

New chemical synthesis and nanostructured materials as antimicrobial agents

Clusternanotech Ltd.

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Clusternanotech Ltd.

- Project history
- Background
- Sectors
- Some clients and cooperations
- Examples of applications
- Future perspectives

Clusternanotech Ltd.

- History and background

Professor Yuri Sidorin, Kemerovo State University, Russia

Physical chemist

1980s: First research

Post-1990: Synthesis of silver nanoparticles

→ Antimicrobial and anti-fungal effect → Silver ions emitted by nanoparticles

History and background

- 2000+ : Further tests and studies →
Impressive results
- Focus on certain metals, including silver

History and background

- 2005 : First nanomaterials imported to Europe
- VTA Austria GmbH – very successful
- Purification of industrial waster water
- Civil engineering products

History and background

- 2009 : Cooperation agreement with Prof. Sidorin → Clusternanotech Ltd.
- Clusternanotech Ltd. has 80% ownership of this unique technology

Sectors

- Agriculture
- Medicine
- Pharmaceutical
- Cosmetics
- Industry...

Pharmaceutical sector

- Rottapharm - Babygella
- Dermafresh

Medical sector

- E. Coli → 3 hours → Presence reduced by 99.9per cent
- Wound dressings

Cosmetics sector

- Sanitars → Make-up removal pads,
impregnated paper tissues

Agricultural sector

- Summerfruit → Kiwi plants
- Asti Province – Cooperation wine growers

Agricultural sector

- Stems : Endotherapy
- Leaf surface : Eliminates static bacteria, enhances photosynthesis, improves plant vigour
- Roots : Enhances photosynthesis, inhibits pathogens, increases crop yield
- Lenarduzzi; Isi Sementi (Fidenza)

Our cooperations

- University of Milan
- Modena : Veterinary specialists → Mastitis, COWS
- Russian universities : Antimicrobial coatings – titanium
- Nobel Biocare, Zurich : Dental implantology
- Wound dressings : University of Naples
- University of Parma : Films and packaging →

- Paints & anti-fouling products for marine application

Future perspectives

Our products are varied.

Applications are enormous.

Potential market is global.

We are just at the beginning.