where (/ $)_0$ is the peak event rate at the start of the final acceleration at time $_0$

numerical results from the bulk shear model if γ* is reinterpreted as

$$\gamma^* = \left[\ ^2/\ \ (1 - \ \ )\ (\nu)\right] [\ \ /\rho\ \ ] \quad (5)$$

where is now the critical stress in tension.

4. Critical Strain for Bulk Failure

[11] Equations (3) and (5) imply that γ* is the ratio, per unit volume, of the energy for tensile failure [^{2}/ (1 −) (ν)] to a rock's internal energy (/). This interpretation, however, does not explain why γ* should show a restricted range of values. From classical thermodynamics [, 1992], atoms in solids have an average potential energy, associated with elastic deformation, of (1/2)(/) for each of their three components of motion. Because the strain at failure, ε, can be defined as the ratio, per unit volume, of [Strain Energy for Fracture] to [Initial Potential Energy], it follows that ε = (2 bcndiation,

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