

Rasayanatva

Details of Convener – Dr. Satish Chand

Members –

- Dr. Monica Dinodia
- Dr. Manoj Kumar
- Dr. Shailendra k. Singh
- Dr. Surendra Kumar
- Dr. Nidhi Rawat
- Dr. Sunita Gulia
- Dr. Indrani
- Dr. Sonu Kumar

Details of Core Team Members –

- President – Kirti Kashyap 'Taijas'
- Vice Presidents – Arpan Gupta, Prashansa
- Gen. Secretary – Ayush Singh
- Editorial Heads – Anandika Gupta, Ritul Sharma
- Treasurer – Tanu Sharma

About the society - Rasayanatva is the Chemical Society of Hansraj College, University of Delhi. It is one of the leading departmental societies of Delhi University. The society helps an individual in developing inquisitive nature towards the chemical sciences and has remarkably contributed in expanding the horizons of students in renewing and consolidating their interest in Chemistry. The society organizes various events like seminars, workshops, quizzes, and discussions that embraces the students with their interpersonal and leadership skills. Besides, the society publishes its annual magazine and journal that helps the students to fortify their skills. From the students who are mainly academically inclined and are reluctant to get out of their comfort zone to the students who are oblivious of the scientific wonders, all are encouraged and lent a hand to identify their potential and boost their otherwise undermined confidence. Rasayanatva aims at recruiting students with a scientific temperament and an eagerness to learn and absorb things.

Details of events organized like a Full report - We are elated to share the end of the year report of Rasayanatva, The Chemical Society of Hansraj College highlighting the journey and the accomplishments in the past year. Rasayanatva commenced the session 2020-21 with renewed vigor and a new wave of excitement. As the corona virus pandemic plunged everyone into despair and locked at homes, the pressure of not letting virtual interaction a barrier in the functioning of the society developed and hence it became requisite for the core- team to switch gears and expand its horizons in terms of creativity and hard work. Regular webinars such as 'How to cope with mental health during COVID-19 pandemic', 'Guide to career opportunities in Chemistry' etc. featuring esteemed speakers were conducted to help students maximize their knowledge and explore the more interesting sides of Chemistry. The Journal of Rasayanatva is one of the most noteworthy achievement in the previous year. The journal encapsulates review articles on the researches performed by the scientists from the wide spectrum of Chemistry. Instagram series 'Factophile' representing a blend of learning and fun through thought-provoking posts is another initiative taken mainly to increase the social media outreach. To impart wisdom and scale the scientific interests in students we organized a national conference on 'New frontiers in Biosensing' where renowned guest speakers from the field of Chemistry addressed the forum. The Chemical Society bid farewell to the students of batch of 2021 in the month of May and wished them luck for future. We also released the seventh edition of our annual magazine called 'Equilibrium' this year. The session 2020-21 brought many unprecedented challenges but the overwhelming participation we received in our every endeavor inspired us to not settle.

It all started afresh with the commencement of session 2021-22. Apart from Factophile, two new Instagram series 'Chem-o-shorts' and 'Abc of Chemistry' was also introduced in order to provide best of what chemistry is all about. In collaboration with IQAC, webinar on 'Digital transformation and climate change' and 'Environmentally benign solvents for sustainable development' was also organized. An Event called 'Chem-Heist' based on the theme 'Science and technology' was organized to enlighten the students with the richness of science and provide them a platform to put their knowledge to test. It is truly a remarkable session. It is our greatest honor to serve you all and we will continue to strive for excellence.

Website link

<https://rasayanatva.github.io/>

Pictures of Events





DEPARTMENT OF CHEMISTRY

HANSRAJ COLLEGE
UNIVERSITY OF DELHI
(NAAC Grade A+ with CGPA 3.62)

In collaboration with

IQAC HANSRAJ COLLEGE

Invite you to a webinar on

Digital Transformation & Climate Change



Dr. Sanjeev Singh
Associate Prof.
IIC, Delhi University



9th October, 2021



11 AM - 12.30 PM



Google Meet

Dr. Sonu Kumar
(Co-ordinator)

Dr. Satish Chand
Covenor
(Chemical Society)

Dr. Jyoti Singh
(Teacher-In-Charge)

Dr. Mona Bhatnagar
(Director- IQAC)

Prof.(Dr.) Rama
(Principal)



Rasayanatva : The Chemical Society
of Hansraj College



presents



Virtual
FAREWELL
BATCH OF 2021



SAT, MAY 29 , 3PM Onwards
HOSTED ON - MS Teams



ISSUE 2



JRCS

ISSUE 2 : 14 APRIL 2021

JOURNAL OF
RASAYANATVA

THE CHEMICAL SOCIETY OF
HANSRAJ COLLEGE

Editors

1. Kirti Kashyap 'Taijas'
2. Prashansa Mehta

Founders

1. Ankush Paul
2. Prateek Jain
3. Vasu Mittal

Team Members

Ayush Rana, Tanishka Sharma, Divyot Singh, Sakshi Arya, Shreya Kukreja, Arpan Gupta, Baibhav, Yashit Verma, Jhanvi Gupta, Pragya Gambhir, Priya Rathore, Shaifali Sharma, Salony Methi

<https://rasayanatva.wixsite.com/hansraj>



HANSRAJ COLLEGE
University of Delhi

DEPARTMENT OF CHEMISTRY



Organises

National Conference
on
**NEW FRONTIERS IN
BIOSENSING**



3 APRIL, 2021
10:00 AM Onwards



PLATFORM
MS TEAMS



LINK FOR REGISTRATION
<https://bit.ly/3v3aFxD>



DR. S P SINGH

Principal Scientist and Associate Professor,
National Physical Laboratory



DR. CHETNA DHAND

Sr. Scientist,
CSIR-AMPRI



DR. PRANJAL CHANDRA

Assistant Professor,
IIT BHU



DR. TANVI VATS

Faculty Associate
Gautam Buddha University

ORGANISING SECRETARY

Dr. Pratibha Tiwari
Dr. Jyoti Singh

PATRON

Prof. Rama

PROGRAM COORDINATORS

Dr. Satish Chand
Dr. Anjali Saxena

For more details, Contact:

Arpan - 9953263728
Yashit - 7355876165

MEDIA PARTNERS





RASAYANATVA

The Chemical Society Of Hansraj College



"A Guide to Career Opportunities" From Ex Hansarians



MR. PUNEET GOEL

Executive Officer
(Chemist)
ONGC



MR. HARMEET SINGH

Executive Officer
(Chemist)
ONGC



MS. HARSHITA KHURANA

Associate Manager at
Bharti AXA GI,
Educator

Date : 16 January, 2021
Time : 4 PM onwards
Platform : Google Meet

TEACHER IN CHARGE

Dr. Satish

PRINCIPAL

Dr. Rama

SOCIETY CONVENOR

Dr. Pratibha



RASAYANATVA

The Chemical Society of Hansraj College

Presents

JAMBOREE

— ONLINE FRESHERS' PARTY —

"Twadi freshers Freshers, saddi Freshers online..?"

4 PM Onwards | 09.01.2021





ISSUE 1



JRCS

ISSUE 1 : 14 DECEMBER 2020

JOURNAL OF
RASAYANATVA

THE CHEMICAL SOCIETY OF
HANSRAJ COLLEGE

Editors

1. Kirti Kashyap 'Tajjas'
2. Prashansa Mehta

Founders

1. Ankush Paul
2. Prateek Jain
3. Vasu Mittal

<https://rasayanatva.wixsite.com/hansraj>

Zoom Meeting

Prashansa Ravi Bhardwaj nandini Tiwari Deepak 1d451ace Abhishek 7317

MEM only in ACADEM

1 IISc → IISc + IITM

2 JNCASR → "

3 TIFR → "

4 IITs → "

5 IISRs → "

6 NITs | DU | KU | BNU

Chemistry

Chem Academy

Unmute Start Video Participants 46 Chat Share Screen Record Reactions Leave

Windows taskbar: 15:44 20-10-2020

Meeting now

Participants

Type a name

Presenters (7)

- tanishka
- ankush
- arpan
- chupalamadugu
- diksha
- divyot
- ishika
- namni
- karan
- karti
- manshi
- nikunja
- prashansa
- prateek244

Windows taskbar: 20:26 26-11-2020



RASAYANATVA



The Chemical Society of Hansraj College

PRESENTS

Junior-Senior Meetup

An Online, Fun-Filled, Interactive Session!

PLATFORM



Microsoft
Teams

26 November, 2020



7 PM Onwards



In case of any query, Contact: Arpan-9953263728 / Yashit-7355876165

Meet - mbs-fjcd-eww

meet.google.com/mbs-fjcd-eww?pli=1&authuser=0

REC

Anjeeta Rani
satish chand
sonam negi
indrani jha
manoj kumar
Ramesh Gardas
Aashutosh Soni
45 others
You

11:17 | mbs-fjcd-eww

English (United States)
English (India)
To switch input methods, press Windows key + space.

ENG IN 11:17 AM 23-10-2021

REC Ramesh Gardas is presenting

Press Esc to exit full screen

Outlook Web App | Editorial Manager | IITM Courses List | Insights into the | ACS Paragon Plus | Researchers | Meet - mbs-fjcd-eww

REC You're presenting to everyone Stop presenting

satish chand
indrani jha
Ramesh Gardas
Anjeeta Rani
sonam negi
manoj kumar
Aashutosh Soni
Shashank Sahu
Sakshi Arya
abhiram P
Prashansa Meh...
Yashika Dhirman
41 others
Aashutosh Soni
Shashank Sahu
43 others
You

11:18 | mbs-fjcd-eww

Type here to search 31°C 11:18 23-10-2021

REC Ramesh Gardas is presenting



satish chand

11:18 | mbs-fjcd-eww

Participants: Ramesh Gardas, indrani jha, Anjeeta Rani, sonam negi, manoj kumar, Aashutosh Soni, Shashank Sahu, 43 others, You


Controls: Mute, Video, Hand, Share, More, End Call

Meet - mbs-fjcd-eww

meet.google.com/mbs-fjcd-eww?pli=1&authuser=0

Apps Getting started - Bo... CPCB ENVIS | Contr... Reading list

REC Ramesh Gardas is presenting



satish chand indrani jha Ramesh Gardas

Anjeeta Rani sonam negi manoj kumar

Aashutosh Soni Shashank Sahu Swati

Sakshi Arya 46 others You

11:25 | mbs-fjcd-eww

Controls: Mute, Video, Hand, Share, More, End Call

Windows Taskbar: ENG IN 11:25 AM 23-10-2021

Meet - mbs-fjcd-eeew

meet.google.com/mbs-fjcd-eeew?pli=1&authuser=0

REC Ramesh Gardas is presenting

ACS Sustainable Chemistry & Engineering
Publication Date: March 1, 2021

Lab to Market: Where the Rubber Meets the Road for Sustainable Chemical Technologies

Case Title: ACS Sustainable Chem. Eng. 2021, 9, 2267-2289

The ACS Green Chemistry Institute reported a survey on how quantitative sustainability metrics are used in chemical manufacturing as well as future needs to translate promising green chemistry ideas into industrial technologies.

Major chemical and product manufacturers such as Dow, BASF, DuPont, and Procter & Gamble have used metrics and tools developed within their organizations to reduce the environmental footprints of their existing products and processes.

The extent of these reductions may be seen in the annual sustainability reports posted at the company websites.

Giraud, R. J.; Williams, P. A.; Sehgal, A.; Ponnusamy, E.; Phillips, A. K.; Manley, J. H. Implementing green chemistry in chemical manufacturing: a survey. ACS Sustainable Chem. Eng. 2014, 2, 2237-2242.

satish chand

indrani jha

Ramesh Gardas

Ankush Paul

sonam negi

manoj kumar

Aashutosh Soni

Shashank Sahu

Swati

Akanksha rao

53 others

You

11:30 | mbs-fjcd-eeew

Meet - mbs-fjcd-eeew

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REC Ramesh Gardas is presenting

Global value chain

Product life cycle

Product supply chain

Chemical supply chain

Raw materials extraction

Chemical manufacturing

Downstream manufacturing

Retail and distribution

Consumer use

Waste handling

Linear Economy

www.unep.org

Circular Economy

UN environment

Raw material - chemicals

Production process

Industrial waste

Waste management

Recycling process

Internal recycling process

Consumer products

Consumption

Waste

Recovered material

Recyclables

Reuse

Transportation risks

Containing unidentified chemicals

Unchecked health risks

Environmental risks

satish chand

indrani jha

Ramesh Gardas

Jagapathi Babu D...

sonam negi

manoj kumar

Mohammad RISHA...

Shashank Sahu

Swati

lakshya agarwal

53 others

You

11:32 | mbs-fjcd-eeew

Meet - mbs-fjcd-eww

meet.google.com/mbs-fjcd-eww?pli=1&authuser=0

Apps Getting started - Bo... CPCB ENVIS | Contr...

REC Ramesh Gardas is presenting

Petrochemical Based Solvent Market

3400 crore kg/year

By volume: 37,500 kilotons per year

***CAGR: Compound Annual Growth Rate**

***VOC: Volatile Organic Compounds**

- Automotive & Construction industries : Demand for petrochemical solvents
- Stringent environmental regulations : Deduction in use of VOCs Demand for bio & green solvents

Green Solvents:

- Bio-alcohols
- Bio-diols
- Bio-glycols
- Methyl soyate
- D-limonene
- Lactate esters
- IL
- DES

Green Solvents Pie Chart: Ethylene, Propylene, Methanol, Xylenes, Benzene, Toluene, Dioxane

CYRENE: A bio-based alternative for dipolar aprotic solvents (NMP, DMF, ...)

CAS Number: 53716-82-8

LEVoglucosenone

CELLULOSE

INR 20,000/ litre

satish chand, indrani jha, Ramesh Gardas, Sakshi Arya, sonam negi, manoj kumar, Mohammad RISHA..., Shashank Sahu, Swati, lakshya agarwal, 54 others, You

11:34 | mbs-fjcd-eww

Meet - mbs-fjcd-eww

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Apps Getting started - Bo... CPCB ENVIS | Contr...

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11:35 | mbs-fjcd-eww

Meet - mbs-fjcd-eev

meet.google.com/mbs-fjcd-eev?pli=1&authuser=0

REC Ramesh Gardas is presenting

Green Chemistry Pocket Guide

The 12 Principles of Green Chemistry

Provides a framework for learning about green chemistry and designing or improving materials, products, processes and systems.

1. Prevent waste
2. Atom Economy
3. Less Hazardous Synthesis
4. Design Benign Chemicals
5. Benign Solvents & Auxiliaries
6. Design for Energy Efficiency
7. Use of Renewable Feedstocks
8. Reduce Derivatives
9. Catalysis (vs. Stoichiometric)
10. Design for Degradation
11. Real-Time Analysis for Pollution Prevention
12. Inherently Benign Chemistry for Accident Prevention

www.acs.org/greenchemistry

ACS Chemistry for Life

ACS Green Chemistry Institute

The Chemistry of Nature

Green Chemistry Definition: *The design, development and implementation of chemical products and processes that reduce or eliminate the use and generation of hazardous substances.*

Green Chemistry is doing chemistry the way nature does chemistry – using renewable, biodegradable materials which do not persist in the environment.

Green Chemistry is using catalysis and biocatalysis to improve efficiency and conduct reactions at low or ambient temperatures.

Green Chemistry is a proven systems approach.

Green Chemistry reduces negative human health and environmental impacts.

Green Chemistry offers a strategic path way to build a sustainable future.

To catalyze and enable the implementation of green chemistry and engineering throughout the global chemical enterprise

Contact us: gci@acs.org

satish chand

indrani jha

Ramesh Gardas

Dr. Jai Bisigwan

sonam negi

manoj kumar

Mohammad RISHA...

Shashank Sahu

Swati

lakshya agarwal

59 others

You

Meet - mbs-fjcd-eev

meet.google.com/mbs-fjcd-eev?pli=1&authuser=0

REC Ramesh Gardas is presenting

Solvent Selection Guides

- Solvent selection guides offer assistance in identifying solvents
- Most support post-selection comparison between solvent options.
- Objective selection decisions for comparison can sometimes be compromised in such situations:
 - What is in the lab solvent cupboard?
 - What did I use last time?
 - What other esters are available commercially?
- The choice of solvent is often restricted to simple consideration of the chemistry
 - Polarity, incompatible functional groups, temperature window

https://www.acs.org/content/acs/en/greenchemistry

American Chemical Society ACS Green Chemistry Institute Pharmaceutical Roundtable

satish chand

indrani jha

Ramesh Gardas

BEENA JOSHI

sonam negi

manoj kumar

Mohammad RISHA...

Venkatesu Pannuru

Swati

lakshya agarwal

63 others

You

11:43 | mbs-fjcd-eev

Meet - mbs-fjcd-eev

meet.google.com/mbs-fjcd-eev?pli=1&authuser=0

REC Ramesh Gardas is presenting

ACS Solvent Selection Guides

- Solvent selection guides offer assistance in identifying solvents
- Most support post-selection comparison between solvent options.
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 - What is in the lab solvent cupboard?
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Venkatesu Pannuru

Swati

lakshya agarwal

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11:43 | mbs-fjcd-eev

Meet - mbs-fjcd-eev

meet.google.com/mbs-fjcd-eev?pli=1&authuser=0

REC Ramesh Gardas is presenting

Kamlet-Taft plots

P.G. Jessop, *Green Chem.*, 2011, 13, 1391

The figure displays four Kamlet-Taft plots arranged in a 2x2 grid. The top row shows 'common aprotic solvents' (left) and 'Green aprotic solvents' (right). The bottom row shows 'common protic solvents' (left) and 'Green protic solvents' (right). Each plot has 'High basicity' on the y-axis and 'Low polarity' to 'High polarity' on the x-axis. Solvents are represented by colored dots and labeled with their names and chemical structures. The 'Green' plots highlight solvents that are both aprotic and green.

satish chand

indrani jha

Ramesh Gardas

BEENA JOSHI

sonam negi

manoj kumar

Mohammad RISHA...

Venkatesu Pannuru

Swati

lakshya agarwal

64 others

You

11:48 | mbs-fjcd-eev

Meet - mbs-fjcd-eww

meet.google.com/mbs-fjcd-eww?pli=1&authuser=0

Apps Getting started - Bo... CPCB ENVIS | Contr...

REC Ramesh Gardas is presenting

Kamlet-Taft plots P.G. Jessop, *Green Chem.*, 2011, 13, 1391

11:48 | mbs-fjcd-eww

Windows taskbar: File Explorer, Microsoft Edge, Google Chrome, WhatsApp, Word, PowerPoint, Excel, Outlook, Teams.

System tray: ENG IN, 11:48 AM, 23-10-2021

Participant grid:

- satish chand
- indrani jha
- Ramesh Gardas (presenting)
- BEENA JOSHI
- sonam negi
- manoj kumar
- Mohammad RISHA...
- Venkatesu Pannuru
- Swati
- lakshya agarwal
- 65 others
- You

Meet - mbs-fjcd-eww

meet.google.com/mbs-fjcd-eww?pli=1&authuser=0

Apps Getting started - Bo... CPCB ENVIS | Contr...

REC Ramesh Gardas is presenting

Petrochemical Based Solvent Market
3400 crore kg/year

DATA BRIDGE

South America
Middle East & Africa
Europe
North America
APAC

2018: \$47.4 bn
2023: \$57.3 bn
By volume: 37,500 kilotons per year
CAGR 4%

*CAGR: Compound Annual Growth Rate

- Automotive & Construction industries : Demand for petrochemical solvents
- Stringent environmental regulations : Deduction in use of VOCs, Demand for bio & green solvents

*VOC: Volatile Organic Compounds

Green Solvents:
 > Bio-alcohols
 > Bio-diols
 > Bio-glycols
 > Methyl soyate
 > D-limonene
 > Lactate esters
 > IL
 > DES

Toluene, Styrene, Ethylene, Xylenes, Methanol, Propylene

CAS Number: 53746-82-8
LEVULUCOSENONE
CELLULOSE
CYRENE - A bio-based alternative for dipolar aprotic solvents (NMP, DMF, ...)
MERCK
INR 20,000/ litre

11:51 | mbs-fjcd-eww

Windows taskbar: File Explorer, Microsoft Edge, Google Chrome, WhatsApp, Word, PowerPoint, Excel, Outlook, Teams.

System tray: ENG IN, 11:51 AM, 23-10-2021

Participant grid:


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- indrani jha
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- BEENA JOSHI
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- manoj kumar
- Mohammad RISHA...
- Venkatesu Pannuru
- Swati
- Shashank Sahu
- 63 others
- You

Meet - mbs-fjcd-eww

meet.google.com/mbs-fjcd-eww?pli=1&authuser=0

REC Ramesh Gardas is presenting


Ionic liquids - History



Paul Walden
the discoverer of ionic liquids
(and the Walden inversion)

T. Welton,
Chem. Rev., **1999**,
99, 2071-2084

1914 ethylammonium nitrate $[EtNH_3][NO_3]$
1992 Air and water stable $C_{2}mIm$ ionic liquids



Kenneth R. Seddon
(1950-2018)
A Rock Star of Ionic Liquids

Applications of ionic liquids in the chemical industry
Natalia V. Plechkova and Kenneth R. Seddon
Chem. Soc. Rev., 2008, 37, 123-150

satish chand

indrani jha

Ramesh Gardas

BEENA JOSHI

sonam negi

manoj kumar

Mohammad RISHA...

Venkatesu Pannuru

Swati

Sarvagya Shukla

64 others

You

11:53 | mbs-fjcd-eww

Meet - mbs-fjcd-eww

meet.google.com/mbs-fjcd-eww?pli=1&authuser=0

REC Ramesh Gardas is presenting

Comparison of organic solvents with ionic liquids

Property	Organic Solvents	Ionic Liquid
Number of solvents	>1000	>1,000,000
Applicability	Single function	Multifunction
Catalytic ability	Rare	Common and tuneable
Chirality	Rare	Common and tuneable
Vapour pressure	Obeys the Clausius-Clapeyron equation	Negligible vapour pressure under normal conditions
Flammability	Usually flammable	Usually nonflammable
Polarity	Conventional polarity concepts apply	Polarity concept questionable
Tuneability	Limited range of solvents available	Virtually unlimited range means "designer solvent"
Cost	Normally cheap	Typically between 2 and 100 times the cost of organic solvents
Recyclability	Green imperative	Economic imperative
Viscosity, cP	0.2-100	22-40,000
Density, g/cm ³	0.6-1.7	0.8-3.3
Refractive index	1.3-1.6	1.5-2.2

Plechkova, N. V.; Seddon K. R. *Chem. Soc. Rev.* 2008, 37, 123-150

satish chand

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Pratima

Sarvagya Shukla

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You

12:00 | mbs-fjcd-eww

Meet - mbs-fjcd-eev

meet.google.com/mbs-fjcd-eev?pli=1&authuser=0

REC Ramesh Gardas is presenting

Literature Overview India

(TITLE-ABS-KEY ("ionic liquid") OR TITLE-ABS-KEY ("ionic liquid*")) AND (LIMIT-TO (AFRCOUNTRY, "India"))

6,055 document results

Select year range to analyze: 1994 to 2022

Documents by affiliation

Affiliation	Documents
University of Delhi	349
Bhabha Atomic Research Centre	139
National Chemical Laboratory India	218
Indian Institute of Technology Delhi	211
Indian Institute of Technology Madras	198
Institute of Chemical Technology	172
Indian Institute of Chemical Technology	171
Indian Institute of Technology Rourkela	166

6,055 document results 150+ Affiliations as on 01 OCT 2021

12:04 | mbs-fjcd-eev

satish chand

indrani jha

Ramesh Gardas

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sonam negi

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Swati

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Pratima

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Meet - mbs-fjcd-eev

meet.google.com/mbs-fjcd-eev?pli=1&authuser=0

REC Ramesh Gardas is presenting

ILs - Applications

STATUS:

- R&D
- Pilot
- Commercialized

PROCESS TECHNOLOGY

- deep desulfuration
- gas separation
- extractive distillation
- liquid-liquid extraction

FUNCTIONAL FLUIDS

- hydraulic oils
- storage media for gases
- lubricants
- surfactants

SYNTHESIS & CATALYSIS

- enzymatic reactions
- immobilisation of catalysts
- nanoparticle synthesis
- solvents for organic reactions

IONIC LIQUIDS

- thermal stability
- electrochemical stability
- low vapor pressure
- non-volatility
- non-flammability
- electric conducting
- tunable miscibility
- liquid over a wide range of temperatures

THERMODYNAMIC APPLICATIONS

- thermal fluids
- phase changing materials (PCM)
- sorption cooling media

ANALYTICS

- electrophoresis
- solvents for GC headspace
- matrix materials for MALDI-TOF-MS
- solvents for Karl-Fischer titration
- solvents for protein crystallisation

ELECTROCHEMICAL APPLICATIONS

- fuel cells
- metal deposition & metal finishing
- batteries
- dye-sensitized solar cells (DSCs)
- sensors
- supercapacitors

www.iolitec.de

io-li-tec

12:06 | mbs-fjcd-eev

satish chand

indrani jha

Ramesh Gardas

BEENA JOSHI

sonam negi

manoj kumar

Swati

Venkatesu Pannuru

Pratima

Shashank Sahu

66 others

You

Meet - mbs-fjcd-eww

meet.google.com/mbs-fjcd-eww?pli=1&authuser=0

REC Ramesh Gardas is presenting

IUPAC Ionic Liquids Database Project

Ionic Liquids Database - ILThermo (v2.0)

NIST Standard Reference Database #147

Status

Last update:	July 2, 2021
Ionic liquids:	2482
All compounds:	4708
References:	3764
Pure ionic liquid systems:	2063
Binary mixture systems:	14687
Ternary mixture systems:	3546
Data points (pure ionic liquids):	131932
Data points (binary mixtures):	430847
Data points (ternary mixtures):	219475
Total data points:	782284

15,000+ data from IITM

<http://ilthermo.boulder.nist.gov> Updated on July 02, 2021.

satish chand

indrani jha

Ramesh Gardas

BEENA JOSHI

sonam negi

manoj kumar

77 others

You

In-call messages

Messages can be seen only by people in the call and are deleted when the call ends.

satish chand 12:10
<https://forms.gle/dpb98izR5Lzav9JZ7>
 Attendance-cum-feedback form

You 12:14
 do you think that much research is needed in theoretical chemistry and molecular modelling specifically in modeling new solvent molecules which are better to use?

sumit khatri 12:15
 Sir, now a days new class of cheap biocompatible solvents like protic ionic liquids or Deep eutectic solvents are replacing native ionic liquids as they are expensive, if they are being replaced in near future then what is applicability of their patents?

Send a message to everyone

12:18 | mbs-fjcd-eww

Meet - mbs-fjcd-eww

meet.google.com/mbs-fjcd-eww?pli=1&authuser=0

REC Ramesh Gardas is presenting

ILs for Crude-Oil Sludge Dissolution

Application 1
Oil India Ltd.

Crude Oil : higher hydrocarbon, particularly waxes and asphaltenes

SARA analysis of TBS (by Oil India Ltd.)

Aliphatics	: 25 %
Aromatics	: 68 %
Asphaltenes + Resins	: 7 %

Solvent : TBS : IL
100 : 1 : 0.1 (by mass)

Dissolution of TBS (Tank Bottom Sludge) by using IL-co-solvent

© Sakthivel, S. Velazhagan, R.L. Gardas, J.S. Sangodi, *REC Advances* 1 (2014) 31097.

satish chand

indrani jha

Ramesh Gardas

BEENA JOSHI

sonam negi

manoj kumar

75 others

You

In-call messages

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satish chand 12:19
<https://forms.gle/dpb98izR5Lzav9JZ7>
 Attendance-cum-feedback form

BEENA JOSHI 12:21
 Good afternoon sir,
 It was such a wonderful talk on such an important topic especially during the time when we are facing climatic changes.
 I would like to know that since you have mentioned many solvents which are environment friendly and the positive aspects of it and we see everyday that we are facing the climatic crisis which will not get reversible but can be reduced (realising that industries is the main cause of it) yet what is the reason for these industries to not use these solvents.

Send a message to everyone

12:21 | mbs-fjcd-eww

DEPARTMENT OF CHEMISTRY

HANSRAJ COLLEGE
UNIVERSITY OF DELHI
(NAAC grade A+ with CGPA 3.62)



In Collaboration with

IQAC HANSRAJ COLLEGE

Invite you to a webinar on

Environmentally benign Solvents for Sustainable Developments



PROF. RAMESH L. GARDAS
IIT Madras



October 23, 2021
Saturday



11 AM to 12:30 PM



Webinar link (Google meet) :

<https://meet.google.com/mbs-fjcd-eev>

Registration link : https://forms.gle/sS3XuMhhFqx5VqL_o6

Dr. Indrani
Co-ordinator

Dr. Satish Chand
Convenor
(Chemical Society)

Dr. Jyoti Singh
Teacher-in-Charge

Dr. Mona Bhatnagar
Director IQAC

Prof. (Dr.) Rama
Principal

Prashansa

Ravi Bhardwaj

nandini Tiwari

Abhishek 7317

Deepak

Rank

IITs

NITs

JNCASR

TIFR

IITs

IISRS

NITs/IDU/HU/BAU

Chemistry

Participants (46)

Find a participant

- P Prashansa (Me)
- CA Chem Academy (Host)
- 1 1d451ace
- A7 Abhishek 7317
- AC Abhishek Chauhan
- Ankush Paul
- A Anushka
- AJ Arpita Jain(9-G)
- Bhawna Arya
- Deepak
- HB Himani Bisht
- HK Hitesh Kumar Singh
- Ishika Dhanwani

Invite Unmute Me Raise Hand

Chat

Windows taskbar with various application icons and system tray showing time 15:48 and date 20-10-2020.



Mobile interface showing a list of participants in a video call. The list includes:

- You
- Dimpy Ma...
- Kirti Kash...
- p

Logo of the Society

