

Erratum

Dynamic fracture parameters and constraint effects in functionally graded syntactic epoxy foams [International Journal of Solids and Structures 40 (2003) 1885–1906] ☆,☆☆

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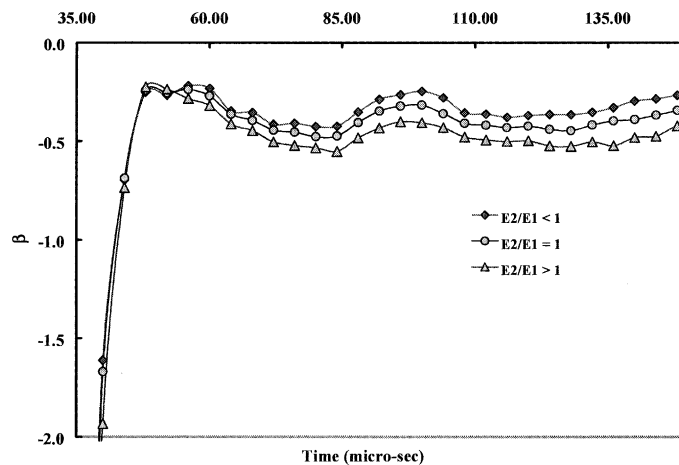
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The corresponding author offers the following corrections to the above referenced publication.

Figure 10(b):

The legend in the figure is incorrect. $E_2/E_1 > 1$ should have been $E_2/E_1 < 1$ and $E_2/E_1 < 1$ should have been $E_2/E_1 > 1$. That is, a crack tip located on the stiffer side of the FGM beam loses its negative constraint ($\beta = T\sqrt{(\pi a)/K_I}$) at much shorter crack lengths than the one with the crack on the compliant side. And, the algebraic values of β are consistently higher for the crack on the stiffer side compared to the one on the compliant side.

Figure 11:



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The constraint parameter histories shown in Fig. 11 of the original article are incorrect. The correct plots are shown above. As noted in the original article, $\beta(t)$ values are strongly negative initially. After the crack tip interacts with the stress waves, $\beta(t)$ values are more negative for the case with the crack on the compliant side ($E_2/E_1 > 1$) when compared to the one on the stiffer side $E_2/E_1 < 1$, similar to the static case. Hence, higher crack tip loading rate dK_I/dt for the case with crack on the compliant side occurs when constraint β is more negative or algebraically lower. Also, in view of these corrections, the observations made in the original article regarding $d\beta/dt$ is not meaningful. The authors regret overlooking these during the original work.