

Reliability Physics/Physics-of-Failure Analysis

What is it?

Reliability Physics is a technique for identifying and understanding the physical processes and mechanisms of failure. Currently, the terminology "Physics-of-Failure" (PoF) is widely used. It is synonymous with reliability physics.

What's the payoff?

All materials, manufacturing and assembly processes can be characterized. Potential component level failure sites and mechanisms can be identified and their likelihood of occurrence quantified. Unacceptable failure modes/mechanisms can be proactively mitigated.



How can we help?

- Define a Reliability Program strategy that optimizes the advantages of PoF approaches within available resources
- Assist in the definition, selection and use of appropriate materials, parts and design configurations that meet the characteristics and physical stresses of the environment
- Identify or tailor existing relevant PoF models, or develop customized new models, that characterize component, product or system life
- Perform analyses and formulate simulations/tests that address the predominant failure modes/mechanisms of existing or future designs/processes
- > Provide training on how to model, predict, collect/analyze data and apply other PoFbased techniques to benefit your specific products, processes and applications