a minimum geometry around 0.5 μm. A new optical stepper which utilizes shorter wavelength light is under development for this purpose. For significantly higher resolutions, however, the newer imaging methods such as those using ion beams, electron beams or X-rays will be required. These non-optical lithographic methods are considered in detail in Chapter 4.

Once a pattern has been established on a mask there is a need to transfer it to the underlying substrate. Dry gaseous processing is capable of transferring images more accurately than wet etching, although the latter is less expensive. Chapter 5 deals briefly with the physics and chemistry of low-temperature reactive plasmas and then goes on to consider their application in dry-etching processes.

Gaining an understanding of the interactions between the exposure tool, the exposure environment, the resist materials, and the process conditions is an essential step in optimizing lithographic processes. A variety of modelling and simulation methods are comprehensively reviewed in Chapter 6. The results presented are very illuminating and show how relationships can be successfully established between the process parameters and performance in spite of the complexities involved. This contribution makes a very valuable addition to the book, tying together nicely work mentioned in earlier chapters.

Finally Chapters 7 and 8 review recent advances which have been made in Japan and Europe respectively. Of the 68 references to recent Japanese work (mainly covering work published from 1985–1987) 31 of them are written in Japanese.

For workers with a direct interest in lithographic polymers and processes the book should prove invaluable, and can be expected to be widely cited. Although of a specialized nature, the book can also be recommended for reading by polymer scientists in general, since it contains a well-balanced blend of introductory, mainstream and advanced material.

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Erratum

'Glass transition behaviour of compatible polymer blends'

H. A. Schneider

Polymer 1989, **30**, 771–779

Equation (4) should read as follows:

$$\frac{T_{g2}-T_g}{\Phi_{f1}} = -\frac{\Psi_v^2(2A_{12}-A_{11}-A_{22})}{R(\ln\Psi_h+\Psi_v)}\Phi_{f1} - \frac{\Psi_v^2 2(A_{22}-A_{12})}{R(\ln\Psi_h+\Psi_v)} \quad (4)$$

Equation (11) should read as follows:

$$T_{g2}-T_g = -\frac{\Psi_v^2(2A_{12}-A_{11}-A_{22})}{R(\ln\Psi_h+\Psi_v)}\Phi_{f1}^2 - \frac{\Psi_v^2(-2A_{12}+A_{11}+A_{22})+\Psi_v^2(A_{22}-A_{11})}{R(\ln\Psi_h+\Psi_v)}\Phi_{f1} \quad (11)$$