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Titolo	The Hair Fibre: Proteins, Structure and Development / / edited by Jeffrey E. Plowman, Duane P. Harland, Santanu Deb-Choudhury
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Nota di contenuto	Fibre Ultrastructure -- The Follicle Cycle in Brief -- Diversity of Trichocyte Keratins and Keratin -- Evolution of Trichocyte Keratins -- Evolution of Trichocyte Keratin Associated Proteins -- Structural Hierarchy of Trichocyte Keratin Intermediate Filaments -- Trichocyte Keratin-Associated Proteins (KAPs) -- Introduction to Hair Development -- Environment of the Anagen Follicle -- Development of Hair Fibres -- Macrofibril Formation -- Crosslinking Between Trichocyte Keratins and Keratin Associated Proteins -- The Thermodynamics of Trichocyte Keratins -- Oxidative Modification of Trichocyte Keratins.
Sommario/riassunto	Hair is a sophisticated bio-based material, whether it is on a human head or part of a mammalian coat. In particular, the role of the proteins in the follicle, integral to hair development, are not well understood. This new book seeks to integrate the latest research in proteomic and morphological studies into a coherent description of fibre development from the follicle to its final mature, keratinized form. To achieve this the book has been divided into three sections. The first describes the keratins, their associated proteins and how they assemble into intermediate filaments in the fibre. The second covers the latest information on the morphological changes that occur from the base of the follicle, through the keratinization process to the mature fibre and the role that proteins play in this. The final section delves into fundamental fibre properties such as crosslinking, thermal and oxidative modifications and how these affect the mature fibre. The

editors of this book are internationally recognised for their work in the area of mammalian hair, Jeffrey Plowman for his knowledge of the proteomics of the fibre, Santanu Deb-Choudhury for his work in the area of crosslinking in the fibre and Duane Harland for his understanding of the morphological development of the fibre. Together they have collected material from other international experts: Leopold Eckhart and Florian Ehrlich for their knowledge of the evolution of keratins; Dong Dong Wu and David Irwin for their studies on keratin associated protein evolution; David Parry and Bruce Fraser for their work on keratin and keratin associated protein structure and assembly; John McKinnon for his studies on macrofibril formation; Crisan Popescu for the thermodynamics of keratins; and Jolon Dyer for his oxidative modification studies of keratins. This book provides a comprehensive introduction, and useful reference guide to hair biology and will be of interest to both scientists and technologists.