**Beprog 150 An infinite domain with circular/elliptical hole under antiplane shear**

*r*

*a*

*b*

無窮場含一圓形或橢圓形孔洞受反平面剪力作用問題。其中與為無窮遠之外加應力，，。使用邊界積分方程式求解出場解表示式。

邊界上應力集中係數 ，

其中，。

|  |  |  |  |
| --- | --- | --- | --- |
|  | | Remote shear loading | |
| , | , |
| SCF | Elliptical case |  |  |
| Circular case | 2 | 2 |

其中。

|  |  |
| --- | --- |
|  |  |
| Circumferential stresses and under remote loading 。  (其中；，) | |

|  |  |
| --- | --- |
|  |  |
| Elastic strain energy density ratio under remote loading , 。(其中；；，) | |

**References**

1. Vlado A. Lubarda, On the circumferential shear stress around circular and elliptical holes. AAM. 85, 223–235 (2015).
2. Chao,C.K., Heh,T.Y. Thermoelastic interaction between a hole and an elastic circular inclusion. AIAAJ. 37, 475–481 (1999).