

they have been put. Data used in the calculations are no more than approximations.

Within the framework outlined, however, the failure model has shown a consistency relative to experimental verification, at least to the extent presently possible, and to the nature of events as they occur within the earth. Additional experimentation to higher pressures and temperatures is needed for further verification.

As presently developed, the model suggests that earthquakes are caused by shear-induced catastrophic failure of rock and that magnitudes are primarily a function of the volume of failure and, for a planar failure, of its surface area. The periodic occurrence of earthquakes within seismically active regions would be related to variable functions of strength, stress, and time.

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