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Nota di contenuto	1. Organic Matrix of Enamel and Dentin and Developmental Defects -- 2. Fluoride and Other Trace Elements in Dental Hard Tissue -- 3. Developmental Dental Defects and Tooth Wear: Pathological Processes Relationship -- 4. Failure of Tooth Development: Prevalence, Genetic Causes and Clinical Features -- 5. Influence of Elements on Gene Expression in Human Teeth -- 6. Gene and Cell Therapy in Dental Tissue Regeneration.
Sommario/riassunto	The unique tissues of human teeth, enamel, and dentin have been studied by scientists to understand their structure, physical and chemical properties, and the developmental machinery behind these extraordinary properties. During the developmental process, genetic, and environmental factors or the interplay between them may cause defects in dental hard tissues, impairing their biology and function. These defects have long been studied to provide better dental care and to find novel treatment options. Understanding the mechanical, chemical, and structural differences in developmental dental defects is also crucial for a routine dental practice, as many of these lesions do not have pathognomonic properties. This book focuses on the qualitative and quantitative properties of the sound enamel and dentin as well as the affected human tooth structures. It examines how genetics impact oral and dental health, the role of fluoride and trace elements in mineralization and the related clinical implications, and the impact of different approaches to diagnose and treat these

developmental disorders.