

<<生物化学>>

图书基本信息

书名：<<生物化学>>

13位ISBN编号：9787117108249

10位ISBN编号：711710824X

出版时间：2009-3

出版时间：魏晓东 人民卫生出版社 (2009-03出版)

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页数：343

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内容概要

《生物化学》是双语教材，总结多年教学中沉淀的经验，按照医学各专业的特点，将生物化学划分为生物大分子的结构与功能、物质代谢、基因表达和专题篇4个部分，努力构建系统化课程，从学生兴趣、认知规律和探究方便出发合理设计教材的结构，注意联系实际，适度扩大学生的知识面和应用能力，突出教材中知识结构的科学化。

并以鲜活灵动的色彩、图文并茂的版面、熟悉的例子吸引刚入门的医学生，让学生感受课程学习的趣味性和挑战性，将是一系统性强、可读性强、深受学生喜爱的教材。

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插图：which is a destabilizing influence. As a result, a helices are often capped at the N-terminal end by a negatively charged amino acid (like glutamic acid) in order to stabilize the helix dipole. Less common (and less effective) is C-terminal capping with a positively charged amino acid like lysine. This is because of a structural coincidence: The diameter of the α -helix is 120 nm, the same as the width of the major groove in B-form DNA.

2.2.2 β -pleated sheet After the discovery of helix, Panling and Corey discovered that polypeptide chains could fold in another way, which they named beta-pleated sheet (beta is second, alpha was first) . The β sheet (also called 13-pleated sheet) is a commonly occurring form of regular secondary structure in proteins, first proposed by Linus Panling and Robert Corey in 1951. The β -pleated sheet is composed of two or more straight chains that are hydrogen bonded side by side (Fig.1-9) . If the amino termini are on the same end of each chain, the sheet is termed parallel, and if the chains run in the opposite direction (amino termini on opposite ends) , the sheet is termed antiparallel. In this case more H-bonding is achieved by stretching out the polypeptide chain, and laying it side by side to form H-bonds between lengths of polypeptide chain. Thus providing both inter and intra-H bonds. The structure is called a beta-pleated sheet because of the serrated zig appearance when viewed from the side. Substantially different from the α -helix in that it is a sheet rather than a rod and polypeptide chain is fully stretched rather than tightly coiled as in helix. The H-bonds are formed from amino and carboxyl groups as for α -helix, but bonding also occurs between different strands of a polypeptide. The strands can run in opposite directions to give antiparallel beta-pleated sheets or they can run in the same direction to give parallel beta-pleated sheets. Beta sheets occur in variable amounts in the polypeptide chains of globular proteins.

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编辑推荐

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