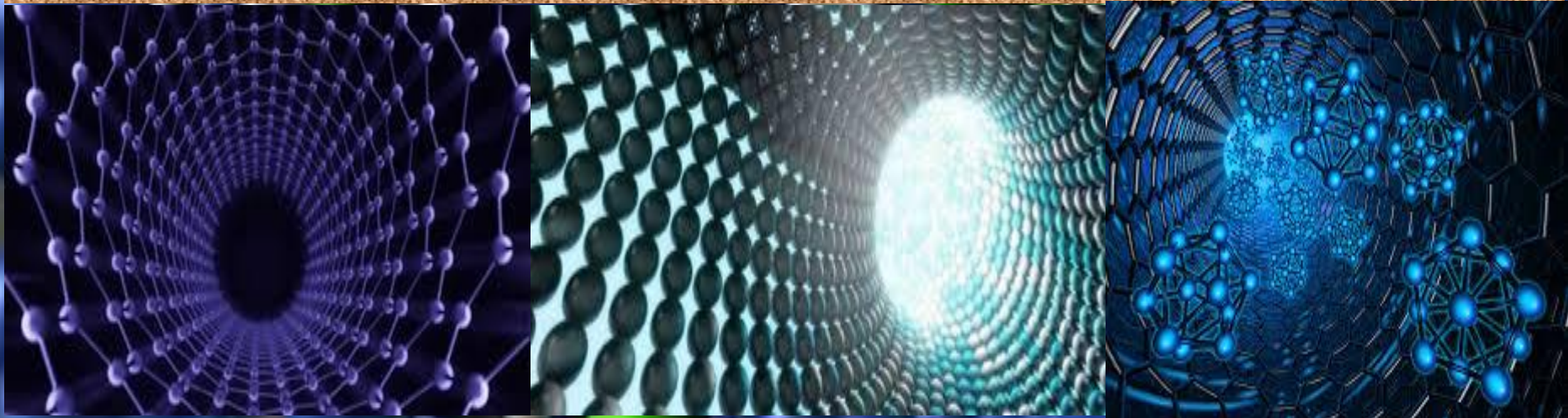


# Nanotechnology

(Polymeric Nanofibres, Nanospheres for Photoluminescence, Nanospheres for Photoluminescence, Synthesis of Magic-Sized Nanocrystals, Magnetic Nanostructures, Mechanism of Anodic Alumina, Swnt Reinforced Composites, Platinum Coated Prodes, Nanocrystalline Semiconductors, Synthesis of CDSE Clusters)



# Introduction

Nanotechnology ("nanotech") is manipulation of matter on an atomic, molecular, and supramolecular scale. The earliest, widespread description of nanotechnology referred to the particular technological goal of precisely manipulating atoms and molecules for fabrication of macroscale products, also now referred to as molecular nanotechnology. A more generalized description of nanotechnology was subsequently established by the National Nanotechnology Initiative, which defines nanotechnology as the manipulation of matter with at least one dimension sized from 1 to 100 nanometers.



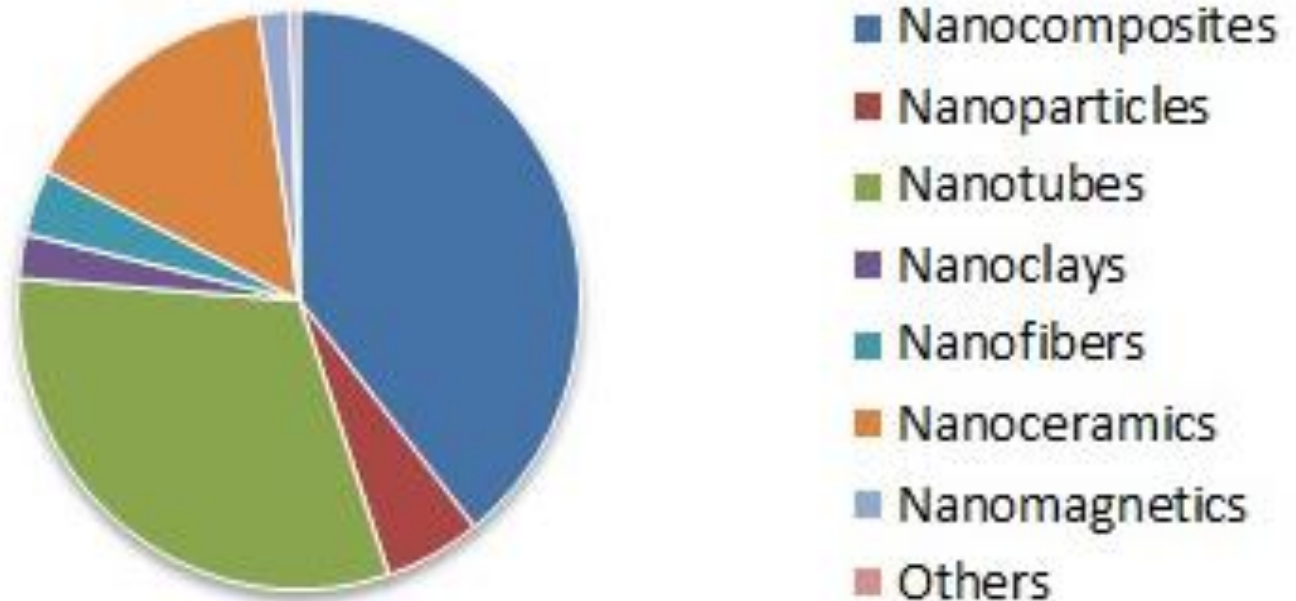
This definition reflects the fact that quantum mechanical effects are important at this quantum-realm scale, and so the definition shifted from a particular technological goal to a research category inclusive of all types of research and technologies that deal with the special properties of matter which occur below the given size threshold. It is therefore common to see the plural form "nanotechnologies" as well as "nanoscale technologies" to refer to the broad range of research and applications whose common trait is size. Because of the variety of potential applications (including industrial and military), governments have invested billions of dollars in nanotechnology research. Until 2012, through its National Nanotechnology Initiative, the USA has invested 3.7 billion dollars, the European Union has invested 1.2 billion and Japan 750 million dollars.

# Market Outlook

Nanocomposites are anticipated to dominate the global nanotechnology market by type and are estimated to control around 60% of the total market revenue by type in 2021. However, nanoclays and nanomagnetics are estimated to attain the fastest growth rate during the forecast period.

The nanotechnology market is driven by the ever increasing application base of and increasing emphasis on renewable and sustainable energy sector with the use of low cost materials.


# Nanotechnology Market Revenue



The global nanotechnology market is anticipated to grow with the CAGR of 17.7% during the forecast period of 2016-2022.

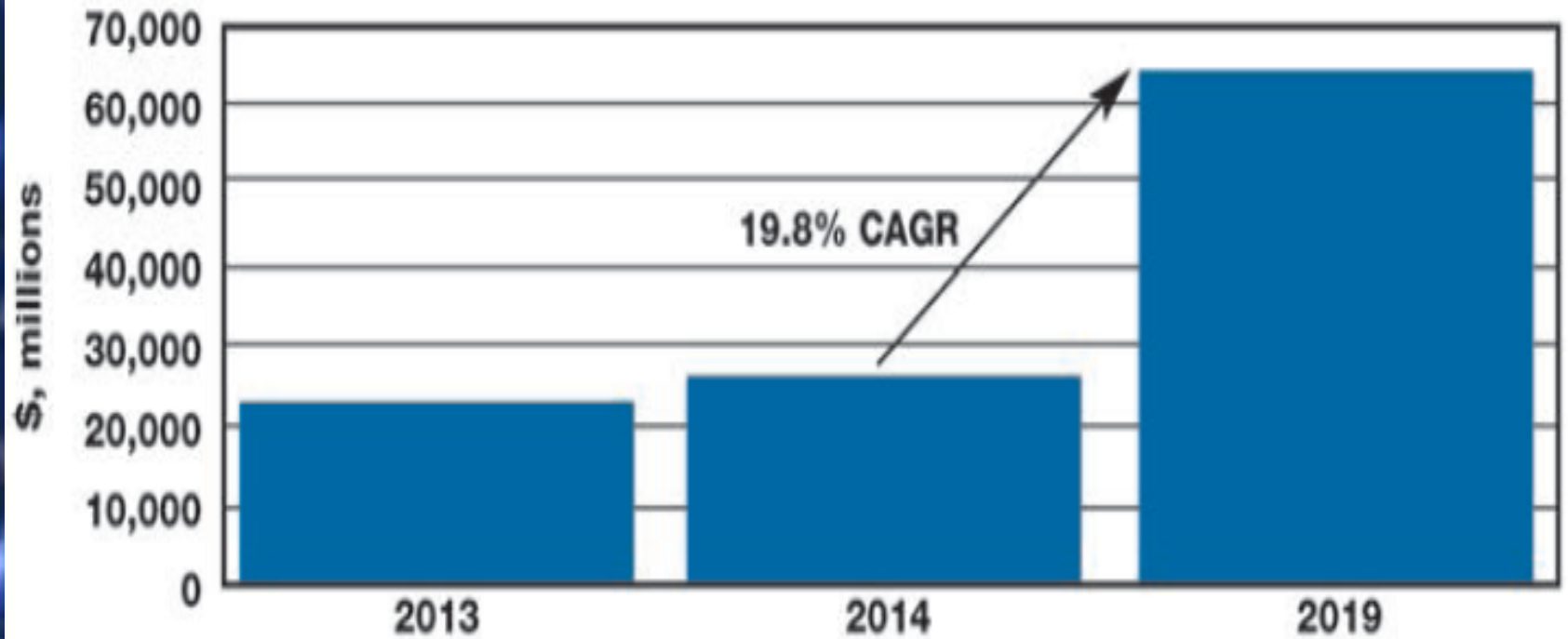
Europe accounted for 33% market share in global nanotechnology market revenue in 2015 after Americas region and is forecast to grow at a CAGR of 15.6% to reach \$3.98 billion by 2021. APAC region is projected to grow at a rate of 20.9% CAGR during the forecast period 2016-2021. On aggregate, the global nanotechnology market revenue is forecast to grow at 16.9% CAGR to reach \$12.83 billion by 2021.



The background of the slide features a dense field of small blue spheres, likely representing water molecules or a similar molecular structure. Scattered throughout this field are several larger, bright green spheres, which represent individual atoms or ions. In the lower-left quadrant, there is a complex, cage-like molecular structure made of grey rods, possibly a carbon nanotube or a similar nanoscale framework. To the right of this structure, there is a cluster of smaller green spheres, suggesting a nanoscale assembly or a specific chemical reaction site.

The global market for nanotechnology is expected to grow to \$64.2 billion by 2019, with a five-year compound annual growth rate (CAGR) of 19.8%.

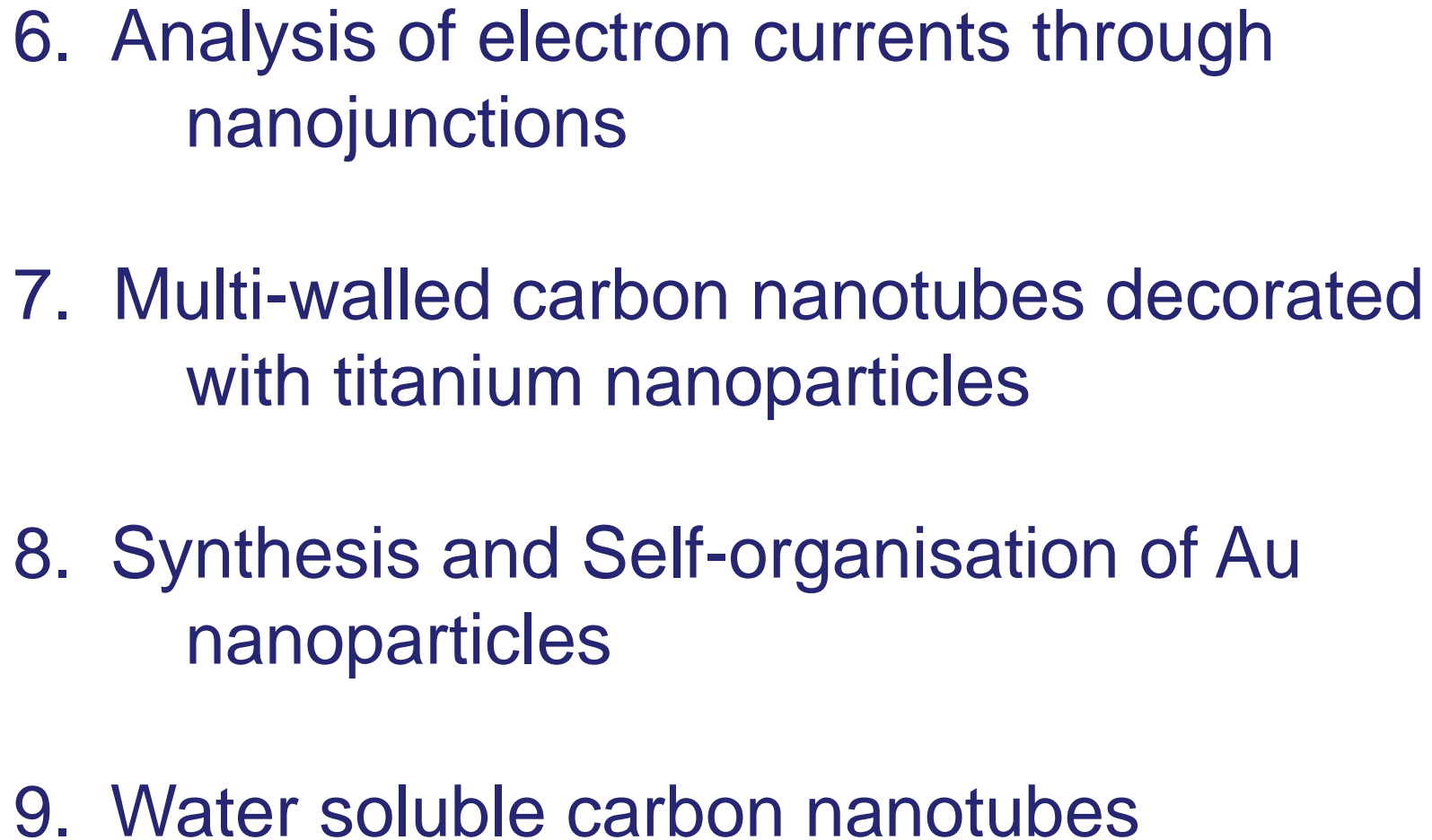
# Global Nanotechnology Market

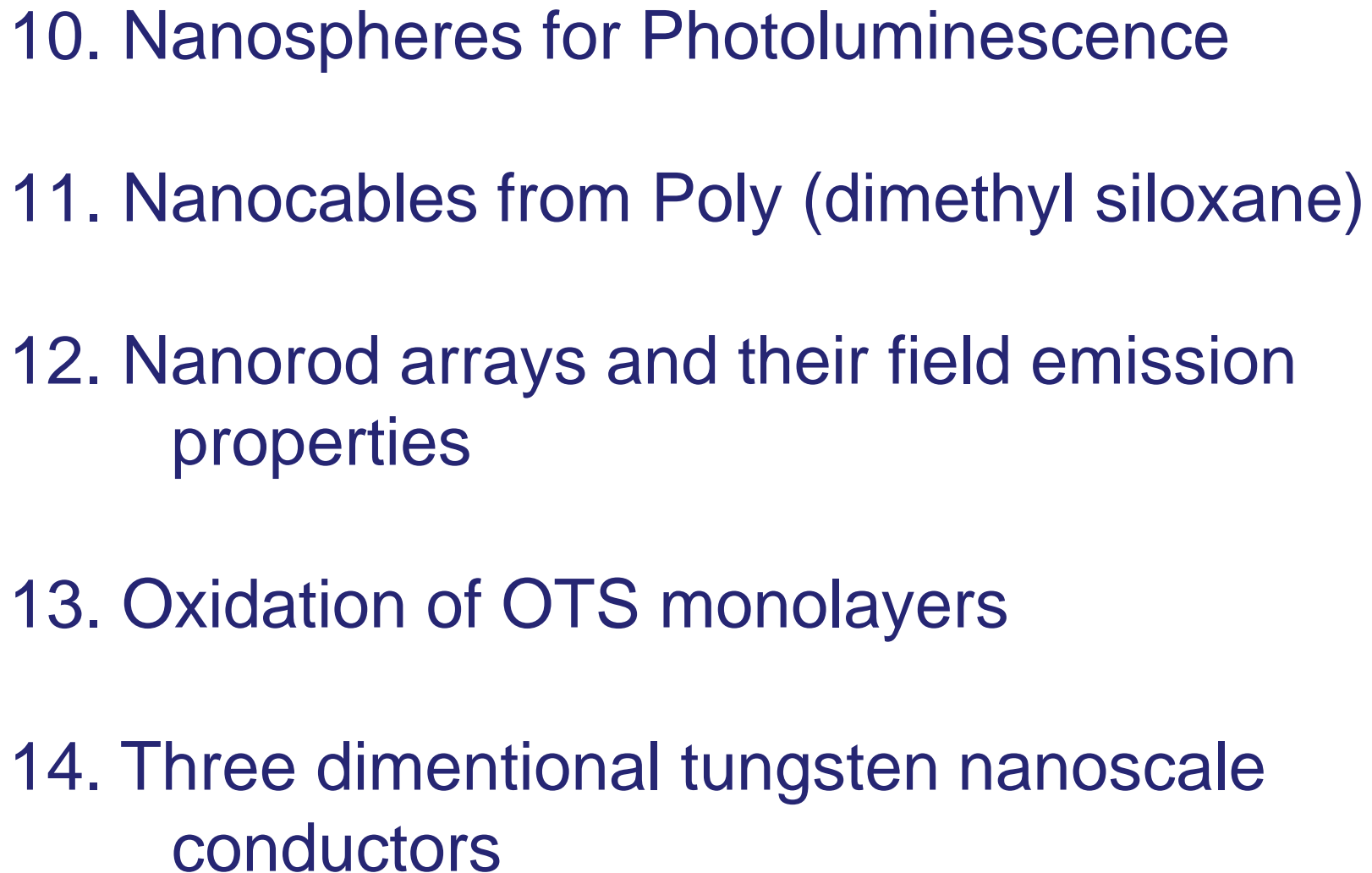




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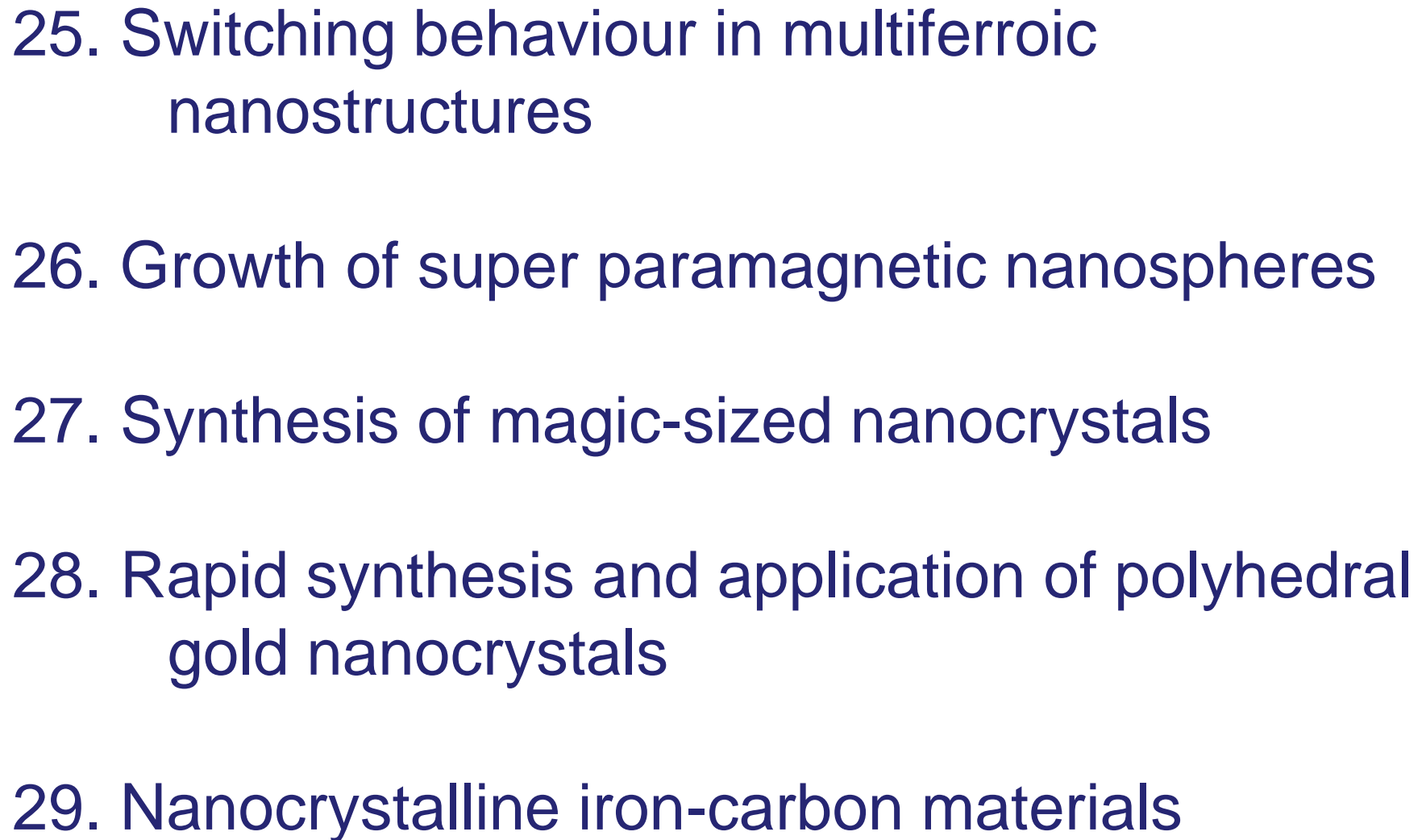
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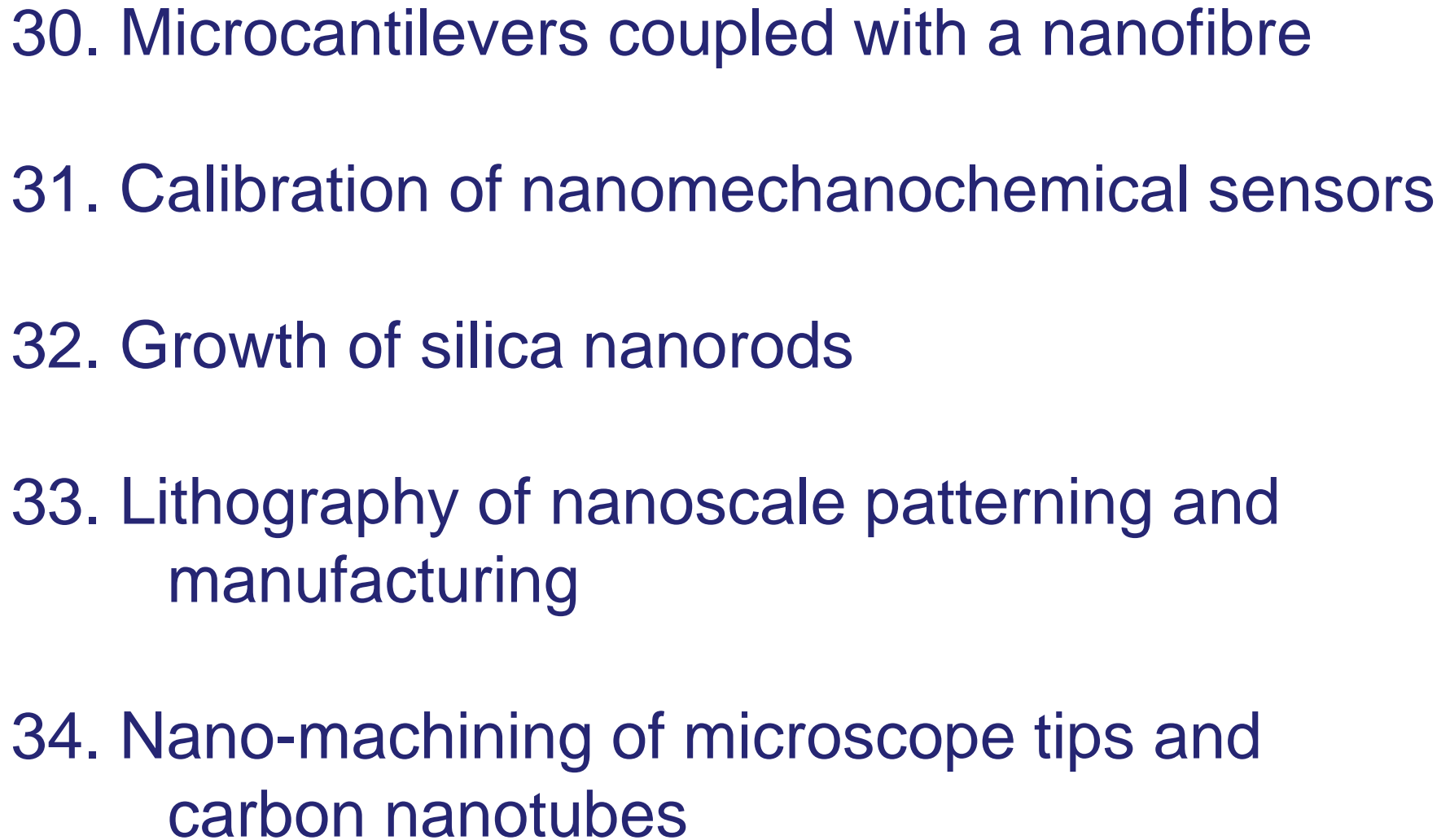
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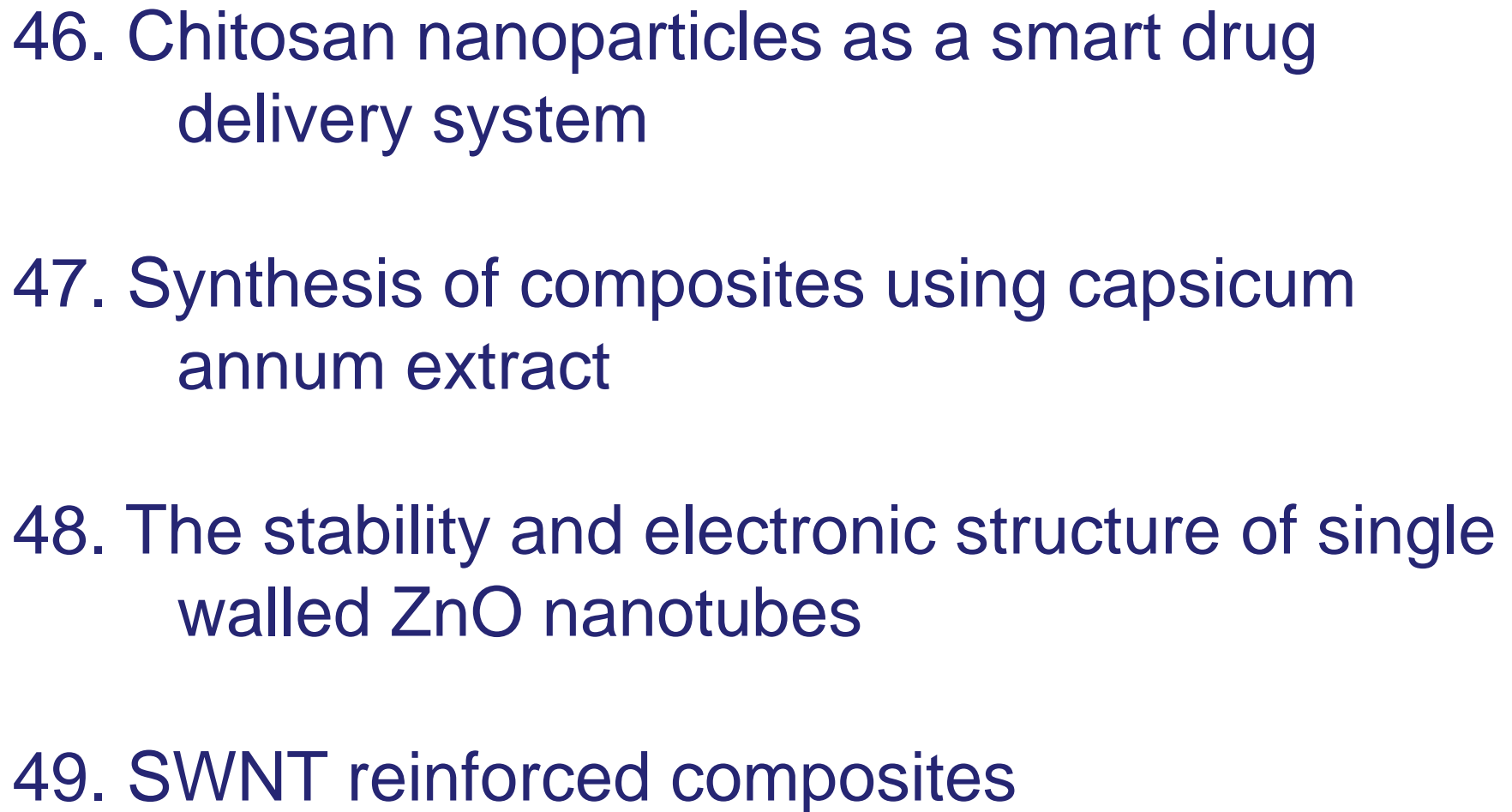
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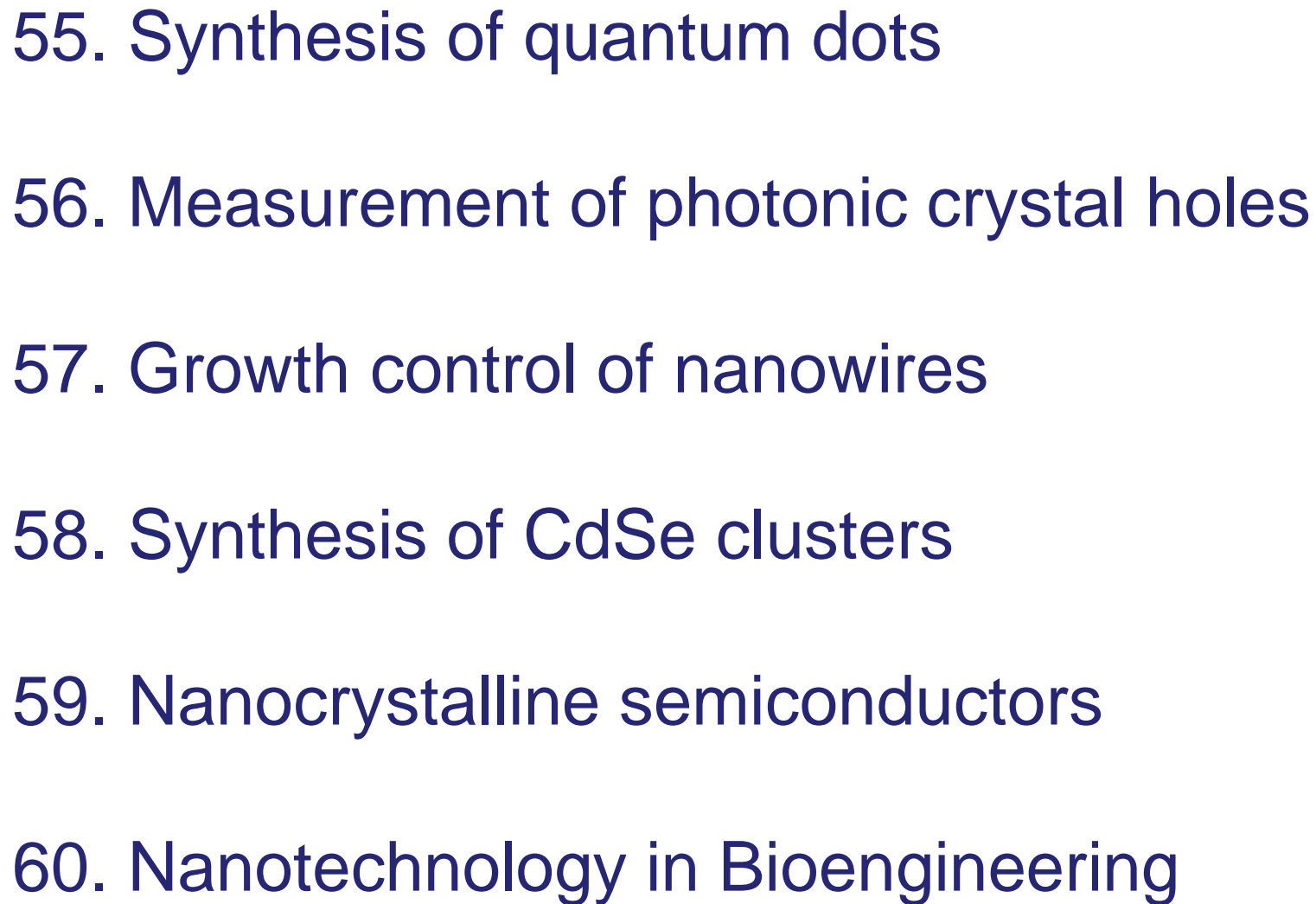
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Nanotechnology, Nanotechnology Products, Processing of Polymer Nanofibers, Electrospinning, Electrospinning of Polymer Nanofibers, Synthesis of Nanostructures, Preparation of AU-MWNT Hybrids, Fabrication of AU-MWNT Hybrids, Formation Mechanism of AU-MWNT Hybrids, Hole Fabrication, Mechanism of Hole Fabrication, Multi-Walled Carbon Nanotube Tip, Biohybrid and Bioinspired Nanodevices, Co-Cluster, Magnetic Cluster, Micelle Coalescence or Curing, Biopolymer Folding, Silk Processing, Device Fabrication, Cadmium Sulphide, Cadmium Telluride, Zinc Telluride, Zinc Selenide Nanocrystalline Films, Proton Pumps, Dendrimers, Surface Modification, Production of Synthetic Spider Silk Fibers, Spider Silk Production, Production of Spider Silk, Assembly of Nanocrystals, 2D Patterned Nanocrystal Arrays, Oxidation of OTS Monolayers, Fabrication of Tripod Nanorod Array, Bioprocessing of Silk Proteins, SWNT Reinforced Composites, Synthesis of Quantum Dots, Nanotechnology In Bioengineering, Nanocrystalline Semiconductors, Synthesis of CdSe Clusters, Platinum Coated Probes, Mechanism of Anodic Alumina, Magnetic Nanostructures, Nanospheres For Photoluminescence, Water Soluble Carbon Nanotubes, Photoluminescence in Anodic Aluminium Oxide Membranes, Uniform Arrays of Nanoholes and Nanopillars, Wrapping of Carbon Nanotubes By DNA, Rapid Synthesis and Application of Polyhedral Gold Nanocrystals, NPCS, Niir, Process Technology Books, Business Consultancy, Business Consultant, Project Identification and Selection, Preparation of Project Profiles, Startup, Business Guidance, Business Guidance to Clients, Startup Project, Startup Ideas, Project for Startups, Startup Project Plan, Business Start-Up,



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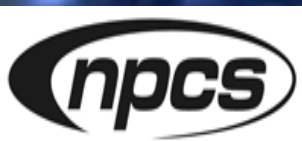
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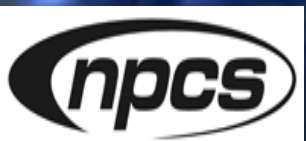
# ***Niir PROJECT CONSULTANCY SERVICES***

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# Who are we?

- *One of the leading reliable names in industrial world for providing the most comprehensive technical consulting services*
- *We adopt a systematic approach to provide the strong fundamental support needed for the effective delivery of services to our Clients' in India & abroad*

*We at NPCS want to grow with you by providing solutions scale to suit your new operations and help you reduce risk and give a high return on application investments. We have successfully achieved top-notch quality standards with a high level of customer appreciation resulting in long lasting relation and large amount of referral work through technological breakthrough and innovative concepts. A large number of our Indian, Overseas and NRI Clients have appreciated our expertise for excellence which speaks volumes about our commitment and dedication to every client's success.*







*We bring deep, functional expertise, but are known for our holistic perspective: we capture value across boundaries and between the silos of any organization. We have proven a multiplier effect from optimizing the sum of the parts, not just the individual pieces. We actively encourage a culture of innovation, which facilitates the development of new technologies and ensures a high quality product.*



# What do we offer?

- *Project Identification*
- *Detailed Project Reports/Pre-feasibility Reports*
- *Business Plan*
- *Industry Trends*
- *Market Research Reports*
- *Technology Books and Directory*
- *Databases on CD-ROM*
- *Laboratory Testing Services*
- *Turnkey Project Consultancy/Solutions*
- *Entrepreneur India (An Industrial Monthly Journal)*

# How are we different ?

- *We have two decades long experience in project consultancy and market research field*
- *We empower our customers with the prerequisite know-how to take sound business decisions*
- *We help catalyze business growth by providing distinctive and profound market analysis*
- *We serve a wide array of customers , from individual entrepreneurs to Corporations and Foreign Investors*
- *We use authentic & reliable sources to ensure business precision*

# Our Approach

**Requirement collection**

**Thorough analysis of the project**

**Economic feasibility study of the Project**

**Market potential survey/research**

**Report Compilation**

# Who do we serve?

- *Public-sector Companies*
- *Corporates*
- *Government Undertakings*
- *Individual Entrepreneurs*
- *NRI's*
- *Foreign Investors*
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- *Educational Institutions*
- *Embassies & Consulates*
- *Consultancies*
- *Industry / trade associations*



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- *Ayurvedic And Herbal Medicines, Herbal Cosmetics*
- *Alcoholic And Non Alcoholic Beverages, Drinks*
- *Adhesives, Industrial Adhesive, Sealants, Glues, Gum & Resin*
- *Activated Carbon & Activated Charcoal*
- *Aluminium And Aluminium Extrusion Profiles & Sections,*
- *Bio-fertilizers And Biotechnology*
- *Breakfast Snacks And Cereal Food*
- *Bicycle Tyres & Tubes, Bicycle Parts, Bicycle Assembling*

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- *Bamboo And Cane Based Projects*
- *Building Materials And Construction Projects*
- *Biodegradable & Bioplastic Based Projects*
- *Chemicals (Organic And Inorganic)*
- *Confectionery, Bakery/Baking And Other Food*
- *Cereal Processing*
- *Coconut And Coconut Based Products*
- *Cold Storage For Fruits & Vegetables*
- *Coal & Coal Byproduct*

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- *Dairy/Milk Processing*
- *Disinfectants, Pesticides, Insecticides, Mosquito Repellents,*
- *Electrical, Electronic And Computer based Projects*
- *Essential Oils, Oils & Fats And Allied*
- *Engineering Goods*
- *Fibre Glass & Float Glass*
- *Fast Moving Consumer Goods*
- *Food, Bakery, Agro Processing*

# Sectors We Cover *Cont...*

- *Fruits & Vegetables Processing*
- *Ferro Alloys Based Projects*
- *Fertilizers & Biofertilizers*
- *Ginger & Ginger Based Projects*
- *Herbs And Medicinal Cultivation And Jatropha (Biofuel)*
- *Hotel & Hospitability Projects*
- *Hospital Based Projects*
- *Herbal Based Projects*
- *Inks, Stationery And Export Industries*



# Sectors We Cover *Cont...*

- *Infrastructure Projects*
- *Jute & Jute Based Products*
- *Leather And Leather Based Projects*
- *Leisure & Entertainment Based Projects*
- *Livestock Farming Of Birds & Animals*
- *Minerals And Minerals*
- *Maize Processing(Wet Milling) & Maize Based Projects*
- *Medical Plastics, Disposables Plastic Syringe, Blood Bags*
- *Organic Farming, Neem Products Etc.*

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- *Paper And Paper Board, Paper Recycling Projects*
- *Printing Inks*
- *Packaging Based Projects*
- *Perfumes, Cosmetics And Flavours*
- *Power Generation Based Projects & Renewable Energy Based Projects*
- *Pharmaceuticals And Drugs*
- *Plantations, Farming And Cultivations*
- *Plastic Film, Plastic Waste And Plastic Compounds*
- *Plastic, PVC, PET, HDPE, LDPE Etc.*

# Sectors We Cover *Cont...*

- *Potato And Potato Based Projects*
- *Printing And Packaging*
- *Real Estate, Leisure And Hospitality*
- *Rubber And Rubber Products*
- *Soaps And Detergents*
- *Stationary Products*
- *Spices And Snacks Food*
- *Steel & Steel Products*
- *Textile Auxiliary And Chemicals*

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- *Textiles And Readymade Garments*
- *Waste Management & Recycling*
- *Wood & Wood Products*
- *Water Industry(Packaged Drinking Water & Mineral Water)*
- *Wire & Cable*



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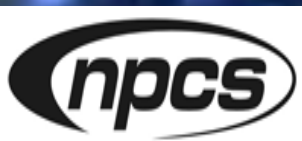
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