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## Sommario/riassunto

Conventional ultrasonic methods based on ultrasonic characteristics in the linear elastic region are mainly sensitive to mature defects but are much less responsive to micro-damage or incipient material degradation. Recently, nonlinear ultrasonic characteristics beyond the linear ultrasonic amplitude range have been studied as a method for overcoming this limitation, and hence, many researchers are engaged

in theoretical, experimental, and various application studies. However, the nonlinear ultrasonic characteristics are quite exacting compared to the linear phenomena so that they require vast experience and high proficiency in order to obtain proper experimental data. Actually, many researchers, especially beginners including graduate students, have difficulty in reliably measuring nonlinear ultrasonic characteristics. This book provides key technological know-how from experts with years of experience in this field, which will help researchers and engineers to obtain a clear understanding and high quality data in the nonlinear ultrasonic experiments and applications.

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