

ਦਫ਼ਤਰੀ

ਨਵਯਤ੍ਰ

May
June | 2010



CECRI News | May
June | 2010

Compiled by ICP, CSIR CECRI

Design & Layout
e-Library, CSIR CECRI



paradigm shifts in the leather processing made through this achievement were explained by him in detail. He also explained the salt less leather preservation and preservation through natural products. The enzyme based leather process created a milestone which comes under the New Millennium Indian Technology Leadership Initiative (MNITLI) project of CSIR.

He explained the develop-

National Technology Day Lecture - 2010

Professor Dr. Asit Baran Mandal, Director, Central Leather Research Institute, Chennai delivered the National Technology Day Lecture on "Paradigm Shift from Chemical to Bioprocessing of Leather; helical mystery and unwinding of triple helix and some biomaterial systems" on 12-05-2010.

He opened his talk by highlighting the importance of the technology day and why it is being celebrated on 11th May 2010 by Govt. of India. He remembered that on the same day (a) Three successful nuclear tests were carried out at Pokhran in Rajasthan, (b) First Indigenous aircraft Hansa-3 was test flown at Bangalore

and (c) Successful test firing of Trishul missile was done.

In the introductory remarks, he talked about the Functional Supramolecular Systems such as cells, enzymes, liposome, liquid crystals, micelles, etc.

He explained in detail the clean and green biotechnological leather processing and the efforts taken by CLRI to transform this chemical process to a successful eco-friendly bioprocess. The approaches to achieve this novel processes are (a) Ambient preservation of skin, (b) utility of enzymes for leather processing and (c) biotechnological control of total dissolved solids (TDS). The

ment of collagen sheets and its utility for treating the school children affected in the Kumbakonam fire accident. The recent programme on Zero Emission Research initiative using membrane bioreactors are under the commercial trials for the tannery industries, he added. In addition to the technological aspects, he explained many basic scientific findings in the area of micelle chemistry, nanobiotechnology, silver nanocomposites for antimicrobial applications, etc.

He concluded his talk by narrating the major technological achievements of CLRI, Chennai during the year 2009-2010.

IPRs/Patents Applied/Secured

a) A New High Voltage, High performance layered cathode material for lithium-ion batteries
Gopukumar S.; Nithya, Chandrasekaran.
Thirunakaran R., Sivashanmugam A.

b) A Novel process for the rapid synthesis of High Voltage High capacity layered Cathode material for Lithium batteries.
Gopukumar S.; Nithya, Chandrasekaran.;
Thirunakaran R., Sivashanmugam A.

c) A New High Voltage Nano composite Cathode (4.9V) for Lithium ion- batteries.
Gopukumar S.; Nithya, Chandrasekaran.;
Thirunakaran R., Sivashanmugam A.

New Technology Licensed

Non-enzymatic electrochemical method for simultaneous determination of total hemoglobin and glycated hemoglobin -
M/s Pirmal Health Care Pvt Ltd.,
Mumbai

Technical Services taken up

| SIno | Organization | Title | Value in Rs. |
|------|--|--------------------------------------|--------------|
| 1 | Testing of 12V/35 Ah and 12V/150Ah batteries | Bosch Ltd., Adugodi, Bangalore | 330900.00 |
| 2 | Evaluation of organo and non-organophosphonate samples for CaCO ₃ scale formation control | NLC Ltd., Neyveli | 220600.00 |

MoUs/Agreements signed

MoU has been executed with Sree Chitra Tirunal Institute for Medical Science & Technology. The purpose is to facilitate collaboration between the parties in the field of Physical Vapor Deposited Hard Coatings for Biomedical implants.

Grant-in-aid/ Sponsored Projects taken up

| SIN | Title | Organization | Value in Rupees |
|-----|--|--|-----------------|
| 1 | Studying the corrosion problems in N1 Bunkers and cooling zone of CCD in SMS (hood corrosion) and suggest suitable solutions in the plant area at Vizag steel Plant. | Rashtriya Ispat Nigam Ltd., Visakhapatnam Steel Plant, Visakhapatnam | 937550 |
| 2 | To design and supply 1 No of 5 KW Polymer Electrolyte Membrane Fuel Cell Stack operating on Hydrogen and Air | TVS Motor Co. Ltd., Hosur | 4000000 |
| 3 | Feasibility studies for Recycling of water from rinse/ wash water from Zinc barrel plating Unit. | Sundaram Fasteners, Aviyur | 463260.00 |

Special Training Programme conducted under Technical services/Consultancy basis:

| Name of the Special course and address of the client | Duration | No.of participants | Amount |
|---|--------------------|--------------------|----------|
| Training programme on Principles and Industrial practice of Electroplating & Metal finishing (TSP 03/2010) held at CECRI for M/s Cooksen India(P) Ltd., Bangalore-560 022 | 17.5.10 to 21.5.10 | 5 | 225376/- |

Invited Lectures arranged

| Sl.No. | Lecture title | Date | Name & address of the Speaker |
|--------|--|-----------|---|
| 1. | Materials for energy and environment applications | 13.5.2010 | Dr.M.Satish, Tohoku University, Sendai, Japan |
| 2. | Studies on Nano- structured transition metal oxides for Li-ion batteries and supercapacitors | 17.5.2010 | Dr.Ragupathy.P. USA |

Deputations for Conference

| Sl.No. | Name of Conference | Name of SRF | Designation |
|--------|---|--------------------------------|-------------|
| 1. | Seventh Programme on 'Technology Led Entrepreneurship' held at IICT, Hyderabad during 1-22 June, 2010 | Mr.K.Kamaraj Mr.P.Arunkumar | SRF SRF |

Foreign Deputation

Dr. A.Sivashanmugam, Scientist Gr.IV(4) was deputed to Korea to avail CSIR Raman Research Fellowship for the year 2010-11 for a period of four months from 25.6.2010 to 24.10.2010.



Dr. P.Venkatesan, Scientist Gr.IV(3) was deputed to The Netherlands for poster presentation of his papers in the 6th Coatings Science International Conference held during 28th June – 2nd July 2010.

Dr.Santoshkumar D.Bhat, Scientist, CECRI Chennai Unit has been deputed to Italy from 13th - 18th June, 2010 for oral presentation of his Paper in the International Conference on Modern Materials and Technologies (CIMTEC - 2010) held in Italy.

Retirement on superannuation



Shri S.John,
Scientist Gr.IV(5) on 31.5.2010



Shri S.Sekar,
Gr.III(4) on 30.6.2010



Shri I.Radhakrishna,
Scientist Gr.IV(4) on 31.5.2010

Dr.C.Ahmed Basha,
Scientist Gr.IV(5) on 31.5.2010

