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Titolo	Acoustic Emission : Fracture Detection in Structural Materials // by Valentyn Skalskyi, Zinoviy Nazarchuk, Olena Stankevych
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Nota di contenuto	Macrofracture of Structural Materials and Methods of Determining its Type -- Mathematical Models for Displacement Fields Caused by the Crack in an Elastic Half-Space -- Energy Criterion for Identification of the Types of Material Macrofracture -- Evaluation of the Types and Mechanisms of Fracture of Composite Materials According to Energy Criteria -- Ranking of Dental Materials and Orthopedic Constructions by their Tendency to Fracture -- Rating of Hydrogen Damaging of Steels by Wavelet Transform of Magnetoelastic Acoustic Emission Signals.
Sommario/riassunto	The book presents topical theoretical and experimental studies for developing advanced methods of detecting materials fracture and assessing their structural state using acoustic emission. It introduces new mathematical models characterizing the displacement fields arising from crack-like defects and establishes a new criterion for

classifying different types of materials fracture based on specific parameters obtained from wavelet transforms of acoustic emission signals. The book applies this approach to experimental studies in three types of materials—fiber-reinforced composites, dental materials, and hydrogen-embrittled steels.

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