## Wood, Bamboo, Coal, Lignin and Its Derivatives

<u>Directory/ Database/ List of Wood, Plywood, Furniture and Allied</u>
<u>Products Manufacturers, Dealers & Exporters in India (3rd Edition)</u>
[.xlsx, excel format]

Format: CD-Rom Book Code: NID36

Price: Rs. 4,130.00 US\$ 150.00

Offline Business directory is the best thing in today's business world. If you are searching for Buyers, then this Directory/Database is the perfect tool for you. By having the right business leads, you would be able to have immediate communication with prospective businesses, partners and customers through this boundless list of Wood, Plywood, Furniture and Allied Products Manufacturers, Dealers & Exporters in India in excel format, .xls We offer an extensive suite of Directories/ database to assist you in reaching the right businesses and people quickly and easily. Business Directories are used for sales planning, finding Buyers and marketing research to perform business analysis. With our company database/Directory, you will have access to company list. You will find a business list consisting of company contact details. We compiled list of companies in excel format to give you access to over hundred thousands of major & minor businesses and companies. From small business to Corporate Houses, our data is complete with business contact information to help you connect with the right companies or buyers. This database collection is a great resource for those suppliers who offer their goods and services to Wood, Plywood, Furniture and Allied Products Manufacturers, Dealers & Exporters like, Companies, Industries, Manufacturers, Developers, Builders, Building Contractors, Architects, Interior Decorators, Traders, Traders, Wholesalers, Retailers, Packaging Material Suppliers, Plant & Machinery Suppliers, Office Equipment Suppliers, Office Furniture Suppliers, Mobile Companies, Raw Material Suppliers, Advertisement Agencies, Office Stationery Suppliers, Transporters, Courier Companies, IT, Software Companies, Placement Companies, Labour Contractors etc. Information in this database Contains over 22,250 records of Wood, Plywood, Furniture and Allied Products Manufacturers, Dealers & Exporters in India. Details Includes: Company Name (22,250), Contact Person (7,000), Postal Address (22,200), Phone No. (21,650 Landline or Mobile), Fax (3,800), E-mail (12,700), Website (3,100). Note: All Records does not contain all fields of information. However, maximum information has been incorporated. Format: MS Excel, .xlsx

## The Complete Technology Book on Wood and Its Derivatives

Author: NIIR Board of Consultants & Engineers

Format: Paperback Book Code: NI146

**Pages**: 502

ISBN: 8186623922

**Price**: **Rs.** 1,100.00 **US\$** 125.00

Wood has been used for hundreds of thousands of years for both fuel and as a construction material. Wood is an organic material, a natural composite of cellulose fibers (which are strong in tension) embedded in a matrix of lignin which resists compression. In the strict sense wood is produced as secondary xylem in the stems of trees (and other woody plants). Wood is used for millennia for many purposes, primarily as a fuel or as a construction material for making houses, tools, weapons, furniture, packaging, artworks, and paper. Wood is composed of cells, and the cell walls are composed of micro fibrils of cellulose and hemicellulose impregnated with lignin. The derivation of chemicals from wood is carried out wherever technical utility and economic conditions have combined to make it feasible. In a living tree it performs a support function, enabling woody plants to grow large or to stand up for themselves. It also mediates the transfer of water and nutrients to the leaves and other growing tissues. Wood may also refer to other plant materials with comparable properties, and to material engineered from wood, or wood chips or fiber. Wood and man have coexisted on this planet from the beginning and wood, as a renewable resource, has provided man with tools, weapons and shelter. Wood, when dry, has unique physical properties in that its tensile strength, bending strength, compression strength, impact resistance and hardness per unit weight are the highest of all construction materials. Wood polymer composites (WPC) are materials in which wood is impregnated with monomers that are then polymerized in the wood to tailor the material for special applications. The resulting properties of these materials, from lightness and enhanced mechanical properties to greater sustainability, has meant a growing number of applications in such areas as building, construction and automotive engineering. Other uses of wood in furniture, buildings, bridges, and as a source of energy are widely known. Wood is perhaps the most used component in our daily life, from home building and furnishings to everything from the tables to the doors are made of wood, and for the people living in colder climates, wood holds even greater importance. Some of the fundamentals of the book are wood structure and chemical composition, chemical change in wood associated with wood fiberboard manufacture, chemical changes in wood effected

by furnish preparation processes, bark extracts as bonding agent for particle board , wood polymer composites and their industrial applications , chemical reactions of preservatives with wood, activation of wood surface and nonconventional bonding , chemistry of weathering and protection , weathering of chemically modified woods, energy and chemicals from wood, charcoal and other chemicals, etc. The developments in wood industry in the country are mainly attributed to the pioneering work carried in the field of wooden products. There are lots of chemicals and other products extracted from wood. This book contains processes of various wooden products and its derivatives. This is the first book of its kind which is invaluable resource to research scholars, entrepreneurs, technocrats, institutes, libraries and existing one.



Author: H. Panda Format: Paperback Book Code: NI243

**Pages**: 568

ISBN: 9788178331508

**Price**: **Rs.** 1,475.00 **US\$** 150.00

Bamboo is an important non wood forest product. In India, bamboo, which is traditionally considered the Poor man wood, and labelled as Green Gold is being considered a major export item by the centre for the global market. Bamboo is perfectly suited to agro forestry as a woody grass. Bamboo has been exploited from natural stands from time immemorial. Bamboo is increasingly being cultivated like other agricultural crops, that is, in professionally managed plantations. The growth of industries utilizing bamboo requires the sustainable cultivation and management of bamboo resources. India is blessed with very rich bamboo resources. Bamboo can play an important role in raising forest cover and a major role in stabilization of the environmental problems. The annual yield in tonnes/ha depends on the environment as well as the species. It is estimated that almost 25% of the biomass in the tropics and 20% in the subtropics, come from bamboo. The cultivation of bamboo as a wood substitute helps to offset depletion of the rain forest. Its rapid growth ensures an effective reconstruction of damaged eco systems. Bamboo is one of many sustainable non wood resources that can generate income for a large forest dependent rural population and it needs to take further steps to realize its full potential. In India, the North East has the largest stock and diversity of bamboos. Though India has the largest area under bamboo, the yield per hectare is very low compared to other countries. Bamboo plantation rising should be encouraged & promoted due to their high value, productivity, uniformity of crop, choice of species linked to peoples' need and industrial need. Bamboo forest constitutes about 13% of the total forest area of the country. About 50% of bamboo produced in India grows in North Eastern region and West Bengal. India has the second largest bamboo reserves in the world after China. This book basically deals with bamboos in India, the bamboo plant harvesting, cultivating, silviculture and management, collection of material and preparation of cuttings treatment for root induction in cuttings, preparation of nursery and planting nursery management transplanting, pattern of biomass allocation in growing bambusa bamboos, biochemical characteristics of plantation bamboo leaf (bambusa bambos) with reference to organic productivity, economic analysis, bamboo plantation, problems and prospects, need for bamboo plantation, consumption pattern of bamboos in India, working and finishing qualities of

bamboo, bamboos for structural use, pipe water supply system and drainage, bamboo furniture weaving industry etc. This book provides a complete detail on Bamboo plantation and its utilization. This book contains chapters like types of bamboo in India, taxonomy, cultivation, harvesting, growth management, bamboo utilization, Bamboo products and many more. This book will be very helpful to all its readers, environmentalists, agronomists, entrepreneurs, industrialists, or anyone with a special interest in bamboo cultivation.

## Handbook on Coal, Lignin, Wood and Rosin Processing

Author: Dr. H. Panda Format: Paperback Book Code: NI298

**Pages**: 512

**ISBN**: 9789381039748

**Price**: **Rs.** 1,875.00 **US\$** 150.00

Coal is one of the world's most plentiful energy resources. Coal is one of the fastest growing forms of energy after renewable sources and its share in the global primary energy consumption increasing rapidly. Lignin is the most abundant natural raw material available on Earth in terms of solar energy storage. Lignin is a complex chemical compound, cross linked polymer that forms a large molecular structure. Lignin can be used as a green alternative to many petroleum-derived substances, such as fuels, resins, rubber additives, thermoplastic blends and pharmaceuticals. Rosin is a complex mixture of mainly resin acids and small amount of non-acidic components. Energy markets are evolving with technological advancements supporting rapid growth in renewable energy capacity. The coal market is set to witness great boost in near future because of the rising government initiatives. Coal is one of the main power generation sources all over the world. The factors that are favoring the market growth include rising electricity demand and rapid industrialization. Presently the global coal industry market is valued at \$9.4 with CAGR of 11.21 % is poised to reach \$22 billion in coming years. Asia Pacific has the larger demand and emerging as a larger supplier of Coal. The present global lignin market demand is estimated at \$4,222.1 million and is expected to reach \$6,190.5 million in future. The Major contents of the book are coal, analysis of coal and coke, cotton, lignin and hemicelluloses, degradation of wood, CCA-treated wood, wood-polymer composites, lignocellulosic-plastic composites from recycled materials, chemical modification of wood fiber, delignification of wood with pernitric acid, rosin and rosin derivatives, polymerizable half esters of rosin. It describes the manufacturing processes and photographs of plant & machinery with supplier's contact details. It will be a standard reference book for professionals, entrepreneurs, those studying and researching in this important area and others interested in the field of these industries.

<u>Indian Buyers Directory/ Database /List of Wood & Wood Products</u> (Plywood, Laminated Panels, Furniture, Etc.) ( with Financial Data)

Format: CD-Rom Book Code: NID212

**Price**: **Rs.** 4,130.00 **US\$** 150.00

Indian Buyers Directory/ Database /List of Wood & Wood Products (Plywood, Laminated Panels, Furniture, Etc.) (with Financial Data) Recommended For Wood and Timber Merchants/ Importer/Exporters/Traders Offline Business directory is the best thing in today's business world. If you are searching for Buyers, then this Directory/Database is the perfect tool for you. By having the right business leads, you would be able to have immediate communication with prospective businesses, partners and customers through this boundless list of All India Companies in csv excel editable format (easy sorting and filtering). We offer an extensive suite of Directories/ database to assist you in reaching the right and targeted businesses and people quickly and easily. Business, B2B‎, Industrial Directories, Mailing List are used for sales planning, finding Buyers, Sector, Business House and marketing research to perform business analysis. With our company database/Directory, you will have access to company list, Corporate/Leading Companies, Small & Medium Enterprises (SME), you will find a business list consisting of company contact details. We compiled list of companies in excel format to give you access to over hundred thousands of major & minor businesses and companies. From small business to Corporate Houses, our data is complete with business contact information to help you connect with the right companies or buyers. This database collection is a great resource for Buyers and those suppliers who offer their goods and services to Trade, Manufacturing industry, Companies, Corporate Houses & Industries in India. Contains over 254 Indian buyers - details of buyers Include: Name of Buyer (Company), Address, City, Pin Code, Phone, Fax, Email\*, Website\*, Name of Directors, Location of Plants, Production Capacity, Name of Products, Turnover, Product industry code, List of Major Raw Materials with their consumption quantity & Raw material value, Note: All Records does not contain all fields of information. However, maximum information has been

Handbook on Coal, Coke, Cotton, Lignin, Hemicellulose, Wood, Wood-Polymer Composites, Lignocellulosic-Plastic Composites from Recycled Materials, Wood Fiber, Rosin and Rosin Derivatives

incorporated. Format: MS Excel

Author: Dr. Himadri Panda

Format: Paperback Book Code: NI312

**Pages**: 512

ISBN: 9789381039861

**Price**: **Rs.** 1,875.00 **US\$** 150.00

Handbook on Coal, Coke, Cotton, Lignin, Hemicellulose, Wood, Wood-Polymer Composites, Lignocellulosic-Plastic Composites from Recycled Materials. Wood Fiber. Rosin and Rosin Derivatives (Also Known as Handbook on Coal, Lignin, Wood and Rosin Processing) Coal is the product of plants, mainly trees that died tens or hundreds of millions of years ago. Coal is a fossil fuel and is the altered remains of prehistoric vegetation that originally accumulated in swamps and peat bogs. The energy we get from coal today comes from the energy that plants absorbed from the sun millions of years ago. Coal is used primarily as an energy source, either for heat or electricity. It was once heavily used to heat homes and power locomotives and factories. Bituminous coal is also used to produce coke for making steel and other industrial process heating. Lignin is a constituent of the cell walls of almost all dry land plant cell walls. It is the second most abundant natural polymer in the world, surpassed only by cellulose. Lignin is found in all vascular plants, mostly between the cells, but also within the cells, and in the cell walls. Wood is an aggregate of cells essentially cellulose in composition, which are cemented together by a substance called lignin. The cells are made of three substances called cellulose (about 50 percent), lignin (which makes up a fifth to a quarter of hardwoods but a quarter to a third of softwoods), and hemicellulose. Rosin refers to an extraction process that utilizes a combination of heat and pressure to nearly instantaneously squeeze resinous sap from your initial starting material In India's energy sector, coal accounts for the majority of primary commercial energy supply. With the economy poised to grow at the rate of 8-10% per annum, energy requirements will also rise at a reasonable level. The Indian coal industry aspires to reach the 1.5 billion tonne (BT) mark by FY 2020. In fore-coming years, the industry will naturally need to focus on building on the success, and be on track for reaching the FY 2020 goal. One of the primary goals of the Government of India is to ensure that it is able to meet the country's power generation needs. Another aim is to lower the country's reliance on coal imports by boosting the coal production quickly. The Major contents of the book are Coal, Analysis of Coal and Coke, Cotton, Lignin and Hemicelluloses, Degradation of Wood, CCA-Treated Wood, Wood-Polymer Composites, Lignocellulosic-Plastic Composites from Recycled Materials, Chemical Modification of Wood Fiber, Delignification of Wood with Pernitric Acid, Rosin and Rosin

Derivatives, Polymerizable Half Esters of Rosin and Photographs of Plant & Machinery with Supplier's Contact Details. It will be a standard reference book for professionals, entrepreneurs, those studying and researching in this important area and others interested in the field of these industries.

## **About NIIR**

**NIIR PROJECT CONSULTANCY SERVICES (NPCS)** is a reliable name in the industrial world for offering integrated technical consultancy services. NPCS is manned by engineers, planners, specialists, financial experts, economic analysts and design specialists with extensive experience in the related industries.

Our various services are: Detailed Project Report, Business Plan for Manufacturing Plant, Start-up Ideas, Business Ideas for Entrepreneurs, Start up Business Opportunities, entrepreneurship projects, Successful Business Plan, Industry Trends, Market Research, Manufacturing Process, Machinery, Raw Materials, project report, Cost and Revenue, Pre-feasibility study for Profitable Manufacturing Business, Project Identification, Project Feasibility and Market Study, Identification of Profitable Industrial Project Opportunities, Business Opportunities, Investment Opportunities for Most Profitable Business in India, Manufacturing Business Ideas, Preparation of Project Profile, Pre-Investment and Pre-Feasibility Study, Market Research Study, Preparation of Techno-Economic Feasibility Report, Identification and Section of Plant, Process, Equipment, General Guidance, Startup Help, Technical and Commercial Counseling for setting up new industrial project and Most Profitable Small Scale Business.

NPCS also publishes varies process technology, technical, reference, self employment and startup books, directory, business and industry database, bankable detailed project report, market research report on various industries, small scale industry and profit making business. Besides being used by manufacturers, industrialists and entrepreneurs, our publications are also used by professionals including project engineers, information services bureau, consultants and project consultancy firms as one of the input in their research.

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