

where

$$F_2(x, y) = -\frac{1}{E^2} \left\{ Bx \pm \frac{B^*}{A^*} [-(A^*x + B^*y + C^*)^2 + D^2]^{1/2} \right\};$$

$$F_3(x, y) = -\frac{1}{E^2} \left\{ Ay \pm \frac{A^*}{B^*} [-(A^*x + B^*y + C^*)^2 + D^2]^{1/2} \right\}$$

while  $f(y)$ ,  $g(x)$  are arbitrary. Furthermore, since at any point of the body the von Mises-Hencky condition must be valid, we conclude that

$$f(y) = \pm 2[\kappa^2 - F_1^2(x, y)]^{1/2} - F_2(x, y) + F_3(x, y) + g(x). \quad (3.19)$$

Consequently, the stress-resultants can be written in the final form

$$\tau_{xy} = F_1(x, y); \quad \sigma_x = \pm 2[\kappa^2 - F_1^2(x, y)]^{1/2} + F_3(x, y) + g(x); \quad \sigma_y = F_3(x, y) + g(x) \quad (3.20)$$

in which  $F_1$  and  $F_3$  are given in Eqs. (3.17) and (3.18).

## The beneficial influence of matrix anisotropy in fiber composites

Acta Mechanica 97, 127–139 (1993)

P. S. Theocaris, Athens, Greece

Relation (1) should read as follows:

$$K_T = 1 = \left\{ 2 \left( \frac{E_L}{E_T} \right)^{1/2} + 2 \left( \frac{E_L}{2G_L} - \nu_L \right) \right\}^{1/2} \frac{b}{a}.$$