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A vibration analysis of a cracked micro-cantilever in an atomic force microscope by using transfer matrix method

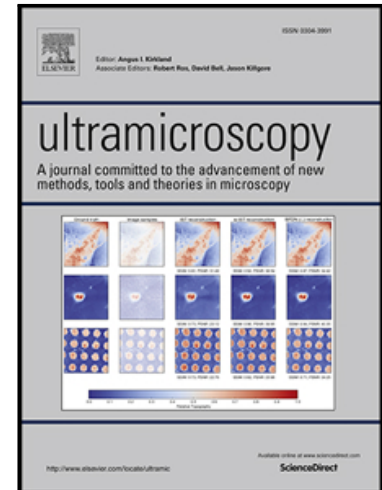
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Highlights

- Investigation of the effect of a crack in micro-cantilever of an atomic force microscope (AFM) on natural frequencies and sensitivities.
- Obtaining the characteristic equation using the transfer matrix method.
- The possibility of analyzing a multi-cracked cantilever applying the transfer matrix method.
- The advantages of a cracked micro-cantilever in performance of the AFM.

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