

## Director's Desk

Dear all, welcome to the second edition of Spectro's Newsletter! Our belief in walking on the path of continuous growth and development has taken us one step ahead. We are very excited to publish our monthly Newsletter entitled "Tech Talk" which will showcase informative articles. We will be sharing with you the current hot topics in the world of Science, especially related to Health and Environment along with our forthcoming activities and achievements.

I hope that this Newsletter will keep you updated of the state-of-art technologies and developments taking place in the world. It will facilitate your work and will probably build a long-lasting relationship with Spectro.

*Kuldeep Dhingra*  
Managing Director

## Introduction to Spectro

Spectro provide facilities for Testing, Training, Inspection, Auditing, Certification, Consultancies and Verification Services with a reputation of excellence in all these fields. With the aim of becoming one of the most competitive and productive organization, we keep ourselves on the track of expanding our verticals to each and every field. 19 years of experience with a trusted name has helped us to create a benchmark in the Indian market.

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## After Mangoes, Paan Leaves to be banned by EU

Paan leaves, which originally belong to India and Pakistan is consumed on a large scale in all the countries round the globe. After Alphonso Mangoes, European Union (EU) is going to ban the import of Betel or Paan leaves. The domestic market is being harmed by the slowdown in Betel leaves export, as their wholesale prices have fallen from Rs 1,000 for 1,000 leaves to Rs 600 for 1,000 leaves in July. On 14th June, the EU's Rapid Alert System for Food and Feed (RASFF) has given a warning in its annual report that there have been persistent reports of contamination of Betel leaves by Salmonella which is a severe health hazardous bacterium.



Contd.

## SEM- Another Triumph by Spectro

Spectro has procured the advanced next-generation tabletop Scanning Electron Microscope. Hitachi TM3000 is compact and portable SEM with wide magnification range of 15x to 30,000x. Moreover it does not demand any specimen coating. We have climbed a step further by successfully incorporated this high-tech instrument for testing of wide variety of Metals, Ceramics, Composite Materials, Fibers, Polymers and several other materials.

Contd. (Ground Water Depletion )

It causes Salmonellosis which is a type of food poisoning disease, causing severe diarrhea, vomiting, ulcer and damage the immunity system of a human body. "Indian farmers do not have adequate knowledge about the use of pesticide and chemicals. Exporters, too, do not take adequate precautions during the farming stage," said Girish Mehta, analyst at Planet Exim.

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Farmers have inadequate knowledge about appropriate usage of pesticides, fertilizers as well as poor agricultural practices is the root cause of the issues being faced. Moreover, the exporters too, cut corners by not subjecting the produce to proper tests in approved laboratories. "The Indian government has not done anything for resolving the export issue with the EU so far. The large number of rejections in the EU is hurting exports," said Manoj Barai of M K Exports.

### *Acknowledgement*

- ÿ The Indian Express
- ÿ Business Standard
- ÿ Times of India



# Cleanroom: No Chance for Germs

A Cleanroom is an artificially created environment where air filtration and distribution, utilities, construction materials, instruments and equipments are maintained in a controlled manner which is specified by the number of particles per cubic meter at a specific particle size. The Cleanrooms are of absolute importance in the fields which are very sensitive like Healthcare industries, Biotechnology, Life sciences, Nanotechnology, Semiconductors and other precision based industries. The air penetrating into the Cleanrooms from outside is filtered to eliminate dust and other impurities.

To get rid of internally generated contaminants, the air inside the Cleanroom keeps on circulating constantly through an Ultra Low Penetration Air (ULPA) or/and High Efficiency Particulate Air (HEPA). The entry and exit is made through airlocks which may include an air shower stage.

Some of the Regulatory Bodies like WHO and USFDA have enforced CGMP i.e. Current Good Manufacturing Practice specifying certain Rules and Regulations on different aspects for checking and ensuring the absence of any type of contamination in the Cleanrooms.



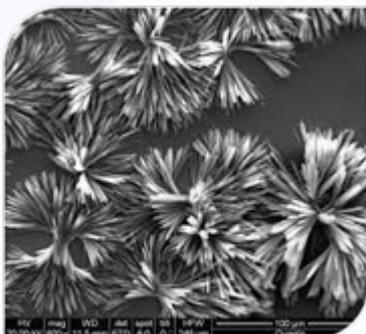
Spectro provide services based on latest information, innovative techniques and stringent decontaminating techniques for Cleanroom Construction, Validation, Maintenance and Inspection Services as per the specified National and International Standards. We offer a broad range of Environmental Monitoring Services for Cleanrooms and can also provide you with customized Hygiene-Monitoring Programs.

## *Acknowledgement*

- Y Clean Air Technology, Inc.
- Y American Cleanroom Systems
- Y Our Cleanrooms

# Technical Showcase: SEM

Scanning Electron Microscope (SEM) is one more advancement in the world of technology. This high-tech instrument produces 3-D images of a sample rapidly, by just scanning it with the help of a focused electron beam. It reveals the surface Topography as well as its Composition. The accelerated electrons carry significant Kinetic Energy and this energy is used up by the signals which are produced by electron-sample interactions. The signals include the Secondary Electrons and Backscattered Electrons which are used to image the samples.



Analysis through SEM is considered as Non-Destructive, as the X-rays generated by the interaction of electrons does not causes volume loss in sample and thus the same material can be analyzed repeatedly. It is perfectly suitable for the applications in Quality Control, R&D and Education.

*Spectro possesses Tabletop SEM Make: Hitachi Model: TM3000 We offer Testing Services related to Metals, Ceramics, Polymers, Fibers and various others.*

## Major Activities

Testing

Calibration

Training

Inspection

Clean Room Validation

R&D

- Ü Metals & Alloys
- Ü Food and Agro Products
- Ü Electrical & Electronics
- Ü Rubber & Polymers
- Ü Coal & Petroleum
- Ü Building Materials
- Ü Paper & Textiles
- Ü Hazardous Substances
- Ü Water & Environment
- Ü Minerals & Chemicals

Spectro Lab Equipments (P) Ltd. is promoted by a team of committed professionals who have years of experience and have not lost any opportunity to prove their ingeniousness. SLE is the largest manufacturer on Environment and Coal laboratory equipments.

## Activities

- Ü Chemical and Analytical Equipments
- Ü Coal Equipments
- Ü NDT Equipments
- Ü Mechanical Test Equipments
- Ü Environmental Equipments
- Ü Gold Testing Equipments
- Ü Polymer and Rubber Equipments

Spectro Weld Institutes (P) Ltd. provides exemplary short-term courses and full time courses on specialized topics. The welder gets certification by AWS (American Welding Society). We are also creating a pool bank of trained and certified welders for ready deployment for projects.

## Joint Ventures Labs:

- Ü Bhubaneswar
- Ü Patna
- Ü Mumbai
- Ü Kolkata
- Ü Kanpur
- Ü Jaipur
- Ü Patiala
- Ü Jammu



We will be pleased to receive your suggestions and feedback on our email ID: [newsletter@spectrogroup.com](mailto:newsletter@spectrogroup.com)

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