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Compatibilization and Property Characterization of Polycarbonate/Polyurethane Polymeric Alloys

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There are errors among some of the acronyms that appear in the section on scanning electron microscopy (SEM) on page 618. The corrected section is printed below.

SEM

SEM micrographs in Figures 4–6 give additional information on the phase distribution and component adhesion of the fractured surfaces. In Figure 4, the transition from a morphology with a fracture typical of a homogeneously mixed blend [Fig. 4(a)] to an interpenetrating morphology [Fig. 4(b,c)] to a spherical domain morphology [Fig. 4(d)] is evident. At a higher magnification (Fig. 5), these morphologies are amplified, and in Figure 5(b–e), one can discern the fissures caused by the expansivity mismatch of the two components at cryogenic temperatures. For the 30/70 composition, quite a few of the PC globules were firmly embedded in the PU matrix. In Figure 6, fracturing at the ambient temperature shows a mixed glassy–ductile morphology for the 90/10 composition, the rubbery component being elongated [Fig. 6(a)] but anchored in the glassy matrix [Fig. 6(b)]. In Figure 6(c,d), one can observe that the composite globules of PU, although broken during deformation, remained attached to the PC matrix. Because of matrix elongation, the dewetting of the PU particles at their equator took place [see the gaps around the inclusions in Fig. 6(c)].

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