



Rayat Shikshan Sanstha's
Yashwantrao Chavan Institute of Science, Satara
(Autonomous)

Department of Chemistry, YCIS, Satara
Organized
An International Conference on
“Multidisciplinary Approach and Innovations in Chemical Sciences”
Under RUSA
25 & 26th March 2022

Report

Department of Chemistry, Yashwantrao Chavan Institute of Science (Autonomous) has been organized two days International Conference entitled “Multidisciplinary Approach and Innovations in Chemical Sciences” (ICMAICS-22) under the aegis of Rashtriya Uchchar Shiksha Abhiyan (RUSA) on 25 & 26th March 2022. The conference was conducted in offline mode at Karmaveer Auditorium at Yashwantrao Chavan Institute of Science, Satara (Autonomous).

The Inaugural function of ICMAICS-22 was organized on 25th March 2022 at 10 am. The Chief guest for inauguration was Hon. Prof. Dr. M. M. Salunkhe (Vice-Chancellor, Bharti Vidyapeeth, Pune). The inauguration of ICMAICS-22 started with floral tribute to Rayat Shikshan Sanstha's founder Dr. Karmaveer Bhaurao Patil and architecture of modern Maharashtra Yashwantraoji Chavan. The welcome address for the inaugural session was given by Dr. Mrs. S. T. Mahanwar (Convener, ICMAICS-22 and Head, Department of Chemistry). In her welcome address she introduced the Institute and elaborated many things which institute is following as best practices. She also explained the importance of title of the conference in her address. She welcome all delegates and participants in the conference and lastly she also introduced the Chief guest of the inauguration Hon. Prof. Dr. M. M. Salunkhe (Vice-Chancellor, Bharti Vidyapeeth, Pune). After welcome address Hon. Prin. Dr. B. T. Jadhav felicitated the chief guest Hon. Prof. Dr. M. M. Salunkhe (Vice-Chancellor, Bharti Vidyapeeth, Pune). All other dignitaries was felicitated by Dr. Mrs. S. T. Mahanwar (Convener, ICMAICS-22). Hon. Prin. Dr. B. T. Jadhav, Vice-Principal Dr. V. Y. Deshpande, Research Dean Dr.

films by thermal evaporation and wet chemical techniques. Also he explained synthesis and characterization of V_2O_5 - TiO_2 composite film by flash evaporation and wet chemical techniques and effect of thermal and laser annealing on thin films. Further he talked about preparation of the quantum dot sensitized solar cells (QDSSs). And fabrication of specially designed gas chamber to test the gas sensing behaviour of the films.

Session IV

Poster Presentation-

Total 92 participants for poster presentation. Dr A. M. Nalawade , Dr. S.M. Khetre , Dr. S. K. Mujawar were examiners for poster presentation.

Session V

Professor Debbie Crans – Colorado State University, California

Topic- Addressing the dogma associated with action of phosphatase changing enzymes specificity.

Professor Debbie Crans gave presentation about vanadium in diabetes with speciation of vanadium salts and phosphatase. She also explained the concept of new specific inhibitor and characterization of inhibitors. She also gave detail information about demonstrating enzyme specificity and in Vivo activity of vanadium salts and phosphatase.

Session VI

Oral presentation-

Total 33 abstracts received for oral presentation. Prof. G.S. Rashinkar, Prof A. S. Kumbhar , Prof S. H. Mujawar were examiners for Oral Presentation.

Session VII

Professor Dr. Dinesh Amalnerkar – Savitribai Phule Pune University, Pune

Topic- nanocentric characterization of typical ayurvedic bhasmas by using ultra modern analytical techniques.

Prof Dr. Dinesh Amalnerkar explain how nanostructures in ayurvedic metallic (Bhasmas) used specially for cancer treatment. Also he gave information about XRD structural analysis of bhasma that reveals presence of pure metallic phase with no indication of oxides or any other extraneous phase

S. H. Mujawar, PG Dean Dr. V. M. Gharpade, UG Dean Dr. A. P. Torane and IQAC Coordinator Dr. J. J. Chavan, Dr. Mrs. S. T. Mahanwar (Convener, ICMAICS-22), Dr. S. B. Kamble (Organizing Secretary, ICMAICS-22), Dr. P. V. Chavan (Coordinator, ICMAICS-22), Dr. M. S. Barge (Treasurer, ICMAICS-22) was present on the dais.

Hon. Prof. Dr. M. M. Sahukhe (Vice-Chancellor, Bharti Vidyapeeth, Pune) addressed the participants of ICMAICS-22. In his address he pointed out the importance of interdisciplinary research and how they can be used for various innovations. He explained many new innovations in chemical sciences and made his talk very exciting. He gave best wishes for the conference and congratulated organizers for arranging interdisciplinary conference in chemical sciences.

The Presidential address for the inaugural session was given by Hon. Prin. Dr. B. T. Jadhav. In his address he mentioned the importance of chemistry in everyday life and ultimately need of innovations in the subject area. He also congratulated Department of Chemistry for organizing such a interdisciplinary conference.

The inaugural session of ICMAICS-22 ended with vote of thanks by Dr. S. B. Kamble (Organizing Secretary, ICMAICS-22). 250 participants were present in the auditorium for the inaugural session.

Session I

Professor Richard Weiss- Georgetown University Washington, DC, USA

Topic- Complex polymeric materials through self assembly initiated by small molecule ; Reversible gels, ionomers and polymers with rubbery properties.

Session II

Professor Dr. Matjaz Valant- University of Nova Gorica Slovenia

Topic- Stability of interfaces between topological insulators and metals

Session III

Professor Amanulla Fatchmulla – King Saud University, Riyadh

Topic- Nanostructured metal oxide films- synthesis and their band gap tuning.

Prof Amanulla Fatchmulla explained why metal/thermal and laser heterostructures are important. He gave detailed information about synthesis and characterization of pure Nano V_2O_5 and Nano TiO_2 thin

formation. Further he concluded his talk by giving significance presence of reactive oxygen moieties along with Au and Ag was perplexing particularly because of precious metals do not react with oxygen and XRD reveals presence of pure metals.

Session VIII

Dr. Vinod Chaudhari - CSIR- Institute of Microbiology Technology, Chandigarh

Topic- Rational Drug Discovery: a case study of novel orexin receptor antagonists.

Dr. Vinod Chaudhari explained the activities against COVID-19 and mechanism of action of drug and plausible drug targets for the treatment of COVID-19. He gave information about drug discovery process by medical chemist perspective. He briefly explained drug discovery project in which he gave details about various points- hit generation to the lead optimization to IND filing, seven lead chemo types explored, good PK– PD translation, scale up of candidate for toxicity study

The valedictory function of the conference was held on 26th March 2022 at 3 pm in Karmaveer Auditorium. The chief guest for valedictory function was Prin. Dr. R. V. Shejwal (Principal, LBS College, Satara) and Prof. Dr. Dinesh Amalnerkar (Savitribai Phule Pune University, Pune) and Prin. Dr/ B. T. Jadhav was President. The session started with conference remarks by Dr. P. V. Chavan (Coordinator, ICMAICS-22). In his talk he gave summary of all sessions in ICMAICS-22. Hon. Prin. Dr. B. T. Jadhav felicitated the guests Hon. Prin. Dr. R. V. Shejwal (Principal, LBS College, Satara) and Hon. Prof. Dr. Dinesh Amalnerkar (Savitribai Phule Pune University, Pune). Vice-Principal Dr. V. Y. Deshpande, Research Dean Dr. S. H. Mujawar, PG Dean Dr. V. M. Ghorpade, UG Dean Dr. A. P. Torane, Student development Dean Dr. M. A. Patil and IQAC Coordinator Dr. J. J. Chavan, Dr. Mrs. S. T. Mahanwar (Convener, ICMAICS-22), Dr. S. B. Kamble (Organizing Secretary, ICMAICS-22), Dr. P. V. Chavan (Coordinator, ICMAICS-22), Dr. M. S. Barge (Treasurer, ICMAICS-22) was present on the dais for valedictory function.

The Chief guest Prin. Dr. R. V. Shejwal (Principal, LBS College, Satara) addressed the participants of ICMAICS-2022. He pointed various examples in daily life which needs small innovations for betterment of society and he mentioned the importance of chemical innovations for various purposes. He also congratulated to organizers of ICMAICS-2022.

The prizes for Poster and Oral presentation Competitions was declared followed by chief guest address. The first prize for oral presentation was won by Dr. Datta B. Gunjal (LBS College, Satara), second prize won jointly by Dr. Kishor Khot (AGPM Dept., Shivaji University, Kolhapur) and Dr. Bipin Shinde (KBP College, Vashi) and the third prize won jointly by Mr. Suraj Attar (YCIS, Satara) and Ms. A. M. Kulkarni (Gogate-Jogalekar College, Ratnagiri). The examiners for the oral presentation was Prof. G. S. Rashinkar, Dr. A. S. Kumbhar (Dept of Chemistry, Shivaji University, Kolhapur) and Dr. S. H. Mujawar. The first prize for poster competition was won by Tejaswini Patil , second prize won by Kharat B. V., Kshirsagar R. G., Khutekar D. R., *Dr. G. D. Kokate and third prize won by Ashutosh Jagdale . Total 33 abstracts received for oral presentation and 92 participants for poster presentation.

The Presidential address was given by Hon. Prin. Dr. B. T. Jadhav. He congratulated all the winners and also motivated the participants for interdisciplinary research. The valedictory function was ended with the vote of thanks by Dr. G. D. Kokate. Total 310 participants registered for the conference.

Photo Gallery



Inauguration ICMAICS-2022 by Prof.M.M.Salunkhe Vice-Chancellor, Bharti Vidyapeeth Pune

Varying pendant group content: polysiloxanes with 6-7% (38 KDa) and 20-25% (32 KDa) amidinium pendant groups and hexyldithiocarbamate anions

Magnitudes of loss (G'' ; unfilled symbols) and storage (G' ; filled symbols) moduli in the frequency range examined are dependent on the amidine pendant group contentbut neither material is a gel

Modulus (Pa)

1.0E+04

1.0E+03

1.0E+02

1.0E+01

1.0E+00

1.0E-01

1.0E-02

1.0E-03

20% - 6N-CS₂

$G'' > G'$

6-7% - 6N-CS₂

$G'' > G'$

20 °C

Angular Frequency (rad/s)

(0.5 % strain)

PDMS — CH₂CH₂CH₂CH₂CH₂CH₂N⁺(R)₂C(S⁻)₂

6N-CS₂

Prof. Richard Weiss, Georgetown University, Washington DC, USA



Multidisciplinary Approach and Innovations in Chemical Sciences-2022 (MAICS-2022), March 25-26

Convergent Protein Phosphatase Inhibitor Design for PTP1B and TCPTP Exchangeable Vanadium Coordination Complexes on Graphene Quantum Dots

Debbie C. Crans

Zisoua Yang

diabetes

metabolic disease

high blood sugar

Diabetes

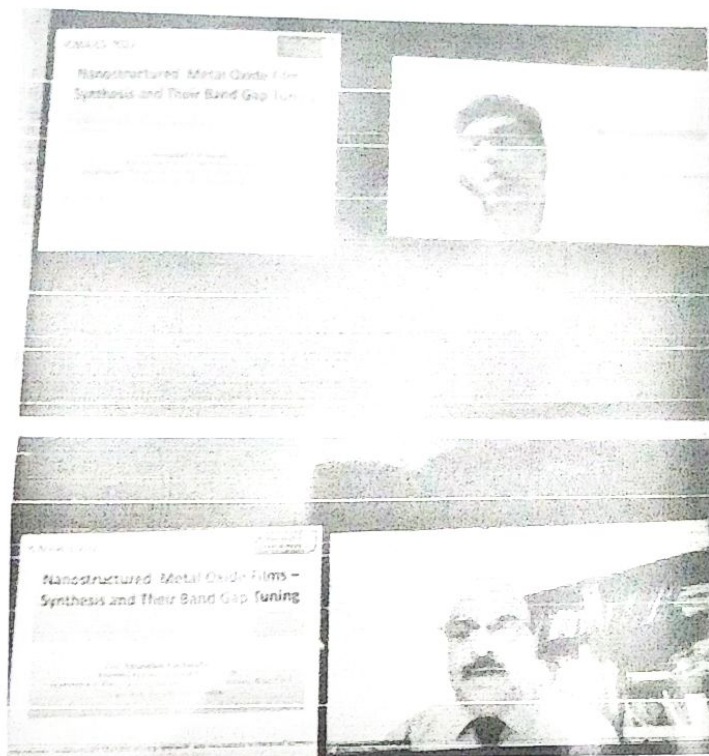
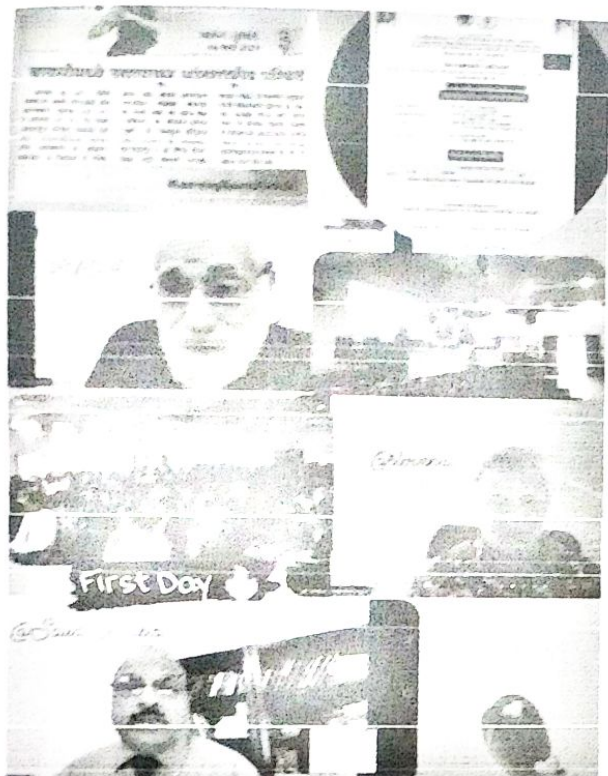
Diabetes

Cancer

Diabetes

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Prof. Debbie Crans, Colorado State University, California, USA



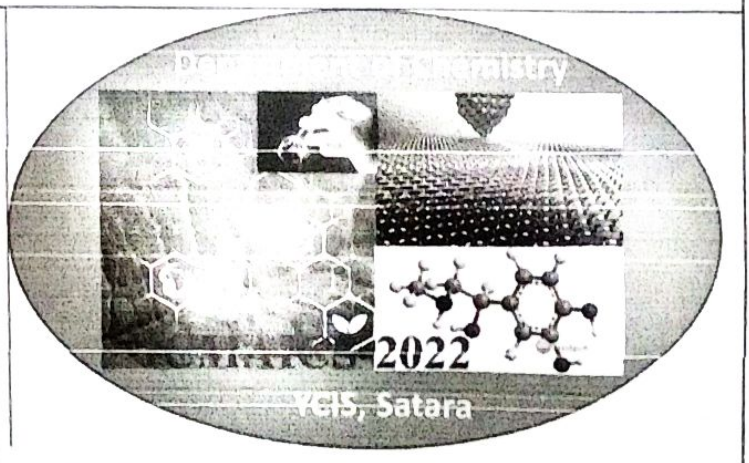
Professor Dr. Matjaz Valant- University of Nova Gorica Slovenia and Professor Amanulla Fatehmulla – King Saud University, Riyadh



Professor Dr. Dinesh Amalnerkar – Savitribai Phule Pune University, Pune



Valedictory Function Chief Guest Prin. Dr. R. V. Shejwal, LBS College, Satara



smahar