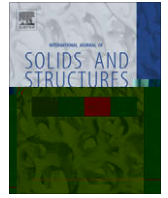




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ABSTRACT

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1. Introduction

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$$\begin{aligned}
 & \text{a. } \phi = \phi(s), \\
 & \text{b. } x = (x(s), y(s)) \\
 & \text{c. } \int_0^s q(\phi) ds \\
 & \text{d. } x(s) - x(0) + \int_0^s q(\phi) ds \quad (5)
 \end{aligned}$$

$$\begin{aligned}
 & \text{e. } q(\phi) = \dots
 \end{aligned}$$

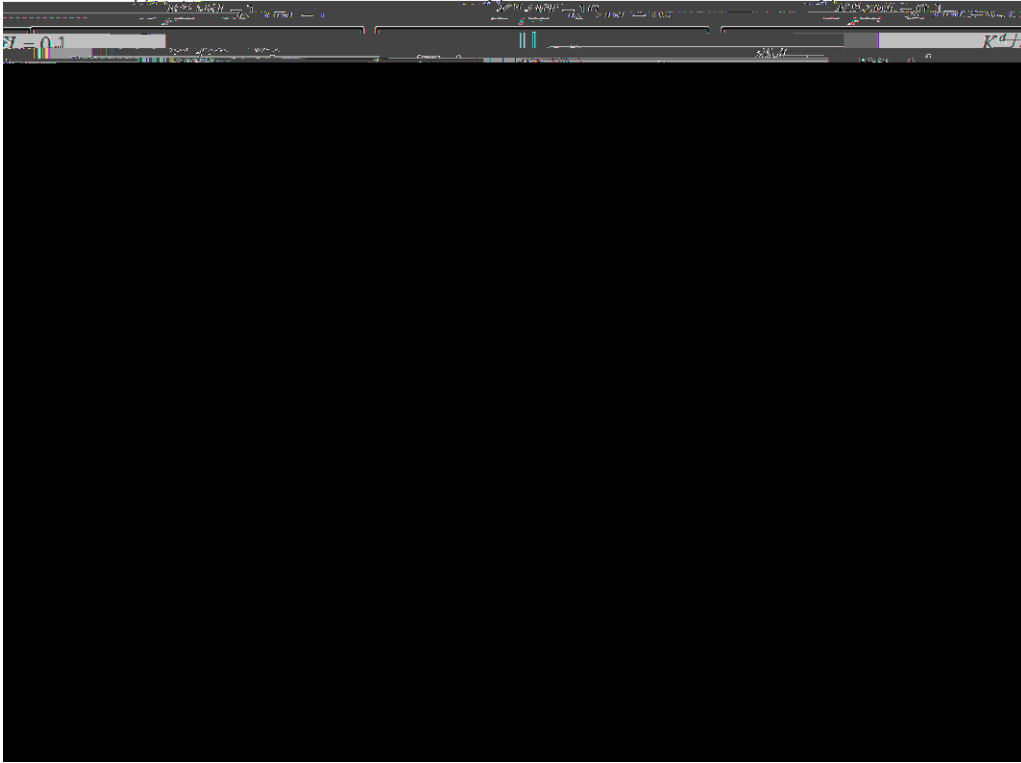


Fig. 3.

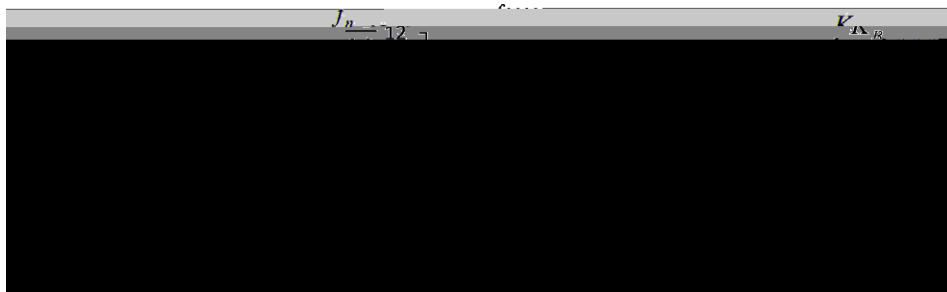


Fig. 4.

(y), $y = 0.5$, GA/EI , $d/ = 0.5a$, $K^D/EI = 1$, GA , y ,

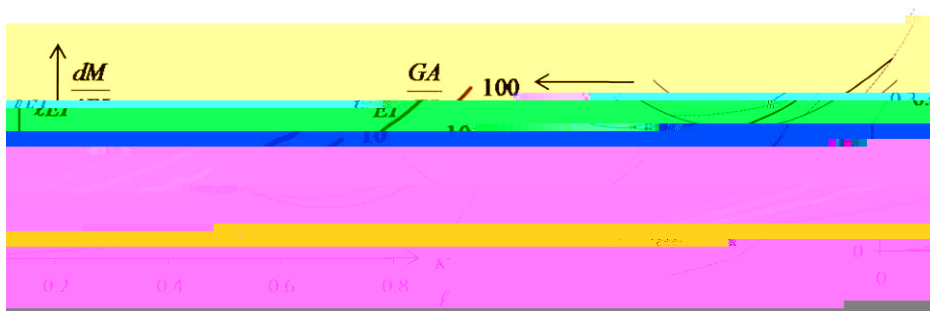


Fig. 5.

a a a : y a

• a ya a , a y a
a (a , 1994,).