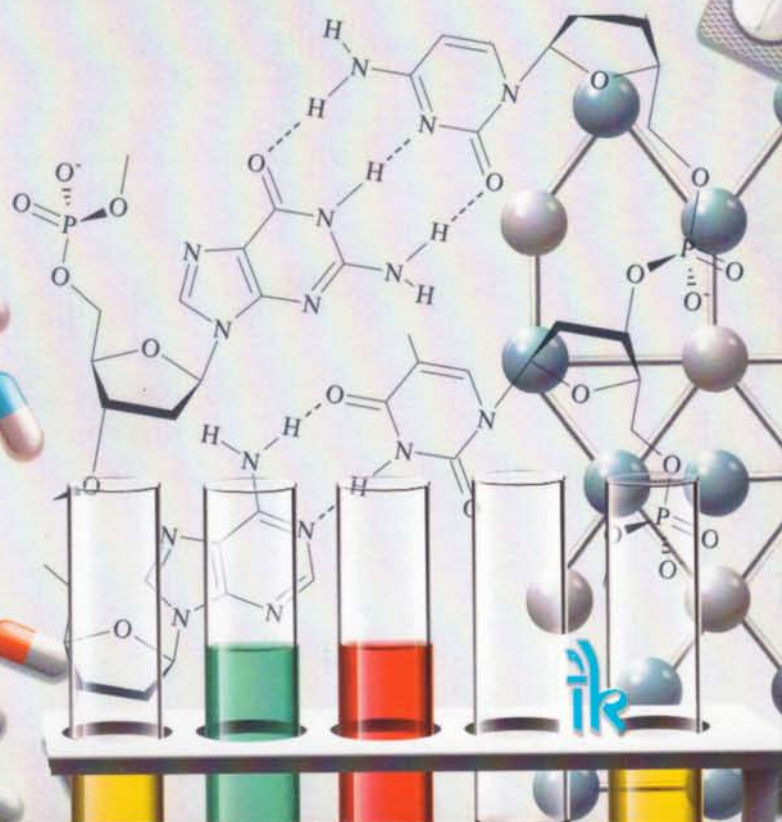


The background of the cover is a light blue gradient, populated with various pharmaceutical-related illustrations. At the top, there are several syringes and capsules. On the left, a large Erlenmeyer flask contains an orange liquid. Scattered throughout are numerous capsules in orange and white, and white tablets, some in blister packs. In the bottom left, there are more capsules and a small vial. The central text is in a dark blue serif font. Below the title, the authors' names are in a smaller black serif font. The bottom right features a complex chemical structure of a nucleotide, showing a sugar-phosphate backbone and a nitrogenous base. Below this structure is a rack of five test tubes containing liquids of different colors: yellow, green, red, and two clear ones. A small blue logo with the letters 'ik' is positioned near the test tubes.

Pharmaceutical Chemistry

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Krishan Kumar



Pharmaceutical Chemistry

Preface

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Pharmaceutical Chemistry

Pharmaceutical Chemistry has always been an exciting branch of Organic Chemistry particularly correlating the theoretical outcomes with synthetic methods and stability of the molecule designed. Pharmaceutical Chemistry comprises the knowledge of chemical biology, computational chemistry, medical, enzymology and structural biology which is useful for understanding the scientific aspects of the drug discovery programmes of new therapeutic agents. The emphasis is on the chemistry reactions and interactions involved in a drug therapy.

The present book is designed for the undergraduate students pursuing BSc Chemistry, BSc Chemistry (H), BSc (Physical Sciences) and B. Pharma. It covers the complete syllabus related to Pharmaceutical Chemistry including chemical and biological interfaces, and various aspects of pharmaceutical chemistry pertaining to the drugs development. The fundamental aspects of the synthesis, manufacturing, usage, and mode of action of drugs and other biological aspects are dealt with in detail.

One chapter is dedicated to the medicinal importance of Curcumin, Neem, Vitamin C, Ranitidine, Ginger, Tulsi, Garlic and Ajwain. At the end multiple-choice questions with answers are also given.



Mukesh Chandra Joshi, Assistant Professor, Motilal Nehru College, University of Delhi, obtained his PhD in 2008 from the University of Delhi. He has worked as a Research Scientist in the pharmaceutical industry. In April 2010, he joined Prof. Timothy J. Egan's research group at the Cape Town University, South Africa as a Postdoctoral Fellow. Dr. Joshi has published numerous research articles in national and international journals including *Journal of Medicinal Chemistry* (ACS) and *European Journal of Medicinal Chemistry* (ELSEVIER), book chapters, online e-contents and participated in many conferences. He is serving as a reviewer of many national and international journals. His areas of interest are bio-organic medicinal chemistry, natural product chemistry, nano-medicine, and drug discovery and development.



Krishan Kumar is Assistant Professor, Motilal Nehru College, University of Delhi, New Delhi. He obtained his doctoral degree from CSIR-IGIB in 2014. His PhD was focused on chimeric opioid peptides and their biological studies. He has published his research in peer reviewed journals of international repute, e.g., *J. Neurosci. Res.*, *Euro. J. Pharmacol.*, *World J. Gastroenterol.*, etc. His research is focused on CNS active peptides and assessment of related up/down-regulatory changes developed.



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