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6.2.3 Influences on Microstructure6.3 Effects of Surface Layer Stability on Behavior during Cyclic Loading; 6.3.1 Basic Results; 6.3.2 Effects on Cyclic Deformation Behavior; 6.3.3 Effects on Crack Initiation Behavior; 6.3.4 Effects on Crack Propagation Behavior; 6.3.5 Effects on Fatigue Behavior; 7 Summary; Acknowledgments; Index

Sommario/riassunto

The only comprehensive, systematic comparison of major mechanical surface treatments, their effects, and the resulting material properties. The result is an up-to-date, full review of this topic, collating the knowledge hitherto spread throughout many original papers. The book begins with a description of elementary processes and mechanisms to give readers an easy introduction, before proceeding to offer systematic, detailed descriptions of the various techniques and three very important types of loading: thermal, quasistatic, and cyclic loading. It combines and correlates experimental and