DESCRIPTION

A COMPLETE, UP-TO-DATE RESOURCE OF INFORMATION ON MORE THAN 150 FLUORESCENT DYES AND PROBES

Handbook of Fluorescent Dyes and Probes is the most comprehensive volume available on the subject, covering all the available dyes and probes known to date in the literature for uses in various fields. Top dye expert Dr. Ram Sabnis organizes the compounds alphabetically by the most commonly used chemical name. He presents an easy-to-use reference complete with novel ideas for breakthrough research in medical, biological, chemical, color, material, physical and related allied fields. The ease of use of the handbook is further enhanced by various appendixes provided at the end of the book to conveniently and easily locate the dye as per the reader's need.

This is the first book to give the CAS registry numbers, chemical structure, Chemical Abstract (CA) index name, all other chemical names, Merck Index number, chemical/dye class, molecular formula, molecular weight, physical form, solubility, melting point, boiling point, pKa, absorption maxima, emission maxima, molar extinction coefficient, and quantum yield of fluorescent dyes and probes, as well as to provide access to synthetic procedures (lab scale and industrial scale) of dyes and probes in a single source. This user-friendly handbook also features references on safety, toxicity and adverse effects of dyes and probes on humans, animals and the environment, including:

- acute/chronic toxicity
- aquatic toxicity
- carcinogenicity
cytotoxicity
ecototoxicity
genotoxicity
hematotoxicity
hepatotoxicity
immunotoxicity
marine toxicity
microbial toxicity
mutagenicity
nephrotoxicity
neurotoxicity
nucleic acid damage
oral toxicity
phototoxicity
phytotoxicity
reproductive toxicity
skin toxicity

Containing imaging/labeling applications, biological/medical applications and industrial applications, Handbook of Fluorescent Dyes and Probes is a convenient, vital resource for industrial and academic researchers, and a valuable desktop reference for medical professionals, lab supervisors, scientists, chemists, biologists, engineers, physicists, intellectual property professionals, students, and professors.

• Includes all fluorescent dyes & probes known to date and provides a complete, up-to-date library of information in one reference/handbook

• Includes more than 300 fluorescent dyes & probes organized alphabetically by the commonly used Chemical Name
• Provides access to synthesis procedures (lab scale and industrial scale) of fluorescent dyes & probes

• First book to provide references on safety, toxicity and adverse effects of fluorescent dyes and probes on humans, animals, and the environment

• User-friendly and convenient resource guide for chemical, biological, medical, and intellectual property professionals in a broad range of disciplines

ABOUT THE AUTHOR

R. W. SABNIS, PhD, is a registered Patent Agent with U.S. Patent and Trademark Office (USPTO). Dr. Sabnis is one of the world’s foremost experts in dyes, inventing world’s first colored bubbles (non-staining) and color changing dye system with many applications. He has immensely contributed to color science and technology for the past 25 years, particularly, dyes for biomedicine, personal care products, health/beauty products, electronics (displays, OLEDs), inks, paints, plastics, textiles and toys/bubbles. He has over 200 publications which include books, book chapters, encyclopedia chapters, patents, reviews, papers, and symposia presentations. He is also an inventor of several US and international patents (issued/published). Dr. Sabnis is the recipient of Pfish Award, Perkin Innovation Award, Grand Innovation Award, Competitive Spirit Award and Best Doctoral Thesis Award. Dr. Sabnis is awarded the Gold Medal for “Outstanding service to the coloration industry” by the Society of Dyers and Colourists, Bradford, U.K. He has written two books on color chemistry, namely, *Handbook of Biological Dyes* and Stains and *Handbook of Acid-Base Indicators*.

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