

# **Silver Nanoparticles Market by Synthesis Method (Wet Chemistry, Ion Implantation, and Biological Synthesis), Shape (Spheres, Platelets, Rods, Colloidal Silver Particles, and Others), and Application (Healthcare & Life Science, Textile, Electronics & IT, Food & Beverages, Pharmaceuticals, Cosmetics, Water Treatment, and Others): Global Opportunity Analysis and Industry Forecast 2020-2027**

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## **Abstracts**

The global silver nanoparticles market was valued at \$1.8 million in 2019, and is projected to reach \$4.1 million by 2027, growing at a CAGR of 15.7% from 2020 to 2027.

Silver nanoparticles sizes range from 1 to 100 nm. It has distinctive thermal, electrical, optical characteristics, and is being integrated into products that range from chemical and biological sensors to photovoltaics. Some of the additional applications are molecular photonic and diagnostics devices, which take advantage of the unique optical properties of these nanomaterials. General applications of silver nanoparticles are antimicrobial coatings, textiles, wound dressings, biomedical devices, and others. Silver nanoparticles continuously release a low level of silver ions to offer protection against bacteria. Because of their small size, these nanoparticles invade microorganisms and kill them.

Factors contributing toward the growth of the market are silver nanoparticles antimicrobial efficacy against bacteria, viruses, and others, extensive application areas in healthcare and electrical & electronics industries. However, factors challenging the

market growth are strict acts or regulations on nanoparticle use in food packaging. On the contrary, rise in R&D activity for increasing its consumer or application base is expected to provide lucrative opportunities to the market during the forecast period.

The report segments the silver nanoparticles market based on synthesis method, shape, application, and region. On the basis of synthesis, it is divided into wet chemistry, ion implantation, and biological synthesis. On the basis of shape, it is segmented into sphere, platelet, rods, colloidal silver particles, and others. According to application, it is categorized into healthcare and life sciences, textiles, electronics and IT, food & beverages, pharmaceuticals, cosmetics, water treatment, and others. Regional breakdown and deep analysis of each of the aforementioned segments is included for North America, Europe, Asia-Pacific, and LAMEA.

## KEY BENEFITS FOR STAKEHOLDERS

The report provides an extensive qualitative and quantitative analysis of the current trends and future estimations of the market from 2020 to 2027, determining the prevailing opportunities

A comprehensive analysis of the factors that drive and restrict the growth of the market is provided

The market size is provided in terms of volume and revenue

Porter's five forces analysis helps analyze the potential of buyers & suppliers and the competitive scenario of the industry for strategy building

Profiles of leading players operating in the market are provided to understand the competitive scenario

The report provides extensive qualitative insights on the significant segments and regions exhibiting favorable growth

## KEY MARKET SEGMENTS

## By Synthesis Method

Wet Chemistry

Ion Implantation

Biological Synthesis

## By Shape

Spheres

Platelets

Rods

Colloidal Silver Particles

Others

## By Application

Healthcare & Lifescience

Textile

Electronics & IT

Food & Beverages

Pharmaceuticals

Cosmetics

Water Treatment

Others

## By Region

### North America

U.S.

Canada

Mexico

### Europe

Germany

France

Italy

Spain

UK

Rest of Europe

### Asia-Pacific

China

Japan

India

South Korea

Rest of Asia-Pacific

### LAMEA

Brazil

Saudi Arabia

South Africa

Rest of LAMEA

## KEY MARKET PLAYERS

### Advanced Nano Products (ANP)

American Elements

Ames Goldsmith Corporation

Cerion LLC

Dune silver

Merck KGAA

Meliorum Technologies, Inc.

M K Impex Corp.

Nanocomposix

Nanocs Inc.

Nanogap Sub-nm-powder, S.a.

Nanografi Co. Inc.

Nanopure Technologies

Nanoshel LLC

Novacentrix

Pen Inc.

Prime Nanotechnology Co., Ltd.

Strem Chemicals, Inc.

Tecnan

Thermo Fisher Scientific

U.S. Research Nanomaterials Inc

The other players in the value chain include Emfutur Technologies, Bayer, BASF, BBI Solutions, Sukgyung AT Co., Ltd., Quantum Sphere, Inc., KCIL-NanoXpert Technologies, Microspheres-Nanospheres, and others

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