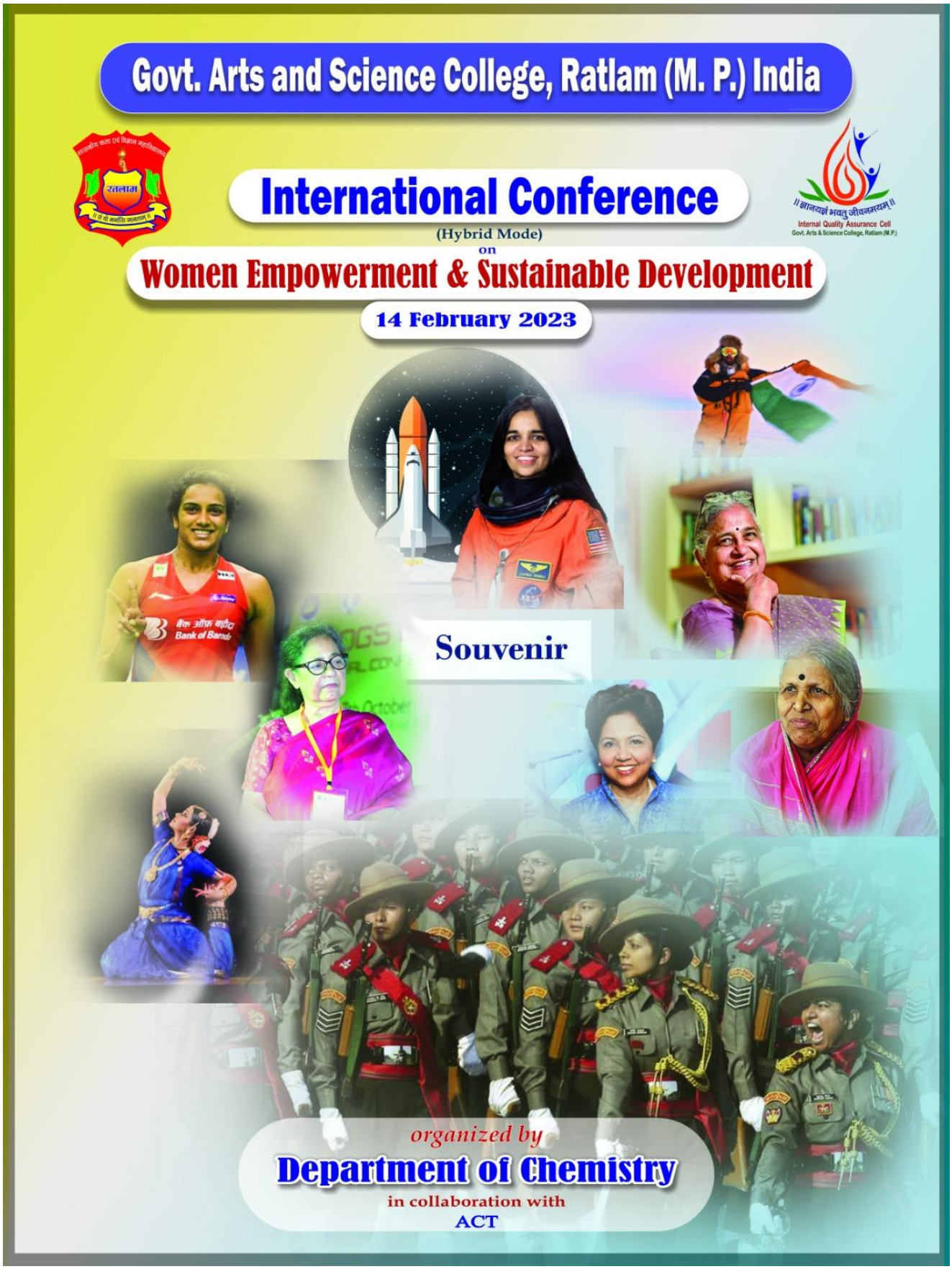
Govt. Arts and Science College, Ratlam (M. P.) India
International Conference
(Hybrid Mode)
on
Women Empowerment & Sustainable Development
14 February 2023
Souvenir
organized by
Department of Chemistry
in collaboration with
ACT

International Conference (hybrid Mode)

On

Women Empowerment and Sustainable Development

14 February 2023

Editors

Dr. Raju Harode

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Dr. Divya Patidar


Govt. Arts & Science College, Ratlam (M.P.) India
Chemistry Department organizes
GWB
An International Conference
On
Hybrid mode
Women Empowerment & Sustainable Development
ACT
ChemVoices
https://iupac.org/gwb
Online mode
10:00 am to 12:15pm
Eminent Speakers
In
Collaboration with ACT
On 14th February 2023
Offline mode
12:30 pm onwards
Eminent Speakers
Dr. Uma Sharma
(Chief Guest)
Prof.& Head
School of Studies in Chemistry & Biochemistry
Vikram university, Ujjain (M.P.)
Dr. Neerja Saraswat
Ph.D., PMP
Principal Scientist
Canam Bioresearch Inc.
Winnipeg, Canada
Dr. Shri Lakshmi
Co founder : Triphase Pharmaceuticals Pvt. Ltd
Co founder : AA PROBICS
Mysore (Karnataka)
MS. Sheela Surana
(Chief Guest)
DSP (Women Cell)
Ratlam (M.P.)
Dr. Savita Dixit
Professor and Head
Department of Chemistry
Maulana Azad National Institute of Technology, Bhopal (M.P.)
Dr. Manjul Verma
Sr. Global Program Regulatory Manager
Novartis Healthcare Pvt. Ltd.
Hyderabad (A.P.)
Mr. Arpan Shukla
MD
Accenture
USA
Registration Link : https://docs.google.com/forms/d/e/1FAIpQLSftag0UA4P-w5c7yu3-LCpZrV7FJEHQZaig-uscgb6RBmK2Ew/viewform?usp=pp_url


Dear Sir/Madam
Greetings to all,
We are pleased to inform you that Department of Chemistry, Govt. Arts and Science College Ratlam (M.P.), India, is going to organize One day International Conference Under IUPAC (International Union of Pure and Applied Chemistry) GWB-23.
The Theme of the conference is
"Women Empowerment and Sustainable Development"
Scheduled on 14th February in hybrid mode. Younger students, Academicians, Industrialists and Research Scholars will gather and bring solutions of different issues which based on this theme.
For any query, Email to:
meenalgupta30apr@gmail.com
Cont. No. 9907025576
Organizing Board
Dr. Nisha Jain
Dr. K. Thakur
Mr. D. Bourasi
Dr. R. Mansoori
Mr. M. Dohare
Dr. K. Rathore
Mr. V. Solanki
Dr. Shital Joshi
Dr. Divya Patidar
Sponsored by MPHEQIP.
Under the aegis of IQAC,
GASC Ratlam, MP
Objectives
This Conference will elaborate different issues and solution on
✓Breaking barrier in Science
✓Women Empowerment
✓Gender Equality
✓Role of Women in STEM
✓Women as Entrepreneurs
✓Contribution of women in all streams of Science for sustainable development
14th Feb-2023
Registration is Free
Call for Papers / Articles
Submission of abstract and full length paper on or before 8th Feb-2023.
Font: Times New Roman, Title bold 14, author name 12, and key words font 10, all text 11.
Best oral and best poster paper presentation award will also be given. Poster size: 18" x 12" (inch)
Souvenir will be published
Token will be provided who Presents the paper.
Sponsored by
State Bank of India, Ratlam Branch (M.P.)
GWB-23
Chief Patron
Dr. Arpan Bharadwaj
Additional Director
HED, Ujjain
Patron
Dr. Y.K.Mishra
Principal
Govt.Arts and Science College, Ratlam
President JBS
Mr. Vinod Karamchandani
Organizers
Dr. Brajesh Pare
President-ACT
Prof. & Head
(Chemistry Dept.)
Govt. Madhav Science College, Ujjain
Dr. Raju Harode
Prof.& Head
(Chemistry Dept.)
GASC, Ratlam
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(Economics Dept.)
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GASC, Ratlam
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Prof. of Mathematics
Coordinator-IQAC
GASC, Ratlam
Dr. Meenal Gupta
Asst. Professor
(Chemistry)
Convener
GASC, Ratlam
Mayuri Shrivastav
Chief Manager
SBI Ratlam

शुभकामना सन्देश

यह जानकार बहुत प्रसन्नता है कि शासकीय कला एवं विज्ञान महाविद्यालय, रतलाम के रसायन विभाग द्वारा 14 फ़रवरी को ग्लोबल वूमेन ब्रेकफास्ट के तत्वाधान में **"Women Empowerment and Sustainable Development"** अंतर्राष्ट्रीय संगोष्ठी का आयोजन किया जा रहा है I

निश्चित ही इस संगोष्ठी से महिला के सशक्तिकरण, उनके सामाजिक तथा वैज्ञानिक प्रोद्योगिकी में राष्ट्रीय-अंतर्राष्ट्रीय स्तर के योगदान पर विचार-विमर्श होगा, जो एक प्रभावशाली कदम साबित होगा I

महाविद्यालय को इस संगोष्ठी के आयोजन तथा इसके सफलतापूर्वक पूर्ण होने की अग्रिम शुभकामनाएं I

रतलाम नगर विधायक

चेतन्य कुमार काश्यप

JBS President

Message

This is a great pleasure to us that the Chemistry department of our institute is organizing An International conference on Women Empowerment and Sustainable development in collaboration with ACT, TIFR Mumbai, under the umbrella of GWB on 14 February 2023 in hybrid mode.

I congratulate department of Chemistry for organizing an international conference on this topic that indicates current scenario in the field of sustainability as well as women empowerment for growing present.

I also extend my best wishes to all eminent speakers, chief guests and participants who will share their innovative knowledge while gathering here from different regions of India and abroad through online platform and physical presence as well.

My warm wishes and congratulations for publishing a "Souvenir of the Conference" that will summarize the memory of the upcoming event.

Vinod Karamchandani

(President JBS)

Principal

Govt. Arts And Science College, Ratlam

Message

It is a great pleasure that our institute Govt. Arts and Science College, Ratlam (M.P.) is going to organize an international conference in hybrid mode on the topic **"Women Empowerment and Sustainable Development"** in collaboration with ACT and under the umbrella of International Union of Pure and Applied Chemistry (IUPAC), GWB on 14 February, 2023.

The Chemistry department has been successfully organizing this event since 2021, in this third year the conference will be organized in online as well as physical mode.

My wishes to all eminent speakers, chief guests and participants who will share their innovative ideas, scientific seeking that give solution in current scenario where humanity requires to live through sustainably developing goals that will lead to green life and green ecosystem.

The goal of the GWB series is to establish an active network of people of all genders to overcome the barriers of gender equality in all science streams.

Women play their vital role in family, society as well as in various fields i.e. education, politics, administration and share their knowledge in scientific fields as entrepreneurs.

My best wishes to all delegates, organizers and the whole team of the department to make this event a grand success.

Chief Guest

Dr. Uma Sharma
Prof& Head
School of Studies in Chemistry & Biochemistry
Vikram University, Ujjain (M.P.) India

I am feeling great pleasure in stating that Department of Chemistry, Govt. Arts and Science College, Ratlam (M.P.) is organizing this international event since last three years. The theme of **(GWB 23) "Women Empowerment and Sustainable Development"** is quite relevant and vital.

This event is being organized in hybrid mode to provide platform of discussion among eminent women scientists of national and international repute. It will provide roadmap for achieving sustainable development and women empowerment.

Women Empowerment means strengthening **Nature's Unique Creation** for aesthetic, intellectual, cognitive and spiritual evolution of science and society.

I wish this international conference a grand success.

Sharma 14.02.23

(Uma Sharma)

Inspiring Academacian and Scientist

Invited Eminent Speaker
Dr. Savita Dixit
MANIT
Professor of Chemistry

प्रान्त भूषण पुरस्कार-२०२३ से सम्मानित-

भोपाल@पत्रिका. ग्लोबल स्कॉलर्स फाउंडेशन के राज्यस्तरीय सम्मान समारोह में चयनित व्यक्तियों को भूषण पुरस्कार दिया गया। यह कार्यक्रम में मौलाना आजाद राष्ट्रीय प्रौद्योगिकी संस्थान (मैनिट) की प्राध्यापिका डॉ. सविता दीक्षित को शिक्षण एवं विज्ञान के क्षेत्र में वर्ष 2023 का 'मोस्ट इनोवेटिव प्रोफेसर ऑफ द ईयर' पुरस्कार दिया गया है।

डॉ. दीक्षित अपनी खोज एवं शोध कार्य से वातावरण संरक्षण पर निरंतर कार्य कर रही हैं। जिनमें फ्लाई ऐश एवं जिओ पॉलिमर का अनुपात नियंत्रण कर पेवर ब्लॉक का निर्माण तथा मिट्टी की उर्वरता को बनाए रखने के लिए सीमेंट का सस्ता विकल्प के तौर पर संशोधित कंक्रीट संरचना का आविष्कार प्रमुख है जिसके लिए उन्हें भारत सरकार द्वारा पेटेंट प्रदान किया गया है।

City भास्कर

भोपाल, सोमवार, 6 दिसंबर 2021 | 5

मैनिट के दो प्रोफेसर्स का रिसर्च वर्क | एक ने गोबर से बनाया फाइबर, दूसरे ने तैयार किया इलेक्ट्रिक व्हीकल के लिए चार्जिंग स्टेशन

डॉ. सविता दीक्षित को ग्रांट हुई पेटेंट, डॉ. शैलेन्द्र कुमार का रिसर्च पेपर जर्नल में पब्लिश

साइंटिस्ट्स ऑफ अवर सिटी

गोबर से ऐसा फाइबर मटेरियल बनाया...

20 मिनट में ही करेगा एक घंटे जितनी चार्जिंग

• प्रोफेसर डॉ. सविता दीक्षित

पत्रिका 3-Feb-2022

प्रोफेसर सविता और गजेन्द्र को प्राकृतिक फाइबर की खोज के लिए मिला पेटेंट

भोपाल. मैनिट के रसायन अभियांत्रिकी विभाग की प्राध्यापिका प्रो. डॉ. सविता दीक्षित एवं यांत्रिकी विभाग के प्राध्यापक प्रो. गजेन्द्र दीक्षित को प्राकृतिक फाइबर की खोज के लिए भारत सरकार ने पेटेंट प्रदान किया है। डॉ. दीक्षित का यह पांचवां पेटेंट है, इससे पहले उन्हें अपने चार अन्य खोजों के लिए भारत सरकार द्वारा पेटेंट मिल चुकी है। अपने पांचवें पेटेंट के बारे में बताया कि कंप्रेशन माउल्डिंग तकनीक की मदद से प्राकृतिक रेशे, कॉयर व एपॉक्सी रेजिन को एक खास अनुपात में मिलाकर हम उच्च विशिष्ट मापांक और वांछित शक्ति की प्राकृतिक फाइबर बना सकते हैं।

उन्होंने यह भी बताया कि इस फाइबर के निर्माण में जरूरत सभी सामग्री को अपने प्राकृतिक रूप में ही इस्तेमाल किया जाता है, इसलिए इससे बनने वाले फाइबर पदार्थ एक जैवनिम्नीकरणीय फाइबर की श्रेणी में आते हैं। पुराने समय से लकड़ी उद्योग में कृत्रिम रेशों का इस्तेमाल बड़े पैमाने पर किया जा रहा है, जिससे हमारे वातावरण को बहुत नुकसान हुआ है। लकड़ी का प्रयोग फर्निशिंग एवं कार्पेंटरी में बहुतायत मात्रा में होने से प्रकृति पर इसके कई दुष्परिणाम व्यापक तौर पर दिखाई देते हैं। अतः प्राकृतिक फाइबर की नई खोज, लकड़ी और फर्निशिंग उद्योग के लिए एक महत्वपूर्ण प्राकृतिक समाधान है और वातावरण को सुरक्षित रखने में एक अनोखा कदम है।

Invited Eminent Speaker: **Dr. Shrilakshmi Desiraju (Co-Founder** Triphase Pharma and AA Probics, Mysore)

Shrilakshmi is a scientist with a Ph.D. in Chemistry. She has 22 years of research experience in both national and international laboratories. Her desire to be an entrepreneur motivated her to pursue an MBA in Technology Commercialization from the University of Alberta, Canada. She later established Triphase Pharmaceuticals Pvt. Ltd, a research and development enterprise creating enzymes, temperature stable probiotics, prebiotics and nutraceuticals. Dr. Shrilakshmi has successfully patented some of her products and has received several achievement awards.

Her message to younger self: Believe in yourself and be persevering. That’s all that it takes to be successful. “Mentally, women are a strong species blessed with multitasking capabilities. Let us accept and glorify the dual role of home making and being a professional or an entrepreneur.”

Shrilakshmi says she did not encounter any gender bias as a professional or as an entrepreneur in India. She believes that entrepreneurship is gender neutral. In her experience an entrepreneur needs to constantly up-skill in order to succeed. For example, while she was working, she completed her MBA in technology commercialization which gave her the edge to become an entrepreneur after being a researcher. She believes one has to take the opportunities when they come along or create them.

S. No.	Delegates	Places
1	Shri Chetanya Kashyap	Blessing message (Vidhayak- Ratlam (M.P.)
2	Shri Vinod Karamchandani	Blessing message - Jan Bhagidari President- Ratlam (M.P.)
3	Dr. Y. K. Mishra	Blessing message- Patron and Principal
5	Dr. Uma Sharma	Blessing message- Chief guest
6	Dr. Neerja Saraswat	Canada
7.	Dr. Manjul Verma	Hyderabad
8.	Dr. Shrilakshmi	Mysore
9.	Dr. Savita Dixit	MANIT Bhopal
10.	Er. Arpan Shukla	USA
11.	Ms. Anubha Kanade	Govt College, Sailana Ratlam (M.P.)
12.	Dr. Madhu Gupta	Govt. PG Science College, Ratlam (M.P.)
13	Promila Kumari	Rajpur (Himachal Pradesh)
14	Sarita metal M.Vijaya Kumar Korutla	Women Empowerment In Veterinary Field: A study
15	D.Sukhaprada Devi Govt: Degree&P.G College Korutla	Women, political leadership and substantive representation: the case of India – a study
16	Prof . Rajesh sreevastava Prof.Keerthi sreevastava Bhopal	The Influence Of Culture On Ethnic Women's Use Of Microfinance For Empowerment In India
17	Dr.A.Padma Chaitanya bharathi Institution of technology , Gandipet , Hyderabad Talangana	The Universal Causes And Effects Of Women's Empowerment
18	Uma.M. M.Vijaya Kumar ,Bhopal Government first grade college kolar -563101, Karanata	The Universal Causes And Effects Of Women's Empowerment For Developing Countries
19	Nagalaxmi Nakeetha Research scholar Department of mathematics Dr.B.R.Ambedkar open university , Hyderabad	Empowering Women: Empowering India
20	Kusuma tummala Assistant professor Department of humanities and ssciences VNR Vignana jyothi institute of	Analyzing The Role Of Education In Women Empowerment In India – A Study

	Engineering and Technology ,Bachupally , kukatpally, Hyderabad	
21	Dr Aarti Nagar	Sustainable development in the field of water and sanitation
22	Dr. Shital Joshi	Schiff base N,N‟-Bis[2-salicylideneamino]ethane-1,2-diamine (TTS) derived cyclic ionophores S_1, S_2 and S_3:Preparation, characterisation and *in vitro* antibacterial activity
23	Dr. Niharika Vyas Public Health Engineering Department Ratlam	Fluorosis: Fluoride contamination in drinking water
24	Akanksha Shrivastava[1] and Abhijeet Shrivastava[2] Assistant Professor, [1]Swami Vivekanand Govt. College, Susner, M.P., India [1]akanksha.shrivastava.svgc@gmail.com System Engineer, [2]Tata Consultancy Services, Indore, M.P., India [2]shrivastavaabhijeet91@gmail.com	Sustainable development and Climate change
25	Dr. Divya Patidar Govt. Arts And Science College Ratlam (M.P.) dpatidar.1604@gmail.com	Sustainable Development Objectives And Cleaner Production In The Textile Industry
26	Aarti Patidar A.P.J. Abdul Kalam University, Indore Rti.patidar@gmail.com	Sustainable development goals and Drug relation
27	Dr. Uma Sharma, Komal Sharma School of Studies in Chemistry and Biochemistry, Vikram University, Ujjain	Molecular Tailoring of Receptors and Transport of Amino Acids through liquid membranes
28	Mansi Sharma, M.Sc.Chemistry Govt. Arts and Science College Ratlam (M.P.)	Women as Entrepreneurs
29	Dr. Chanchala Sharma Dept. of Chemistry, Govt. Bhagat Singh College Jaora, Ratlam M.P.	Molecular interation study of Binary Solutions of n-amyl acetate(1) and isopropanol(2) at Different Temperatures
30	Dr.Vandana Rajawat Chemistry Department, Bhagat Singh Govt. P.G. College,	Role of Green Chemistry In Sustainable Development

	Jaora(M.P)	
31	Dr. Rupendra Farswan[1] Dr. Ranjit Singh Rawat[2] Sports officer, Govt. Arts and Science college[1], Govt. College Sanwer[2], Indore Ratlam (M.P.)	Effect of Physical Conditioning On Cardio- Respiratory Endurance At Different Surface
32	Ritu Bisht, Assistant Professor, Department of civil engineering Shri yogindra Sagar institute of technology and Science, Ratlam (M.P).	Impact of Domestic Bio Medical Waste On Chloride And Nitrate Of Soil
33	Dr Mamta Bhatnagar Dept of Chemistry GurugramUniversity,Gurugram Email: bhatnagarmamta@gmail.com	Women Empowerment and Sustainable Development
34	Rekha Dubey Swami Vivekanand Public School, Rajgarh (M.P.)	महिला सशक्तिकरण
35	Aditi Joshi GASC, Ratlam (M.P.)	Contribution of Women for Sustainable Development
36	Ashutosh Sharma Govt. Arts and Science College, Ratlam (M.P.)	Green Chemistry Alternatives for Sustainable Development in Organic Synthesis

Conference Schedule: Online mode (9:50 am to 11:30 am)

9:50 -9:55 am	**Convener's talk** **Dr. Meenal Gupta, Asst. Prof. (Chemistry), GASC, Ratlam (M.P.)**
9:55 am	**Welcome speech from Professor & Head desk /Patron & Principal desk** **Organizer** **Dr. R. Harode, HoD, Dept. of Chemistry, GASC, Ratlam (M.P.)**
10:00 am	**Speech of Chief Guest** **Dr. Uma Sharma** **Professor & Head, Dean (Faculty of Science)** **School of Studies in Chemistry & Biochemistry,** **Vikram University, Ujjain (M.P.)**
10:05 am	**Lecture of Eminent Speaker** **Dr. Neerja Saraswat** **Ph.D., PMP** **Principal Scientist Canam Bioresearch Inc. Winnipeg, Canada**
Title of Talk	**Women breaking barriers in Science through gender inequality**
10:25 am	**Vote of thanks by Dr. Nisha Jain, Professor, GASC, Ratlam**
10:30 am	**Lecture of Eminent Speaker** **Dr. Manjul Verma** **Sr. Global Program Regulatory Manager** **Novartis Healthcare Pvt. Ltd., Hyderabad (A.P.)**
Title of Talk	**World - A better place for everyone**
10:50 -11:30 am	**Lecture of Eminent Speaker** **Dr. Shri Lakshmi** **Co founder : Triphase Pharmaceuticals Pvt. Ltd** **Co founder : AA PROBICS,Mysore**
Title of Talk	**Women Empowerment- through Technology and Commercialization**
Vote of thanks by Dr. Nisha Jain (Professor)	

Technical Session-II
Inaugural Session Offline mode and Live through link
Conducted By Dr. Swati Pathak (Professor)
12:30 to 12:50 pm (Inauguration and Welcome)

12:30-12:50 pm	**Welcome speech by Principal – Dr. P. C. Patidar** **Introduction to Women Empowerment and Sustainable development** **By- Dr Vinod Sharma (Professor of Economics, World bank Co-ordinator)** **Welcome talk by SBI Bank Manager- MS Mayuri Shrivastava** **Brief Introduction of all speakers & by Dr. Nisha Jain (Professor)**
12: 50 pm	**Speech of Chief Guest** **MS. Sheela Surana** **DSP (Women Cell) Ratlam (M.P.), India**
Title of talk	**General talk on Women Empowerment**
1:10 pm-2:00 pm	**Speech of Eminent Speaker** **Dr. Savita Dixit** **Professor and Head** **Department of Chemistry** **Maulana Azad National Institute of Technology (MANIT), Bhopal (M.P.)**
Title of talk	**Women Empowerment and Sustainability**
2:00 pm	**Speech of Eminent Speaker** **Er. Arpan Shukla** **MD, Accenture, USA**
Title of talk	**Sustainability through Information Technology**
2:25 pm	**Ms Anubha Kanade** **Assistant Professor, Govt. College, Sailana**
Title of Talk	**Women as Entrepreneurs**
2:35 pm	**Vote of thanks by Dr. Kavita Thakur (Assistant Professor)**
2:40 pm : Refreshment Program / Plantation program	
2:50 pm Technical Session- III (Oral and Poster presentation Session) **(Conducted By Dr. Meenal Gupta & Dr. Divya Patidar)** **(Chairpersons- Dr. Nisha Jain, Dr. Madhu Gupta and Ms. Anubha Kanade)** **4:00 pm : Vote of thanks (Prof. Dinesh Bourasi)**	
4:15 pm : Valedictory Function	

International Conference On Women Empowerment & Sustainable Development

Oral Presentation

S.N.	Name of Candidate	Presentation Title
1	Dr. Anubha Kanade Govt College, Sailana	Barrier Faced By Women In Enterpreneurship Ecosystem
2	Dr. Niharika Vyas Public Health Engineering Department, Ratlam	Fluorosis, Fluoride Contamination In Drinking Water
3	Dr. Maina Malviya Govt M. G. College, Jawad	The Role of Luminaries of Chem - Science
4	Dr. Aarti Nagar Swami Vivekanand College, Susner	Sustainable Development In The Field Of Water & Sanitization
5	Dr. Komal Sharma School of Studies in Chemistry and Biochemistry, V.U. Ujjain (M.P.)	Molecular Tailoring of Receptors and Transport of Amino Acids through liquid membranes
6	Aditi Joshi M.Sc. I Sem	Contribution of Women For Sustainable Development
7	Mansi Sharma M.Sc. I Sem	Women As Enterpreneur
8	Hitanshi Parihar B.Sc. IIIYear	Affordable And Clean Energy
9	Tanisha Chordiya B.Sc. III Year	Clean Water And Sanitization
10	Shruti Rajpurohit B.Sc. II Year	Introduction to Green Chemistry and it's Role in Clean and Affordable Energy
11	Aakansha Shrivastav Swami Vivekanand College	Sustainable Development & Climate Change
12	Aarti Patidar Dr. A. P. J. Abdul Kalam University, Indore	Sustainable Development And Drug Relation
13	Devangi Pandya	The Role of Chemistry used in Sustainable Development

S.N.	Group Name & Class	Poster Presentation Poster Title	Name
1	M.Sc. I Sem	Quality Education (SDG 4)	**Mohit Kumar**
2	M.Sc. I Sem	Gender Equality (SDG 5)	**Mansi Sharma**
3	M.Sc. I Sem	Zero Hunger Concept (SDG 2)	**Vibhanshu Baghel**
4	B.Sc. II Year	No Poverty (SDG 1)	**Vanshika Mohite** **Ayushi Joshi**

			Harshit Gaur Jayraj Singh Chandrawat
5	B.Sc. III Year	Affordable And Clean Energy (SDG-7)	**Hitanshi Parihar Prateek Barwal Namita Bamaniya**
6	B.Sc. III Year	Clean Water & Sanitization (SDG-6)	**Tanisha Chordiya Trivedi Manan Harshit Jain**
7	M.Sc. III Sem	Sustainable Development Goals	**Diksha Songara Jyoti Rathore**
8	M.Sc. I Sem	Good Health & Well Being (SDG 3)	**Aditi Joshi Harsh Vyas**
9	B.Sc. II Year	Decent Work & Economic Growth (SDG8)	**Anahita Mehra Garima Chouhan Harshit Gour Jayraj Singh Chandrawat**
10	B.Ss. II Year	Sustainable Development Goals	**Arun K Dhakar Mohit Kumar**
11	Research Scholar GASC, Ratlam	Women Empowerment	**Lavina**

(Abstracts)

Empowering women is a Key to a better future

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Women's empowerment can be defined to promoting ***women's sense of self-worth***, their ability to determine their own choices, and their right to influence social change for themselves and others.

It is closely aligned with female empowerment – a fundamental human right that's also key to achieving a more peaceful, prosperous world.

Empowerment expresses at different level and also in different aspects of life. Significantly the concept takes ideological commitments into its formations. It is based on gender, equality, ability of **self-assertion** and enabling **skill development**. The term has been used to represent a wide range of concepts and to describe a proliferation of outcomes.

Empowerment is, first and foremost, about power; changing power relations in favour of those who previously exercised little power over their own lives. Empowerment is a very wide term and to each his own. The general idea of empowerment, however is to include others who are often neglected in the decision-making process. In this case, inclusion and acceptance of women in such roles is empowerment.

The most crucial form being educational empowerment because education is truly a leveler and it brings all on equal footing. When one is educated it should not matter whether they are men or women as long as they get the jobs done. And that is why education should not be denied to a girl which is still an unfortunate truth in many parts of India.
It is these educated girls who become women with self-confidence, intellect and conscience who excel in every field and can also become heads of the department and be decision-makers. Education is a great tool to empower women as it will bridge all other gaps in our society and we as a nation will prosper.

There are a series of guidelines that you can carry out to work on your own empowerment and become an empowered woman:

1. **Know yourself-** The first thing you should do is analyse who you are and what your aspirations are. Only by knowing your starting point and your goal will you be able to make the appropriate decisions to achieve it. Have a well-defined objective, clearly knowing why you want to achieve it will be your best driving force to move forward.
2. **Set short-term and long-term goals**- By setting goals that are too ambitious you run the risk of losing your motivation and willpower, as they are more difficult and slow to achieve. What can you do to avoid this? In addition to setting long-term goals, break them down into small milestones that you can overcome little by little and allow you to feel satisfied and focused.
3. **Get out of your comfort zone -** An empowered woman is not afraid to take on new challenges. Get out of your comfort zone when you have the opportunity and see how you are conquering your fears and acquiring a new experience that will help you open many doors and value yourself more and more.
4. **Build a network of contacts** - On this path to becoming an empowered woman, you are not alone. In fact, one of the qualities of female empowerment is mutual support. Hence, it

is very useful to network and establish relationships with other professionals in the same situation or established leaders to share experiences, knowledge and advice.

5. **Be yourself** -It's okay to seek inspiration or support in other cases of effective leadership, but don't forget to be authentic and guide yourself by your values and purposes. Only by believing in your goals and acting independently will you be able to advance on this path.

6. **Work on your self-confidence-** You are what you believe, so you must reinforce the security in your potential without falling into banality. That is why it is so important to develop self-confidence, a quality that you can gain through improving skills in personal and professional fields.

7. **Educate yourself.** There is no better way to increase self-confidence than through training, as it allows you to reinforce your strengths and minimise your weaknesses. Acquiring new skills will allow you to feel prepared to face new professional stages and redesign your limits. That said, betting on lifelong learning or continuous learning is a great option.

Many female professionals in history are models of female empowerment: great researchers, such as Rosalind Franklin (mother of the DNA chain) or Marie Curie (discoverer of radium and polonium); defenders of equality between men and women from politics, such as Emmeline Pankhurst or Clara Campoamor, and artists or creators, such as Frida Kahlo or Coco Chanel.

A closer contemporary example is that of Michelle Obama. The former first lady stands as a global reference for female empowerment thanks to her words, speeches and actions.

In countries with fewer resources, there are also clear examples of women's empowerment. One of them is Malala, the Pakistani activist who won the Nobel Peace Prize in 2014 for her defense of civil rights, especially those of women.

At the corporate level, an inspiring example is Sheryl Sandberg, Facebook's chief operating officer, who takes every opportunity to highlight the need to incorporate women at all professional levels.

The demand for women’s empowerment makes clear that every human being must need to be treated in a way where their dignity and rights are not getting violated. For a long millennium of time women are suffering from this harassment where their very existence is just nothing more than material, but as the world has evolved and women can now fight for their own rights, there are few sections of women to whom the light has not been yet ventured. To live in a civilized world it is our duty as a human to help people to enlighten and take them out of any dogmatic state of mentality where it harms society in moving forward. We must educate our women and children so that they can carry on the legacy to the upcoming generations and take a part in building a nation.

Barriers faced by woman in entrepreneurship ecosystem

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India's success story has left behind a key demographic group: women. In spite of developments in social parameters, India's progress does not convert to the economic inclusion and advancement of women. Instead, women's contribution in the labour force has decayed and is estimated to decay further because of labour movements, technological disruption and restricting social barriers. In the coming era, India will have the biggest working-age populace in the world with over 1 billion individuals. This demographic bonus, when blended with a progressively educated population, has the promise to metamorphose India's economic and social expansion. Still, the private and government sector alone have not been adequate in creating the expected jobs. Entrepreneurship among women is an essential constituent of the complete solution. It not only improves the economy through job creation, but also provides transformational social and personal outcomes for women.

Women entrepreneurship in India has been rising swiftly in recent years, with more and more women opening their own ventures and taking the entrepreneurial road. The Indian government has created several schemes to encourage and aid women entrepreneurship, comprising access to finance, training, and mentorship.

There are numerous problems faced by women entrepreneurs in India,

1. Lack of access to Capital:

One of the major problems faced by women entrepreneurs in India is lack of access to financial products like loans. Traditional banks and financial institutions are often hesitant to provide loans to women entrepreneurs, who are seen as a higher risk due to their perceived lack of experience and lack of collateral.

2. Cultural barriers:

Women in India face cultural barriers, including societal expectations and stereotypes that women should focus on domestic responsibilities rather than pursuing careers. This can make it tough for women to commence and strengthen their businesses, as they may face opposition from family, friends, and society members.

3. Lack of mentorship and networking opportunities:

Women entrepreneurs in India often lack access to mentorship and networking opportunities, which can be crucial for business growth and success.

4. Work-life balance:

Women entrepreneurs often struggle to balance their work and family responsibilities, which can lead to burnout and decreased productivity.

5. Gender pay gap:

The persistent gender pay gap in India means that women entrepreneurs often have less financial resources to start and grow their businesses, compared to their male counterparts.

6. Limited access to resources and support:

Women entrepreneurs in India often lack access to resources and support, including business incubators, accelerator programs, and other support system

There are four ways to tap into the potential of women and entrepreneurship in India:

- Make it fair for entrepreneurs who have a high impact and create jobs
- Help solo entrepreneurs and small business owners with ambition grow into high-impact entrepreneurs
- Increase the number of women commencing their own ventures
- Develop, support, and grow successful rural agriculture entrepreneurs.

It's time to take action with a unified approach focusing on several crucial themes: a policy framework that is supportive and comprehensive, access to finance that is equal for all, the expansion of mentorship and networking opportunities, training and development tailored to individual needs, and a culture that is open to change. However, the specific actions required for each of these themes may vary for each opportunity area and will often need the involvement of different groups of stakeholders

Despite these challenges, women entrepreneurs in India are making significant progress and are breaking down barriers to create successful businesses and promote gender equality. The Indian government and private sector organizations are taking steps to address these challenges and support women entrepreneurship in India.

Many women have been able to overcome these obstacles and achieve great success in their businesses. Here are a few examples of successful women entrepreneurs in India:

1. Kiran Mazumdar-Shaw:

Kiran Mazumdar-Shaw is the founder and chairman of Biocon, one of India's largest biopharmaceutical companies. She is widely regarded as one of India's most successful women entrepreneurs and is a strong advocate for women's rights and gender equality.

2.Meena Ganesh:

Meena Ganesh is the CEO and co-founder of Portea Medical, one of India's largest healthcare companies. She is a leading advocate for women's entrepreneurship in India

3.Richa Kar:

Richa Kar is the founder and CEO of Zivame, an online lingerie store. She is one of India's most successful women entrepreneurs and has been recognized for her innovative business model and her role in breaking down cultural barriers in the retail sector.

4.Falguni Nayar:

Falguni Nayar is the founder and CEO of Nykaa, one of India's largest beauty and wellness e-commerce companies. She has been recognized for her innovative business model and leadership in the e-commerce sector and Nykaa recently had its IPO as well.

These are just a few examples of the many successful women entrepreneurs in India who are breaking down barriers and creating successful businesses. The success of these women is a testament to the potential and strength of women entrepreneurs in India and serves as an inspiration for other women looking to start their own businesses.

Women empowerment and sustainable development

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"You can tell the condition of a nation by looking at the status of its women"

- **Pt. Jawaharlal Nehru**

Women have an essential role in environmental management and development. Their full participation is crucial to achieve sustainable development goals. Empowerment of women is to be realized through sustainable development, Sustainable development depends on an equitable distribution of resources and it cannot be achieved without gender equality. By providing the same opportunities to women and men, including in decision - making in all kinds of activities, a sustainable path of development can be achieved. Women's empowerment is a key factor for achieving sustainability. Women's are vital contributors, implementers and beneficiaries of - on-going development. Women's contribution to sustainable development must be recognized.

Keywords: Sustainable Development, Gender equality, Development Goals, Women Empowerment

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"हिमाचल की ग्रामीण महिलाओं के सशक्त विकास में स्वयं सहायता समूह का योगदान।"

स्वयं सहायता समूह महिलाओं के सशक्तिकरण में महत्त्वपूर्ण योगदान दे रहे हैं। समूहों में काम करने से उनके आत्म सम्मान, गौरव व आत्मनिर्भता में वृद्धि होती है। समूह एक ऐसा माध्यम है जिसकी सहायता से महिलाओं ने अपनी एक नई पहचान बनाई है। समूह का मुख्य लक्ष्य निर्धनों में नेतृत्व क्षमता का विकास करना व उन्हें समर्थवान बनाना है। स्वयं सहायता समूहों के सर्वेक्षण में यह तथ्य उभरकर सामने आया है कि समूहों को लघु ऋण प्रदान करने से ग्रामीण महिलाओं की भौतिक गतिशीलता, निर्णय के अधिकारों में वृद्धि, विभिन्न स्तरों पर समस्या समाधान करने की क्षमता में वृद्धि के कारण ग्रामीण विकास में उनका योगदान बढ़ रहा है। ग्रामीण विकास के लिए आर्थिक मदद तथा सामाजिक परिवर्तन दोनों ही महत्त्वपूर्ण हैं। कोविड महामारी के दौरान जहाँ लाखों करोड़ों लोगों के रोज़गार चले गए, ऐसे समय में स्वयं सहायता समूह से जूड़ी महिलाओं ने सराहनीय कार्य किए। इन्होंने करोना से लड़ने के लिए मास्क, सेनेटाइज़र वितरण व अन्य ऐसे कार्य में भाग लिया जो कोविड के दौरान कारगर साबित हुए।

WOMEN EMPOWERMENT IN VETERINARY FIELD: A study

Sarita metal
M.Vijaya Kumar

ABSTRACT

This conceptual paper emphasizes on the role played with women entrepreneur during contributing to at most development of economic growth as well as social living.. There is a bi-direction relationship between economic development as well as women empowerment. Women Empowerment itself elaborates that Social Rights, Political Rights, Economic stability, judicial strength and all other rights should be also equal to women. There should be no discrimination between men and woman. In fact animal Husbandry is becoming feminized. About 89% of the agricultural workers, 70% of workforce engaged in livestock sector and 80% of the food a strong desire to do something positive is an inbuilt quality of entrepreneurial women, who is capable of contributing values in both family and social life. Women should now there fundamental and social rights which they get once they born. Empowering women to participate fully in economic life across all sectors is essential to build stronger economies, achieve internationally agreed goals for development and sustainability, and improve the quality of life for women, men, families and communities

Keywords – Women Empowerment, livestock sector, sustainability

WOMEN, POLITICAL LEADERSHIP AND SUBSTANTIVE REPRESENTATION: THE CASE OF INDIA – A STUDY

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The descriptive representation of women in dresser is a necessary but not sufficient condition to achieve women-friendly policy outcomes. Rather, substantive representation of women by women political leaders also requires women's political activism. In this article, I explore the idea that institutionalised separate spaces are important sites of labour women's activism which promote and sustain women's policy leadership and the substantive representation of women. Through an examination of the india's Labour Women's Council and Labour women ministers who have used this space to pursue positions of influence and implement women-friendly policies, it becomes evident that it is not always possible for women leaders to publicly represent a 'feminist' claim, but this does not diminish their attempts at substantive representation. Rather, I suggest that an active and influential feminist reference group is a necessary supplement to women's executive presence. **Key Words:** Women, Political Leadership, Feminist',Labour Women's Council

THE INFLUENCE OF CULTURE ON ETHNIC WOMEN'S USE OF MICROFINANCE FOR EMPOWERMENT IN INDIA

Prof . Rajesh sreevastava and Prof.Keerthi sreevastava Bhopal

The empowerment of women is essential but remains challenging globally. It has been supported by microfinance projects, particularly in recent decades across poor countries. Yet the contribution of microfinance to women's empowerment remains controversial given the complexity of empowerment itself. It is commonly acknowledged that empowerment starts from within individuals themselves. It is also acknowledged that culture plays a significant role in women's empowerment. Despite these acknowledgements, the complexities remain unclear in the context which is the target of this study. This study examines the contribution of microfinance to the empowerment of women in India with a focus on the elements of culture. It is based on a feminist perspective, with a focus on a personal empowerment conceptual framework which enables the core values of empowerment to be examined. The examination is undertaken by employing semi structured interviews and focus groups for data collection with three ethnic groups- participating in the Access to Finance for the Poor (AFP) project. The results show that the approach of the AFP project tends to meet women's practical needs rather than their strategic needs. This is because the project's approach appears to be influenced by the national approach of India in which the provision of opportunities for women is emphasized. It is also because ethnic women's participation in the project is driven by so many practical needs that it makes their strategic needs invisible. The results also revealed that the women's strategic needs are diverse, due to their particular culture and traditions. The results showed several gaps in the empowerment of women in the country. If these gaps are to be closed, there is a need for efforts from many stakeholders, particularly in the education sector, as the gender agenda needs to be integrated into its national curriculum.

Key Words: Culture ,Ethnic Women's , Microfinance , Empowerment .

The Universal Causes and Effects of Women's Empowerment

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Women's empowerment has been thoroughly discussed during the last two decades, yet the research on the components of empowerment on the national level is still lacking. This paper aims to fill that gap by investigating which national causes and effects of women's empowerment that are generally visible across developing countries. Previous studies on meso- and micro level have shown that an increase in women's education, an increase in women's economic independence as well as a strong legal framework is positively associated with women's empowerment. Furthermore, a strengthening of women's reproductive rights, an increase in children's health and a better representation of women in parliament have been identified as effects of women's empowerment. These hypotheses are tested through a structural equation model where women's empowerment is estimated as a latent factor. The final model, which suffers from bad fit, shows that the quality of education is a strong determinant of women's empowerment, and that women's empowerment significantly affects the general level of children's health. It also indicates that the strength of the legal framework is actually negatively correlated with women's empowerment - a finding that calls for further research.

KEYWORDS: Structural Equation Modelling; Empowerment; Development Studies; Gender Studies; Women's Empowerment

The Universal Causes and Effects of Women's Empowerment for Developing Countries

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Women's empowerment has been thoroughly discussed during the last two decades, yet the research on the components of empowerment on the national level is still lacking. This paper aims to fill that gap by investigating which national causes and effects of women's empowerment that are generally visible across developing countries. Previous studies on meso- and micro level have shown that an increase in women's education, an increase in women's economic independence as well as a strong legal framework is positively associated with women's empowerment. Furthermore, a strengthening of women's reproductive rights, an increase in children's health and a better representation of women in parliament have been identified as effects of women's empowerment. These hypotheses are tested through a structural equation model where women's empowerment is estimated as a latent factor. The final model, which suffers from bad fit, shows that the quality of education is a strong determinant of women's empowerment, and that women's empowerment significantly affects the general level of children's health. It also indicates that the strength of the legal framework is actually negatively correlated with women's empowerment - a finding that calls for further research.

KEYWORDS: Structural Equation Modelling; Empowerment; Development Studies; Gender Studies; Women's Empowerment

Empowering Women: Empowering India

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Women around the world are resourceful economic agents, overcoming stubborn, gender-based barriers to advance the health, education, and economic survival of their families. Women empowerment is a developmental and most argumentative issue around the world. Empowerment of women is a universal concept and a multi-dimensional approach and it is not an easy or straightforward process. It's time being process of which awareness, alternatives, resources, voice, agency, and participation of women. Women empowerment depends on the country's cultural, social, economic and political aspects. Half of the populations of india are women and their economic participation has increased significantly. The purpose of this study is to explore the women's' empowerment situation and overall development through equal and active participation in the socioeconomic activities in the perspective of India. This study also identified the factors that facilitate the improvement of women empowerment through reviewing the literature which focuses on the empowerment of women.

Keywords: Women; Empowerment; Participation; Socioeconomic; Population

Analyzing The Role of Education in Women Empowerment in India – A Study

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This research intends to analyze the role of education in empowerment of women in India . Study of this research uses secondary data to examine the role of education in female labor force(FLF) participation. This study applied binary logistic regression, and findings showed a significant relationship between education (having no education, primary education, secondary, higher secondary, and tertiary) and FLF participation. It is significant correlation between women's ownership of land and FLF participation, and between total wage and FLF participation of women. Study used primary data, and the data was collected using an online survey platform. This study also conducted logistic regression and analyze the relationship between six dimensions of women and the employment of women. The findings of study showed a significant relationship between economic empowerment and the employment of women. However, this study did not find any significant correlation between the rest of the five dimensions of women empowerment and employment of women.

Key words: Role of Education, FLF Participation, Women Empowerment.

Sustainable development in the field of water and sanitation

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Abstract –

Sustainable Development Goal is a societal process of development. Clean water and sanitation are one of the sustainable development goals. It focuses on safe drinking water and sanitation. Water system is at stress as exploitation is done to meet human water needs. The health and wellbeing effects of sanitation practices have gained much attention over the years. So, this sustainable development goal focuses on improving water quality, increasing water-use efficiency, reducing pollution and participation of local people in water management. Thus, sustainable development goals act as link between nature and society.

The Luminaries of Chem-science

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Chem-Science deals with matter and natural science. Day-to-day life cannot be imagined without the study of these elements, substances, and molecules. Chem-science is an integral part of science, technology, and industry, which indirectly contributes to the economy of the country and sustainable development. Advancements in human life including nutrition, health, medicinal discoveries, agrochemicals, and ecological and environmental monitoring are revolving around chemicals.

Women play's pivotal roles for several decades. Well, known Noble laureate (1903, 1911) Marie Curie contributed to the discovery of radium, and polonium and finding cancer treatments. Kamal Ranadive is an early Indian cancer researcher. Asima Chatterjee was the first Indian woman to be awarded a Ph.D. degree in India. Darshan Ranganathan was a pioneer work in bio-organic chemistry, particularly supramolecular assemblies, molecular design, and chemical simulations.

Thus women always made a recognized contribution in all fields of science, as listed above. One can say that women with education can educate society and their obsession with excellence makes them luminaries.

Keywords: Chem.-science, supramolecular chemistry, bio-organic chemistry.

Schiff base N,N‟-Bis[2-salicylideneamino]ethane-1,2-diamine (TTS) derived cyclic ionophores S_1, S_2 and S_3:Preparation, characterisation and *in vitro* antibacterial activity

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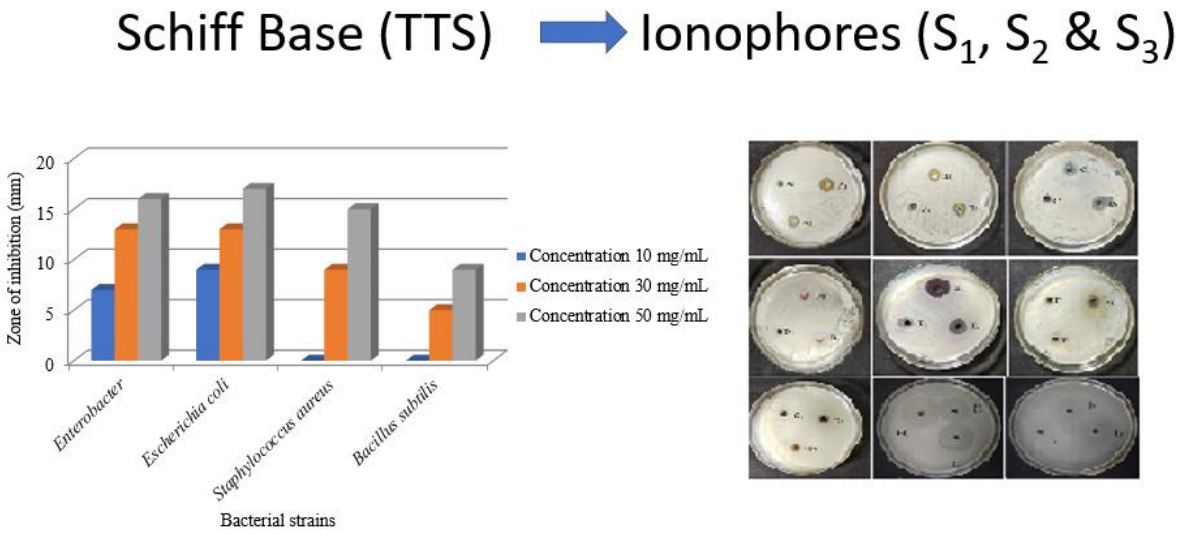
Schiff base N,N‟-Bis[2-salicylideneamino]ethane-1,2-diamine (TTS) derived three cyclic ionophores S_1, S_2 and S_3 have been prepared and characterized by elemental analysis, UV-visible, IR, ^{1}H NMR and mass spectrometry method. In vitro antibacterial activity of these cyclic ionophores against Gram-positive bacterial strains *Staphylococcus aureus*, *Bacillus subtilis* and Gram-negative bacterial strains *Enterobacter*, *Escherichia coli* has revealed that TTS has higher antibacterial activity as compared to that of S_1 and S_2 which may be due to the presence of hydroxyl group and all the tested Gram-positive and Gram-negative bacteria are resistive towards ligand S_3 which indicates that S_3 does not possess any antibacterial activity. It was found that antibacterial activity of TTS, S_1 and S_2 against microorganisms is very low at low concentration which increases with increase in concentration.

Keywords: Schiff base (TTS), Ionophores, *In vitro* antibacterial activity

Graphical abstract –



Fluorosis: Fluoride contamination in drinking water

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Water contamination is one of the major effect on public health. Fluoride contamination in water is a main difficult across the world, with health dangers such as dental and skeletal fluorosis.**Fluorosis** is a crippling disease, it is a public health problem caused by excess intake of fluoride especially through drinking water. Constant efforts by the government department have resulted in increased awareness about the problem. In addition to promoting treatment of fluoride at source, government is now shifting its attention to surface water sources to supply safe drinking water. This paper is an attempt to look at the problem of fluorosis i.e. fluoride in drinking water as regards its extent, effects and various practices at the level of the government department and community to solve the problem of fluoride contamination.

Key words: Fluoride, Fluorosis, Water

Sustainable development and Climate change

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Sustainable development and climate change are two closely related issues faced by the world today. Climate change, caused by the emission of greenhouse gases, is having a profound impact on the planet, affecting ecosystems, economies and communities. At the same time, unsustainable development practices are exacerbating the impacts of climate change and hindering the ability of future generations to meet their own needs. To address these challenges, it is essential to take a sustainable development approach that considers both economic and environmental factors. This involves reducing greenhouse gas emissions, shifting towards renewable energy sources, promoting energy efficiency and sustainable land use practices, and ensuring equitable access to resources. In conclusion, sustainable development and action on climate change are crucial for ensuring a safe, equitable and prosperous future for all. By implementing an integrated approach to these issues, we can reduce greenhouse gas emissions, protect the planet's ecosystems and resources, and create new opportunities for economic growth and development.

Keywords - Sustainable development, climate change, greenhouse gases, renewable energy, economic growth etc.

Sustainable Development Objectives and Cleaner Production in The Textile Industry

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An essential component of daily living for humans is textiles. Environmentalists have been urging businesses to include sustainability in every aspect of their operations. When compared to other industries, the textile industry is seen as a major contributor to environmental pollution and is responsible for several ecological problems (pollution of water bodies, waste generation, and air pollution), which harm the environment and pose serious health risks. Conceptually Cleaner Production aims to increase efficiency and reduce risks to people and the environment by integrating the ongoing use of deterrent environmental techniques into processes, goods, and services. This study relates to savings and Sustainable Development Goals. Different bio-adsorbents such as live or dead microorganisms and their components, seaweed, vegetables, industrial waste, agricultural waste, and natural waste, are used to remove different wastewater effluents, such as colors and other pigments which used in textile industries. This study offers a framework for sustainable development for a more environmentally friendly textile production system in this setting (in the wet-processing category). The production process can be improved to reduce setup costs and increase process reliability; the advantages of these to enhance environmental protection are then examined through comparative analysis. This led to the conclusion that the adoption of Cleaner Production techniques in the textile industry through technological innovation made it feasible to highlight the economic and environmental benefits associated with those SDGs 9, 12, and 15.

Sustainable development goals and Drug relation

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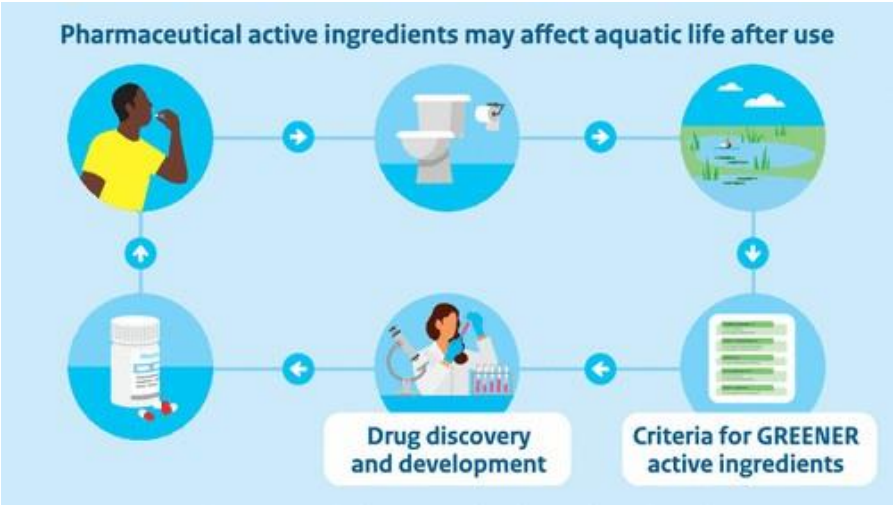
A set of 17 global objectives known as the Sustainable Development Goals (SDGs) was created as a "blueprint to achieve a brighter and more sustainable future for all." We contend that while only being mentioned in one of the seventeen goals (target 3), drugs in general and rising drug pollution in particular have an impact on the SDGs in subtler, less obvious ways. Drug pollution is a new issue that has not yet received enough attention. Here, we describe and talk about how drug pollution can have an impact on the SDGs and possibly jeopardise their attainment. Although necessary to human health, medications can potentially have an adverse effect on the terrestrial and aquatic environment when used by patients and released via patient excreta into wastewater. We emphasise the necessity for a GREENER strategy to identify and satisfy crucial environmental standards, which will assist lessen the environmental impact of drug residues.

There must be no PBT (persistent, bio-accumulative, and toxic) compounds, effect reduction by avoiding non target effects or undesired moieties, exposure reduction by lower emissions, and risk mitigation. Although all of these requirements must be met for medicines to be used in the treatment of disease, the health of the patient comes first.We address whether it is feasible to incorporate these standards for green by design active pharmaceutical ingredients into the process of discovering and developing new drugs, as well as what instruments or assays are required to do so. Discussions regarding potential advances in drug discovery and development can be accelerated by using the integrated GREENER strategy.

Sustainable development goals and Drug relation



Molecular Tailoring of Receptors and Transport of Amino Acids through liquid membranes

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The molecular recognition phenomenon of cucurbit[6]urill (R_1) and its derivatives perhydroxy cucurbit[6]uril (R_2), diphenylcucurbit[6]uril (R_3) and hemicucurbit[6]uril (R_4) towards aliphatic amino acids was studied. In this respect, the use of these macrocyclic receptors having variations in structure and shape for transport of amino acids using liquid membrane system. These receptors interact with amino acids by ion- dipole interaction. The observed sequence in SLM experiments for transport efficiency of different receptors for amino acids is serine> arginine> lysine> glycine by R_1, arginine≈ serine> glycine> lysine by R_2, serine> glycine> lysine>arginine by R_3 and glycine> arginine> lysine> serine by R_4. In BLM experiments the sequence of transport efficiency observed for amino acids using Receptor R_4 is Glycine> Lysine> Serine≈ arginine. Receptor R_2 containing hydroxyl group at the outer surface of cucurbituril, increases ion dipole interaction between receptor and substrate and receptor R_4 having flexible cavity, emphasized better transport efficiency. Various parameters such as pH, time, concentration of amino acids as well as concentration of receptors were studied for transport of amino acids.

Keywords: Cucurbit [6] uril, Molecular recognition, Amino acids, Supported liquid membrane (SLM) and Bulk liquid membrane (BLM) system, Synthetic membrane support.

Women as Entrepreneurs

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Abstract: The purpose of this presentation was to convey a message to the upcoming women entrepreneurs that sky is not the limit, age is just a number . The presentation involved life stories of four inspiring women entrepreneurs of India: RUMA DEVI, FALGUNI NAYAR, VINEETA SINGH, GHAZAL ALAGH . They teach us that when you have a strong will and strong determination you can conquer anything. A proper guidance and education can make women do an impossible task .Women is a strong pillar of the society .If a women move forward a family moves, a society moves, a village moves. The endeavor of a women cascade the effect in the society .The government of india has initiated to help women entrepreneurs to smash the glass ceiling .Women not only helps in development of the society but also help in sustainable development.

Molecular interaction study of Binary Solutions of n-amyl acetate(1) and isopropanol(2) at Different Temperatures

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Abstract: Esters are alkyl derivatives of carboxylic acid having functional group alkyl alkanoate formed by reaction of carboxylic acids and alcohol These are volatile organic compounds having specific odour. Esters can be obtained from natural compounds i.e. natural esters and synthetic esters can be prepared in laboratory for specific application. Alcohol is chief component of laboratory as well as industrial applications. In last decade study of ester in non-aqueous solutions were concerned due to industrial processes. The study includes the calculation of derived functions such as excess molar volume and deviation in viscosity which is useful to understand the nature and type of molecular interaction between the components. The work is therefore aimed to evaluate the excess parameters.

An investigation carried out from the measurement of density and viscosity of binary solutions of n- amyl acetate and isopropanol over the mole fraction range 0.1 to 1.0 at different temperatures (305,310,315 and 320 K). Excess molar volume and deviation in viscosity were calculated using densities and viscosities values. Positive values of excess molar volume and negative values of deviation in viscosity are obtained. To validate the result, excess quantitiessuch as excess molar volume and deviation in viscosities are fitted in Redlich-Kister polynomial equation. Experimental viscosities are employed in various semi-empirical models to validate correctness of results. Experimental and calculated quantities are interpreted in terms of possible molecular interaction in binary solution.

Key words: Binary solution, Density, Viscosity, Molecular interaction,Redlich-Kister equation.

Abstract

Rural Women Empowerment: New buzzword to be self dependent in Himachal Pradesh: -

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Change is the Law of Nature. Women in Himachal Pradesh are shifting from controlled life style to self dependent life style and starting journey of economically dependence to Independence. The govt's initiative towards self – reliant of women specifically in rural Himachal Pradesh is providing new direction for incremental income. The women have become aware about their rights and situation and entering in different field of business and contributing in the improvement of socio economic condition. Govt. of Himachal Pradesh has given appropriate importance for rural women empowerment in the state and several schemes has been introduced for women entrepreneurs. This paper highlights the various initiative taken by govt. of Himachal Pradesh and its implementation challenges phase by women entrepreneurs.

Keywords: - Women entrepreneurs, Rural women government of Himachal Pradesh, challenges.

Role of Green Chemistry In Sustainable Development

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Chemistry is really very useful to us because its applications are used worldwide for several purposes. Chemical derivatives should be avoided as far as possible in any type of application which often prove to be harmful. The chemistry which design or redesign of products and manufacturing processes to eliminate their impact on human health and environment, is also called “Green Chemistry”. Green chemistry is environmentally benign protocols which lies at the heart of the industrial ecology. The term Green Chemistry is universally accepted to describe the movement towards more environmentally safer chemical processes. It is widely used in the field of sustainable development. Sustainable development is an approach to the economic development of a country without compromising with the quality of the environment. Its aims not only for safer and less hazardous products consequences to the environment but also includes big issues which can promote in the end of sustainable development. The goal of green chemistry is the redesign of products and manufacturing processes to eliminate their impact on human health and environment.

This paper is present a little description on the principal of green chemistry, used in sustainable development. Although many of the principles of green chemistry are not new, the extent to which they are being applied have resulted in an intensified attention on this topic among the industrial, academic and common communities.

Keywords: Green chemistry, Designing safer chemicals and products, Sustainable development, High efficiency.

Effect of Physical Conditioning on Cardio- Respiratory Endurance at Different Surface

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The purpose of the study was to determine the effect of Physical Conditioning at Different surface on Cardio respiratory endurance**.** For this purpose 24 runner from Ratlam district ,who were preparing for army and police recruitment age ranging between (16 to 19) were purposively selected. Subjects were divided into two experimental groups. Each group consisted of 12 Subjects. All the selected Subjects from both the group, participated in 10 weeks of training program at their respective place. To assess the cardio respiratory endurance, VO2 Max was tested by Cooper 12 minute run and walk test. ANCOVA was employed as statistical technique and found significant at 0.05 levels. The result of the study indicated that the Physical Conditioning program is having a positive influence on Both the experimental groups.

Keywords –Cardio-Respiratory Endurance, VO_2 Max, Physical Conditioning

Impact of Domestic Bio Medical Waste on Chloride and Nitrate of Soil

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The amount of garbage containing medical waste produced by houses is significantly greater than that produced by hospitals and medical establishments. According to a recent study, the amount of garbage generated in the household sector is over four times that generated by the city's hospitals. Anyone residing in the residence, as well as guests and home healthcare personnel, is at risk from medical waste. If the material is dumped in the usual trash, the trash collectors may also be at risk. Sanitation employees are frequently stabbed by needles while on the job. Before dumping out unwanted medications, some waste management studies recommend combining them with coffee grinds or cat litter. Humans and animal pests will find the medications less appealing as a result (mixing eliminates the odor of the drugs). Then, before throwing it away, seal the mixture in a sealed container. Using 2 separate soils, laboratory studies were designed to simulate the field surrounding an unlined MSW landfill. At a radial distance of 0.2 m and a depth of 0.3 m, the maximum change in chemical concentration and engineering property was found on soil samples.

Keywords- Domestic biomedical waste, Waste management, Soil contamination, Pollutant transport.

Women Empowerment and Sustainable Development

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Women empowerment means to educated, self dependent,self-motivated and decision- making woman that achieve more power and control over their own life. Women empowerment give new sphere of economic,socio-cultural and political .

The developmentwhich meets the requirement of the present without compromising the ability of future generation to meet their own needs is called sustainable development and it creat a society which is based on freedom ,democracy and respect for fundamental rights,fostering equality of opportunity in generation.

Women are demanding that their voice be heard. The perception ,interest ,need and priorities of women must be taken into consideration for development of nation.

Key –Words: Women –empowerment, fundamental right,democracy,opportunity and voice

Redox Switched Ionophores Assisted Transport of Main Group Metal Ions Through Supported Liquid Membrane

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Extended abstract

Carrier mediated transport through supported liquid membranes is one of the important applications of supramolecular chemistry. In the late 1960s Pedersen, Lehn, Cram Vogtle *et al* published [1-3] the synthesis of macrocyclic molecules (crown ether, cryptand, spherands, podands) that are able to selectively bind ions or small organic molecules via noncovalent interaction. Lariat ethers are combination of anthraquinone moiety with different podands; these were developed by G.W. Gokel [4]. Lariat ethers are macrocycic polyether compounds having one or more donor group bearing side arms. In the systems prepared to date, side arms are attached to carbon (carbon pivot lariat ethers). When more than one side arm is attached the number is designated using standard prefixes and the Latin word *bracchium* which means arm. A two armed compound is thus a bibracchial lariat ether and the name is abbreviated BiBLE.

A novel series of redox switched anthraquinone derived single armed [5], bridged and double armed lariat ethers (**A_1**) 1-(1-anthraquinonyloxy) 3, 6, 9-trioxanonane-9-methane (**A_2**), 1-(1-anthraquinonyloxy), 3, 6 -dioxahexane-6-methane, **(A_3)** 1, 11-(dianthraquinonyloxy) 3, 6, 9 trioxaundecane, **(A_4)** 1, 8-(dianthraquinonyloxy) 3, 6 dioxaoctane,(**A_5**) 1, 5 bis (2-(2-(2-(2-hydroxyethoxy) ethoxy) ethoxy) ethoxy) anthracene-9-10 dione ,(**A_6**) 1, 5 bis (2-(2-(2-hydroxyethoxy) ethoxy) ethoxy) anthracene-9-10 dione , (**A_7**)1, 5 bis (2-(2-hydroxyethoxy) ethoxy) anthracene-9-10 dione (**A_8**)1, 5 bis (2-(2-(2-butoxy) ethoxy) ethoxy) anthracene-9-10 dione (scheme 1) have been synthesized by reacting anthraquinone moiety with different podands and characterized by m.p., TLC and spectral analysis. These redox switched lariat ethers were used in carrier-facilitated transport of main group metal ions across supported liquid membrane (SLM). These membranes were impregnated with ionophore (10^{-3} *M*) dipped at overnight and used as support.

The results of SLM studies with ionophores (A_1-A_8) are listed in Table1 & 2. The amount of cation (Li^+, Na^+, K^+, Ca^{2+}, Mg^{2+}) transported by the ionophores (A_1-A_8) at varying ionophore concentration range ($1x10^{-2}M$ to $1x10^{-5}M$) using MX salts (M= Li^+, Na^+, K^+, Ca^{2+}, Mg^{2+}; X= Pic^-, Dnp^-, Onp^-) at constant concentration ($1x10^{-2}M$) was studied. The optimum ionophore concentration for transport is found to be $1x10^{-3}M$. The trend observed is $Li^+ \approx Na^+ > K^+$. Ionophore A_1 having triethylene glycol side arm, shows strong binding affinity with small size of cation, so it forms stable complexes with Li^+ and Na^+. Therefore it shows less transport for K^+, Na^+ ion and no transport for Ca^{2+}, Mg^{2+}. Ionophore A_2 having diethylene glycol chain shows tremendous increased carrier ability as compared to A_1 and the trend for cation transport as $Li^+ > Na^+$.

Using cellulose nitrate membrane as support, ionophore A_3-A_6 shows carrier ability for all the cations. Ionophore A_3 & A_5 showing best result for K^+ ion due to long glycol chain moiety attached to the anthraquinone end group. Li^+, Na^+ & K^+ have ability to be transported by all the ionophores (A_1-A_8). Ca^{2+} and Mg^{2+} are not at all transported by ionophore A_7 & A_8, due to shorter glycol side arm. On the basis of selectivity ratio ionophore A_3 and A_6 shows higher transport for K^+ and Ca^{2+}. In SLM, ionophores do not move freely, they are fixed on the membrane and due to this their flexibility and mobility is checked. Hence sequence is different as observed in BLM [6] system. Electron microscope studies are in under process.

Effect of various parameters such as variation in concentration of metal ion as well as ionophore, effect of chain length, end group of ionophore and membrane porosity has been studied. Ionophore A_3 and A_5 are selective for K^+ and Ca^{2+} respectively in cellulose nitrate membrane. Cellulose nitrate membrane is a better support as compared to onion membrane. This selectivity can be used in fabrication of sensors and redox switchable devices.

Table 1

Amount of metal cation transported with redox switched lariat ethers (A_1-A_8) through SLM by using cellulose nitrate and onion membrane as a support.

[Metal ion]= $1.0 \times 10^{-2} M$;[Ionophore] = $1.0 \times 10^{-3} M$

Ionophore	**Amount of Metal cation transported in (%)**									
	Cellulose nitrate membrane					Onion membrane				
	Li^+	**Na^+**	**K^+**	**Ca^{2+}**	**Mg^{2+}**	**Li^+**	**Na^+**	**K^+**	**Ca^{2+}**	**Mg^{2+}**
A_1	21	31	6.4	-	-	28	31	-	-	-
A_2	83	84	4.1	-	-	53	76	2.0	-	-
A_3	25	78	**93**	12.5	12	21	61	5.0	54	13
A_4	28	28	33	59	10	-	31	29	42	10
A_5	31	60	20	70	-	25	53	26	**74**	25
A_6	28	53	83	19	-	15	4.0	21	62	18
A_7	24	23	8.1	-	-	11.6	14	5.8	-	-
A_8	60	84	5.8	24	-	29	23	2.0	-	-

Table 2 Selectivity ratio of metal ion transported with redox switched lariat ethers through SLM using cellulose nitrate and onion membrane as support.

Ionophores	Selectivity ratio					
	Li^+\ Na^+		K^+ \Ca^{2+}		Ca^{2+}\Mg^{2+}	
	Cellulose nitrate	Onion	Cellulose nitrate	Onion	Cellulose nitrate	Onion
A_1	1.3	1.7	3.1	-	-	-
A_2	1.85	1.3	2.0	1.0	-	-
A_3	0.6	0.6	**18.0**	0.2	2.0	8.3
A_4	1.8	-	1.35	1.6	11.8	**8.5**
A_5	0.98	0.8	0.71	0.8	**14**	5.9
A_6	1.0	6.9	10.65	0.8	3.8	6.9

A_7	1.97	1.5	3.9	0.8	-	-
A_8	1.3	2.3	0.5	3.8	4.8	-

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महिला सशक्तिकरण

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लैंगिक असमानता भारत में मुख्य सामाजिक मुद्दा है जिसमें महिलाएँ पुरुषवादी प्रभुत्व देश में पिछड़ती जा रही है। पुरुष और महिला को बराबरी पर लाने के लिये महिला सशक्तिकरण में तेजी लाने की जरुरत है। सभी क्षेत्रों में महिलाओं का उत्थान राष्ट्र की प्राथमिकता में शामिल होना चाहिये। महिला और पुरुष के बीच की असमानता कई समस्याओं को जन्म देती है जो राष्ट्र के विकास में बड़ी बाधा के रुप में सामने आ सकती है। ये महिलाओं का जन्मसिद्ध अधिकार है कि उन्हें समाज में पुरुषों के बराबर महत्व मिले। वास्तव में सशक्तिकरण को लाने के लिये महिलाओं को अपने अधिकारों से अवगत होना चाहिये। न केवल घरेलू और पारिवारिक जिम्मेदारियों बल्कि महिलाओं को हर क्षेत्रों में सक्रिय और सकारात्मक भूमिका निभानी चाहिये। उन्हें अपने आस-पास और देश में होने वाली घटनाओं को भी जानना चाहिये।

महिला सशक्तिकरण में ये ताकत है कि वो समाज और देश में बहुत कुछ बदल सकें। वो समाज में किसी समस्या को पुरुषों से बेहतर ढ़ंग से निपट सकती है। वो देश और परिवार के लिये अधिक जनसंख्या के नुकसान को अच्छी तरह से समझ सकती है। अच्छे पारिवारिक योजना से वो देश और परिवार की आर्थिक स्थिति का प्रबंधन करने में पूरी तरह से सक्षम है। पुरुषों की अपेक्षा महिलाएँ किसी भी प्रभावकारी हिंसा को संभालने में सक्षम है चाहे वो पारिवारिक हो या I

International year of sustainable development

Aditi Joshi

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The motive of this presentation is to create awareness about sustainable development and the measures by which we can achieve it. It is about recognising the valuable contribution of Women in achieving the 17 sustainable development goals set up by the United Nations. The presentation highlights the gender disparity in the representation of women at decision making positions in developing and under developed countries.It also delves on important issues related to women such as poverty, usage of natural resources and water scarcity and quality and the knowledge that Rural women possess about nature and environment that can be implemented under various schemes and policies for the sustainable development of their areas. The presentation's conclusion is to imply the expertise and insight of women so that we can achieve justice and inclusion, economics that works for all, and sustainability of our shared environment now and for future generations.

for Sustainable Development in Organic Synthesis

Ashutosh Sharma

This paper comprises green initiatives to promote green chemistry as a substitute for organic synthesis using current techniques and offers new tools, knowledge, and organic synthesis design in a way that will support the social economy to safeguard the environment and public health. Green chemistry alternatives are crucial in protecting the environment from the negative effects of various chemicals and solvents used in synthesis in order to reduce the environmental risks associated with organic synthesis.