

The test of Acoustic Emission effects during Stress Corrosion Cracking of copper alloy used for marine screw propellers.

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Slow Strain Rate tests are mainly used to study Stress Corrosion Cracking mechanisms in materials. However, these tests are not suitable to separate crack initiation period and crack growth rate. Acoustic emission is an alternative technique for monitoring the SCC damage. The aim of this paper was to investigate the stages of material straining during slow growing tensile force. To see this process, the two sensors were mounted (Vallen Systeme GmbH) and the results were registered and recorded with the help of AMSY5. The tested material was the copper alloy used for marine screw propellers.