

<<生物化学原理>>

图书基本信息

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## <<生物化学原理>>

### 内容概要

《生物化学原理(影印版)》因其对最基本的生物化学原理进行精确、流畅、清晰的描述在国外受到广泛的赞扬。

作者Robert从事生物化学教学已30余年，具有丰富的教学经验。

全书共分为四大部分，包括导论、生物大分子的结构和功能、代谢动力学和遗传物质，章节之间保持较好的连贯性。

此版还增加了许多读者感兴趣的内容，并阐述了相关的最新研究进展。

在每一章后面都附有较全面的练习题，包括简答题、选择题和论述题，而且在书后对练习题做了详尽的解答，可以帮助学生更好地掌握生物化学基本原理。

《生物化学原理(影印版)》适合生物学类专业本科学生和研究生作为双语教材使用，并可供相关的研究工作者参考。

#### 作者简介

作者：(美国)H.R.Horton (美国)L.A.Moran H.Robert Horton , Dr Horton who received his Ph.D from the University of Missouri in 1962, is William Neal Reynolds Professor Emeritus and Alumni Distinguished Professor Emeritus in the Department of Biochemistry at North Carolina State University, where he served on the faculty for over 30 years. Most of Professor Horton's research was in protein and enzyme mechanisms.

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## 章节摘录

插图：B. The Endoplasmic Reticulum and Golgi Apparatus A network of membrane sheets and tubules called the endoplasmic reticulum (ER) extends from the outer membrane of the nucleus. The aqueous region enclosed within the endoplasmic reticulum is called the lumen. In many cells, part of the surface of the endoplasmic reticulum is coated with ribosomes that are actively synthesizing proteins. As synthesis continues, the protein is translocated through the membrane into the lumen. In the case of membrane-spanning proteins, part of the protein remains embedded in the membrane after it is released from the ribosome. Proteins destined for export from the cell are completely extruded through the membrane into the lumen, where they are packaged in membranous vesicles. These vesicles travel through the cell and fuse with the plasma membrane, releasing their contents into the extracellular space. The synthesis of proteins destined to remain in the cytosol occurs at ribosomes that are not bound to the endoplasmic reticulum. Many enzyme systems involved in the metabolism of lipids are concentrated in regions of the endoplasmic reticulum that have no attached ribosomes. In many species, a complex of flattened, fluid-filled, membranous sacs called the Golgi apparatus is often found close to the endoplasmic reticulum and the nucleus. Vesicles that bud off from the endoplasmic reticulum fuse with the Golgi apparatus. The contents of the vesicles may be chemically modified as they pass through the layers of the Golgi apparatus. The modified products are then sorted, packaged in new vesicles, and transported to specific destinations inside or outside the cell.

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