

# The Complete Book on Water Soluble Gums and Resins

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Resins, gums and latex are almost ubiquitous in the plant kingdom and many of them continue to play an important role in our daily lives. Numerous plants produce some kind of resin, latex or gum, but only a few are commercially important today, even though their uses and applications are truly manifold. They have been used as adhesives, emulsifiers, thickening agents, they are added to varnishes, paints and ink; they lend their aromas to perfumes and cosmetics and even play a role in pharmacy and medicine. Gums are viscous substances which are secreted by the bark of certain trees. Usually transparent (but sometimes slightly tinted) they contain a mucilage which when dissolved in water makes the latter become viscous. When this mucilage is dissolved in water it can be made to precipitate with alcohol. Resins, on the other hand, are gluey and viscous substances which may be whitish, brownish, or red and are secreted by certain trees when they are incised. Resins contain an essence and are usually not water soluble. Most commonly found types of plant exudates are chemically completely different to gums. Several acacia species are important economically. True gums are complex organic substances mostly obtained from plants, some of which are soluble in water and others of which, although insoluble in water, swell up by absorbing large quantities of it. They are used in adhesives, pharmaceuticals, inks, confections, and other products. Resins are terpene based compounds. Terpenes constitute one of the largest groups of plant chemicals and they can be very complex. They are not water soluble, but can be either oil soluble or spirit soluble, depending on their specific chemical composition. Worldwide interest and activity in gums and resins has grown dramatically in the last few years. Governments, environmentalists, research institutions and other interest groups are among those who have begun to push for stronger support for gums and resins as a way to meet a range of economic, social and environmental goals.

Some of the fundamentals of the book are photosynthesis and metabolism of carbohydrates, occurrence, properties and synthesis of the monosaccharides, nitrogen derivatives, carbohydrates in parenteral nutrition, essential carbohydrates, ethers, anhydro sugars and unsaturated derivatives, constitution of nicotinic acid and of nicotinamide, industrial methods of preparing nicotinic acid and nicotinamide, general physiology, metabolism and mechanism of the vitamin action etc.

This book gives a complete insight of water soluble gums and resins that are used in day to day life in various Industries. It is an invaluable resource to all its readers, students, scientist, new entrepreneurs, existing industries and others.

## Contents

### 1. CARBOHYDRATES

## 1. PHOTOSYNTHESIS AND METABOLISM OF CARBOHYDRATES

### Photosynthesis

#### Introduction

#### Structural Aspects of the Photosynthetic Apparatus

#### Kinetic Studies on Photosynthesis

#### Bacterial Photosynthesis

#### The Hill Reaction

#### The Path of Carbon in Photosynthesis

#### The Biosynthesis of Carbohydrates by Plants

#### Monosaccharides

#### Oligosaccharides

#### Starch

#### Sugar Alcohols

#### Sugar Acids

#### Carbohydrate Biochemistry

#### Pathways for the Metabolism of Carbohydrates

#### Interconversion of the Sugars

## 2. OCCURRENCE, PROPERTIES AND SYNTHESIS OF THE MONOSACCHARIDES

### Naturally Occurring Monosaccharides

#### Origin and Preparation of Some Naturally Occurring Monosaccharides

#### Synthetic Sugars

#### Complete Synthesis of the Sugars

#### Methods for Lengthening the Carbon Chain of the Sugars

#### Methods for Shortening the Carbon Chain of Sugars

#### Methods Based on Changing the Configuration of Other Sugars

#### Methods for the Synthesis of Deoxysugars

#### Preparation of Ketoses by Biochemical Oxidation of Alcohols

#### Aldose to Ketose Conversion Utilizing the Osones

#### Methods for Isotope-Labeled Sugars

## 3. OLIGOSACCHARIDES

### Synthesis of Oligosaccharides

#### Rearrangement and Degradation of Oligosaccharides

#### Condensation of Two Monosaccharide Units

#### Determination of Structure

#### Ease of Acid Hydrolysis

#### Preparation, Properties, and Structures of Some Oligosaccharides of Natural Origin

#### Miscellaneous Disaccharides

#### Tri-, Tetra-, and Pentasaccharides

#### Miscellaneous Tri- and Tetrasaccharides

#### Enzymic Synthesis of Oligosaccharides

#### Synthesis of Sucrose by the Mechanism of Phosphorolysis

#### Synthesis of Analogs of Sucrose and Maltose by Sucrose and Maltose Phosphorylases

#### Synthesis of Disaccharides by Transglycosidation Through the Action of Sucrose Phosphorylase

#### Synthesis of Oligosaccharides by Transglycosidation Through the Action of Hydrolytic Enzymes

#### Miscellaneous Oligosaccharides

## 4. NITROGEN DERIVATIVES

### Glycosylamines, Nucleic Acids and Hydrolysis Products, Hydrazones, Osazones, Oximes, Amino Sugars, etc.

#### Glycosylamines

#### Unsubstituted Glycosylamines

#### N-Substituted Glycosylamines

Nucleotides  
 Preparation and Structures  
 Nucleoside Di- and Triphosphoric Acids  
 Biologically Important Substances Related to Nucleotides  
 Nucleic Acids  
 Combinations of Sugars with Amino Acids and Proteins  
 Preparation  
 Protein-Carbohydrate Compounds as Synthetic Antigens  
 Reactions of the Sugars with Substituted Hydrazines and Hydroxylamine  
 Hydrazones and Osazones  
 Comparison of Weyland-Reckhaus and Binkley-Pausacker Mechanisms  
 Oximes  
 Derivatives in which an Amino Group Replaces a Primary or Secondary Hydroxyl Group  
 Amino Sugars (Glycosamines)  
 Glycamines and Aminodeoxyalditols  
 5. ROLE OF CARBOHYDRATES IN DENTAL CARIES  
 Dietary Carbohydrates in Diabetes and Nutrition  
 Carbohydrate Sweeteners in Nutrition: Fact and Fantasy  
 Consumption  
 Cost  
 Acceptability  
 Safety  
 Availability, Convenience, Quality  
 6. CARBOHYDRATES IN NUTRITION  
 General Aspects  
 Caloric Value  
 Digestion and Absorption  
 Starches  
 Dextrins  
 Maltose  
 Sucrose  
 D-glucose (Dextrose)  
 D-fructose (Levulose)  
 D-Mannose  
 D-galactose and Lactose  
 Lactose and the Microflora of the Digestive Tract  
 $\beta$ -Lactose vs.  $\alpha$ -Lactose  
 C. Influence of the Glycosidic Linkage on the Utilization of Lactose  
 Adaptation to Lactose Ingestion  
 Laxative Action of Lactose  
 Cataractogenic Action of Lactose  
 Galactosemia Associated with Cataracts in Humans  
 Lactose and Calcium Metabolism  
 Cellobiose  
 Rare Sugars  
 Xylose Toxicity  
 Sugar Alcohols (Alditols)  
 Hexosamines  
 Cellulose and Related Substances  
 Sweetness and Flavoring Characteristics of Sugars  
 Appetite for Carbohydrate  
 Blood Glucose and the Urge to Eat  
 Synthesis of Vitamins by the Intestinal Microflora

Protein Sparing Action  
Sugar in Candy and Carbonated Beverages  
Carbohydrates and Weight Control  
Carbohydrates in Parenteral Nutrition  
7. ESSENTIAL CARBOHYDRATES  
The Active Compounds and Their Properties  
Pathological States Caused by a Deficiency of the Active Compounds  
Specificity Studies  
The Physiological Action of the Active Compounds  
Requirements  
8. INOSITOL  
Nomenclature  
Names  
Chemical formula  
Empirical Formula  
Occurrence  
Isolation  
Properties  
Chemistry  
Industrial Methods of Preparation  
Biogenesis  
Specificity  
Determination  
Physiology of Plants and Microorganisms  
Animal Physiology  
Avitaminosis  
Hypervitaminosis  
Requirements  
9. ETHERS, ANHYDRO SUGARS AND UNSATURATED  
DERIVATIVES  
Ether Derivatives (External)  
Alkylation Methods  
Trityl Derivatives  
Anhydro Derivatives  
Methods of Preparation  
Reactions of Anhydro Sugars  
Unsaturated Derivatives  
Glycols  
Glycoseens and Alditoleens  
10. PANTOTHENIC ACID  
Nomenclature and Survey  
Names  
Probably also identical with  
Empirical formula  
Structural formula  
Chemical name  
Efficacy  
Occurrence  
Isolation  
Properties  
Chemical Constitution  
Synthesis  
Industrial Methods of Preparation

- Biogenesis
- Specificity
- Determination
- Standards
- Physiology of Plants and Microorganisms
- Animal Physiology
- Avitaminosis and Hypovitaminosis
- Hypervitaminosis
- Requirements
- 11. NICOTINIC ACID—NICOTINAMIDE
- Nomenclature and Survey
- Names
- Chemical formulas
- Chemical names
- Empirical formulas
- Occurrence of Nicotinic Acid and of Nicotinamide
- Isolation of Nicotinic Acid and of Nicotinamide
- Properties of Nicotinic Acid and of Nicotinamide
- Constitution of Nicotinic Acid and of Nicotinamide
- Synthesis
- Industrial Methods of Preparing Nicotinic Acid and Nicotinamide
- Biogenesis of Nicotinic Acid
- Enzyme Systems Containing Nicotinamide
- Coenzymes Containing Nicotinamide
- Mechanism of the Nicotinamide Coenzyme Action
- Specificity of Nicotinic Acid and Nicotinamide
- Determination of Nicotinic Acid and Nicotinamide
- Chemical Methods
- Biochemical Methods
- Biological Methods
- Standard of Nicotinic Acid and Nicotinamide
- Physiology of Plants and Microorganisms
- Animal Physiology
- General Physiology, Metabolism and Mechanism of the Vitamin Action
- Avitaminosis
- Clinical Test Methods
- Hypervitaminosis
- Nicotinic Acid Requirements
- 2. CELLULOSE
- 1. ANALYSIS
- Properties and Composition
- Manufacture of Chemical Cellulose
- Specifications for Chemical Cellulose
- Methods of Analysis
- Identification
- Determination of Polymer Composition
- Determination of Carbohydrate Composition
- Determination of Noncarbohydrate Impurities
- Determination of Physical Properties
- End-use Tests
- 2. DERIVATIVES OF CELLULOSE
- Analysis of Cellulose Derivatives
- Cellulose Nitrate

- Properties
- Methods of Manufacture
- Methods of Analysis
- Cellulose Acetate
- Methods of Analysis
- Cellulose acetate Butyrate and Cellulose Acetate Propionate
- Properties
- Methods of Analysis
- Ethylcellulose
- Properties
- Methods of Manufacture
- Methods of Analysis
- Methylcellulose and Its Derivatives
- Properties
- Methods of Manufacture
- Methods of Analysis
- Hydroxyethylcellulose and Its Derivatives
- Properties
- Methods of Manufacture
- Methods of Analysis
- Sodium Carboxymethylcellulose
- Properties
- Methods of Manufacture
- Commercial Grades and Specifications
- Methods of Analysis
- 3. STRUCTURE AND MECHANICAL PROPERTIES OF CELLULOSE
- Fine Structure
- Internal Appearance of Fibres
- Crystallinity
- Orientation
- Micellar and Intermicellar Structure
- Mechanical Properties
- Experimental Work
- Correlation between Fine Structure and Mechanical Properties
- Effect of Moisture
- 4. DECRYSTALLIZATION OF COTTON CELLULOSE
- Methods of Decrystallization
- Stability of Decrystallization
- Effect of Decrystallization on the Properties of the Fibre
- Mechanism of Amine Treatment
- 5. EFFECT OF CELLULOSE STRUCTURE ON TENSILE PROPERTIES OF COTTON
- Degree of Crystallinity
- Degree of Fibrillar Orientation
- Measurement of Orientation
- Effect of Orientation on Tensile Properties
- Degree of Polymerization
- Determination of D.P.
- Effect of D.P. on Physical Properties
- 6. CREASE RESISTANCE OF CELLULOSIC TEXTILES IN RELATION TO FABRIC GEOMETRY
- Poor Recovery in Cotton Fabrics

Background

Effect of Fabric Construction on Crease Recovery

Conclusion

## 7. MERCERIZED COTTON FIBRES

Preparation of Samples

Measurement of Crystalline Orientation

Mechanical Behaviour

## 8. ALKALI-SENSITIVE LINKAGES IN IRRADIATED CELLULOSE

Materials and Methods

Results and Discussion

## 9. HYDRATED OXIDES AS BARRIERS AGAINST ACTINIC DEGRADATION OF CELLULOSE

Experimental Procedure

Results and Discussion

## 10. HYDRATED OXIDES AS BARRIERS AGAINST CELLULOSE DEGRADATION BY ULTRA-VIOLET IRRADIATION

Experimental Procedure

Results and Discussion

## 11. SODIUM METAPERIODATE OXIDATION OF CELLULOSE AND CELLOBIOSE

Experimental Procedure

Oxidation of Cellobiose

Preparation of Derivatives

Oxidation of Cellulose

Discussion

Summary

## 12. BIOSYNTHESIS OF CELLULOSE

Synthesis in Cotton Plant

Russian Work

Cellulose Accumulation in Cotton Boll and Fibre

American Work

Microorganisms

## 13. REACTIONS OF CELLULOSE WITH CROSS LINKING AGENTS

## 14. CHEMICAL MODIFICATION OF TEXTILE CELLULOSES

Structure of Cellulose

Properties of Textile Cellulose

Elongation and Elastic Properties

Flex Life, Tear Strength and Wear Life

Wet Strength, Dimensional Stability, Wash and Crease-resistance and Drape

Bulk Density and Warmth

Lustre

Slipperiness and Resistance to Clinging

Resistance to Soiling

Permeability

Water Repellency, Absorbency, Quick Drying, Electrical Insulation and Dye-receptivity

Mildew and Rot resistance

Heat and Flame Resistance

Ion-exchange Properties

## 15. CELLULOSE ETHERS

Hydroxyethyl Cellulose

Work at Shri Ram Institute

## 16. ANTI-CREASE AND ANTI-SHRINK FINISHES FOR VISCOSE RAYONS

Resin Finishes and Formaldehyde Treatment

Sriferet Process

Development

Outline of the Process

Properties of Treated Fabrics

Equipment

Large Scale Trials

Some Advantages

Cost of treatment

## 17. MICROBIAL DECOMPOSITION OF CELLULOSE WITH SPECIAL REFERENCE TO COTTON AND COTTON FABRICS

## 18. ROLE OF MOISTURE IN HEAT TREATMENT OF RESIN-TREATED CELLULOSIC TEXTILES

Fibre Properties and Moisture Content

Modification of Fibre Properties During Heat Treatment

Temperature and Moisture Content

Migration of Solutes and Solvents during Heat Treatment Summary

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