

全国高等学校配套教材

供基础、预防、临床、口腔医学类专业用

Basic Chemistry for  
Higher Medical Education

# 医学基础化学

主 编 魏祖期

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## Preface

Chemistry is an integral part of medical curricula. As a component of chemistry, basic chemistry and organic chemistry are now required courses in higher medical education at most medical schools in China. This pedagogical requirement certainly makes the basic chemistry course a very broad and general one, covering the basic essential elements of inorganic chemistry, physical and colloid chemistry, structural chemistry and analytical chemistry, as well as the latest developments in interdisciplinary chemistry, medical science and life science. Thirty years of educational research has made the contents of our basic chemistry courses more mature and rational. The textbook of "Basic Chemistry", published by the People's Medical Publishing House, clearly elucidated this point.

With the development of higher medical education in our country, English or bilingual (English and Chinese) medical teaching is popularized, and the population of international students in some medical schools and universities is increasing, so it is expected that a basic chemistry textbook in English be necessary for the basic chemistry teaching in these schools. It is for this purpose that we have written this English textbook "Basic Chemistry for Higher Medical Education" (医学基础化学). This textbook, with reference to the "Basic Chemistry (the 7<sup>th</sup> Edition)" (基础化学 / 第7版) published by the People's Medical Publishing House as a state-level planned textbook for normal higher education (普通高等教育“十一五”国家级规划教材), will surely serve as an invaluable resource for English and bilingual teaching.

The authors who have contributed to this textbook are those with extensive experience in bilingual and/or English teaching both in China and abroad. This textbook is the integral result of their teaching experience, based on careful reading of the "Basic Chemistry (the 7<sup>th</sup> Edition)" textbook and their knowledge of materials from similar overseas textbooks.

Prof. Kaiping Zhang (张开平) in Foreign Language School of Huazhong University of Science and Technology examined and approved some chapters of the book, and revised the English rhetoric. Dr. Ford Katirai (Oxon) gave his suggestions and editorial assistance. We give our sincere thanks to them.

We will be responsible for the errors in the book, if there is any. We also sincerely hope the readers to point out any errors and to put forward their constructive criticisms and suggestions for the improvement of the future editions.

**Authors**  
**May 2010**

## 前 言

化学是医科学生的一门重要基础课。我国大部分高等医学院校开设了基础化学和有机化学两门课程来完成高等医学教育中的化学教育。这样的教学目标使得基础化学课程的内容十分宽泛,总体来说,它必须包含无机化学、物理化学与胶体化学、结构化学和分析化学中的必需基础知识,以及化学与医学和生命科学交叉领域发展起来的必要知识。经过 30 年的探索改革和教学实践,基础化学已经有了比较成熟合理的教学内容。人民卫生出版社出版的《基础化学》教材就典型地反映了基础化学课程的沿革和发展。

随着我国高等医学教育发展的需要,全英语教学和双语教学已经比较普遍,而且在国际交流中,一些医学院校接收的国外留学生人数增加,有一本合适的英语基础化学教材成为许多学校的共同愿望。出于这个目的,我们编写了这本《医学基础化学 /Basic Chemistry for Higher Medical Education》。这本教材与人民卫生出版社出版的普通高等教育“十一五”国家级规划教材《基础化学(第 7 版)》配套,适合我国的医学教育特点,便于英语教学和对照进行双语教学。

参加编写这本教材的老师一般都有丰富的英语教学和双语教学经验,也有目前正在国外的留学人员。他们参加编写了或仔细研读了《基础化学(第 7 版)》,吸取国外相近教材的经验,对照编写了这本书的内容。

感谢华中科技大学外语学院张开平教授,他修改审定了本书部分章节的英语修辞。

感谢 Ford Katirai 博士,他审读了这本教材的部分内容并提出了很好的意见。

希望读者对教材使用中发现的不足给予批评指正。

编者

2010 年 5 月

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