϕ	d
No Salt						
41	27.0 ± 1.6	28.9 ± 1.4	80.4 ± 0.5	15	0.124 ± 0.004	0.43 ± 0.07
52	29.9 ± 0.5	28.6 ± 0.2	87.5 ± 0.2	23	0.183 ± 0.002	0.62 ± 0.03
63	32.6 ± 0.4	28.2 ± 0.5	90.6 ± 0.2	30	0.177 ± 0.001	0.65 ± 0.02
73	33.8 ± 0.1	27.5 ± 0.2	91.4 ± 0.2	36	0.162 ± 0.001	0.70 ± 0.01
0.1 M K ₂ CO ₃						
26	23.3 ± 3.1	29.1 ± 2.8	79.7 ± 7.6	13 ± 3	0.030 ± 0.008	0.04 ± 0.36
42	30.4 ± 0.1	30.0 ± 0.3	89.6 ± 0.2	27	0.180 ± 0.001	0.68 ± 0.01
52	34.7 ± 0.2	30.7 ± 0.2	90.0 ± 0.2	37	0.160 ± 0.001	0.67 ± 0.01
61	38.7 ± 0.2	30.6 ± 0.1	80.6 ± 0.2	43	0.120 ± 0.001	0.61 ± 0.01
0.3 M K ₂ CO ₃						
26	27.5 ± 2.0	30.1 ± 1.9	84.5 ± 0.8	17	0.099 ± 0.004	0.45 ± 0.1
41	34.1 ± 0.1	29.9 ± 0.2	83.1 ± 0.2	36	0.153 ± 0.001	0.71 ± 0.01
52	38.5 ± 0.2	31.6 ± 0.3	78.6 ± 0.2	41	0.126 ± 0.002	0.64 ± 0.01
0.5 M K ₂ CO ₃						
26	31.7 ± 0.2	30.4 ± 0.3	78.6 ± 0.3	28	0.126 ± 0.002	0.73 ± 0.01