

CORRECTIONS

Bo You, Lei Shi, Nangeng Wen, Xiaohan Liu, Limin Wu,* and Jian Zi: A Facile Method for Fabrication of Ordered Porous Polymer Films. Volume 41, Number 18, 2008, pp 6624–6626.

In a recent paper,¹ there was our previous paper² that should have been referenced in the Introduction. To make the readers understand the two papers more clearly, there are big differences between these two papers which could be briefly summarized as follows:

1. The preparation methods for nanocomposite latex were totally different.

In the *J. Phys. Chem. B* paper,² the nanocomposite latex was synthesized by the in-situ emulsion polymerization method. Nanosilica particles, monomers, initiator, and water were mixed first, and then the polymerization was carried out to get the nanocomposite latex;

In the *Macromolecules* paper,¹ the nanocomposite latex was prepared by the blending method. That is, monomers, initiator, and water were mixed first, and then the polymerization was carried out to synthesize polymer latex; this latex was then blended with nanosilica particles to get the nanocomposite latex.

In the in-situ emulsion polymerization method, the Si–OH groups of the nanosilica surfaces could react with acrylic acid under reaction temperature first and then the C=C groups of acrylic acid on the surfaces of nanosilica particles polymerized with butyl acrylate and styrene. But this reaction did not happen in the blending method. As a result, two different preparation methods caused two nanocomposite latexes with different extent of interaction between nanosilica particles and polymer beads: the nanocomposite latex from the in-situ method should have

much stronger interaction between nanosilica particles and polymer beads than that from the blending method.

2. The structures and properties of the obtained ordered porous films are different.

It is the different extent of interaction that the nanocomposite latex from the blending method formed the ordered porous structure much more easily than that from the in-situ method. The former formed the ordered porous structure in the whole bulk, namely, three-dimensionally ordered porous structure. But for the film from in-situ method, the ordered porous structure was only observed on the surface of the film, namely, two-dimensionally ordered porous structure. Just due to the big difference in structure, the three-dimensionally ordered porous structure in the *Macromolecules* paper can display different colors, while the two-dimensionally ordered porous structure in the *J. Phys. Chem. B* paper cannot. In fact, for optical crystals, the three-dimensionally ordered structure is more important than the two-dimensionally ordered structure. Moreover, the three-dimensionally ordered porous structure has more potential applications than the two-dimensionally ordered porous structure.

References and Notes

- (1) You, B.; Shi, L.; Wen, N.; Liu, X.; Wu, L.; Zi, J. *Macromolecules* **2008**, *41*, 6624–6626.
- (2) You, B.; Wen, N.; Zhou, S.; Wu, L.; Zhao, D. *J. Phys. Chem. B* **2008**, *112*, 7706–7712.

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