

The Complete Technology Book on Dyes & Dye Intermediates (2nd Edition)

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Dyeing is the process of imparting colours to a textile material. Different classes of dyes are used for different types of fiber and at different stages of the textile production process, from loose fibres through yarn and cloth to completed garments. Dyes are any substance, natural or synthetic, used to colour various materials, and have wide industry applications ranging textiles, leather, and food, paper etc. They are available in widest ranges for different applications like acid dyes for wool and nylon, direct dyes for cotton, etc. Dyes and its intermediates are specifically used to make the textiles decorative and attractive. At present, India contributes about 6% of the share in the global market with a CAGR of more than 15% in the last decade. The organized sector dominates, with 65% share of the total market, while the unorganized sector controls the remaining 35% of the market. The demand for dyes and dye intermediates is expected to grow at around 6%, backed by strong demand from the textiles, leather, and inks industries. Dyestuff sector is one of the core chemical industries in India. It is also the second highest export segment in chemical industry. The major users of dyes in India are textiles, paper, plastics, printing ink and foodstuffs. The textiles sector consumes around 80% of the total production due to high demand for polyester and cotton, globally. Globally the dyestuffs industry has seen an impressive growth.

This book majorly deals with classification & nomenclature of dyes, commercial form of dyes, properties, formulae, applications of dyes, manufacturing process of dye intermediates, plant and machinery used etc. The major contents of the book are diazotization, coupling, azo coupling, oxidative coupling, anthraquinone dyes; disperse dyes, dispersion, effect of dispersing agents etc.

Due to increasing growth of textile industries, demand of dyes and dye Intermediates are also increasing very fast in domestic as well as in global market. The book gives stress on syntheses of different types of dyes and dye Intermediates. The formulae and processes have been described in very proper way. Professionals, corporate houses and new entrepreneurs will find this book very useful.

1. The Dyes and Dye Intermediate Industry

What are Dyes and Dye Intermediates?

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Methods of Analysis of Azo Dyes

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Reactive Systems Based on Nucleophilic Substitution

Reactive Systems Based on Nucleophilic Addition

Reactive Systems Based on Both Nucleophilic

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Substitution Products

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2-Chloroanthraquinone

2-Amino Anthraquinone

1-Hydroxy Anthraquinone

1-Hydroxy Anthraquinone

1:4 Dihydroxy Anthraquinone (Quinizarine)

1:4 Diamino Anthraquinone

1-Amino-2-Methyl-Anthraquinone

2-Methyl Anthraquinone

1-Nitro-2-Methylantraquinone

1-Amino-2-Methylantraquinone

Benzanthrone

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Bromobenzanthrone

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H Acid
Laurant's Acid
Metanilic Acid
Orthanilic Acid
R Salt/R Acid
Sulfanilic Acid
Tobias Acid
Vinyl Sulfone
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o-Phenylene Diamine
o-And P-Nitrochlorobezenc
p-Phenylencdiamnie
1-Phenyl 3-Methyl 5-Pyrazolonc
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J-Acid
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Furnace
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Dye Centrifuge Machine
Dyes Filter Press
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Dyes Pulverizer Machine
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Diesel Generator Set
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Flow Chart & Diagram

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