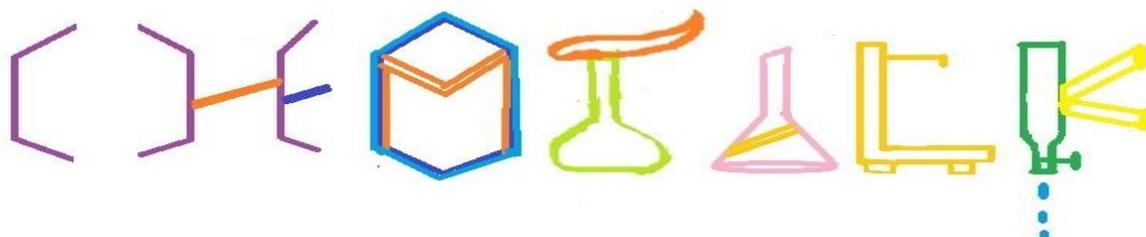


CHEMTALK 2022

A.P.C.Mahalaxmi College For Women

Thoothukudi.

Department of Chemistry



A Students' Magazine

Edition I, Volume VIII

10/04/2022



This edition brings an article with chem fact. Besides this, Chem Innovations and chemystery also discussed.

From Editor's Desk

Dear Readers,

As our Government has strongly enforced plastic ban, we have also tried to take a step towards environmental protection by publishing a novel method of plastic degradation. To give a new perspective of chemistry to readers, we have introduced chemfiction, i.e. a fictional story on chemistry. We assure that this edition will satisfy the expectation of the readers.

- Editor

Editorial

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DEPARTMENTAL ACTIVITIES

Department of Chemistry, A. P.C. Mahalaxmi College for Women, Thoothukudi, under the aegis of the Institution's Internal Quality Assurance Cell (IQAC) Thoothukudi organized a Faculty Development Programme on the topic "Innovative E-Content Preparation using Thinglink" on 27.02.2022.

PG & Research Department of Chemistry, District Legal Services Authority, Thoothukudi and National Service Scheme (Unit No. 47 & 57) of A.P.C. Mahalaxmi College for Women, Thoothukudi, jointly organized a Webinar on the topic "Empowerment and Protection of Girl Child" on 24.01.2022 from 3.00 p.m to 4.00 p.m through Google Meet. The Mrs. M.Breetha, M.L., Secretary/ Senior Civil Judge, District Legal Services Authority, Thoothukudi, gave felicitation and discussed the theme of the webinar. The resource person Mrs. S.Sornalatha, M.A., M.L., Panel Lawyer, District Legal Services Authority, Thoothukudi, delivered a lecture on Empowerment and Protection of Girl Child.

In observance of "National Voters Day", PG and Research Department of Chemistry of A.P.C. Mahalaxmi College for Women, Thoothukudi, took "Voters' Pledge on 25.01.2022. On behalf of the Chemistry association, National Science Day was celebrated on 28.02.2022. As part of the celebrations, various competitions like Essay Writing, Poster making, Grain Carpet, Powerpoint presentation and Quiz were conducted from 25.02.2022 and 28.02.2022.

S.No	Name of the Competition	Topic	Date
1.	Essay Writing	Is Science Boon or Bane	25.02.2022
2.	Poster Making	Science Today	25.02.2022
3.	Quiz	Science and Current Affairs	25.02.2022
4.	Power Point Presentation	Innovations Science and Technology	28.02.2022
5.	Grain Carpet	Nature	28.02.2022

150 students from various discipline participated in the events enthusiastically. Dr. K. Palani, Head & Associate Professor of Mathematics and Dr. V. Shymala Susan, Head & Assistant Professor of Computer Science judged and the results are as follows.

The winners are

1. Essay Writing: (i) B. Jeyasri, I Maths (S.F) – I Prize

(ii) A. Chandrakala – II M.Sc Maths – II Prize

2. Poster Making: (i) S. Kamali- II Maths (S.F)- I Prize

(ii) A. Jeyashree – I Chemistry – II Prize

3. Powerpoint Presentation: (i) M. Harini Santhanamari – III B.Com (R) – I Prize

(ii) R. SuprajaChellam – I. B.A English – II Prize

4. Grain Carpet – (i) R. Asha Devi – I B.Sc Zoology – I Prize

(ii) R. Narmatha- III Chemistry – II Prize

5. Quiz – (i) A. Evangeline Thangam – II Chemistry & M. Syed Subahani – III B.Sc Chemistry – I Prize

(ii) S. Saranya – II M.Sc Maths & M. Janai – II Prize

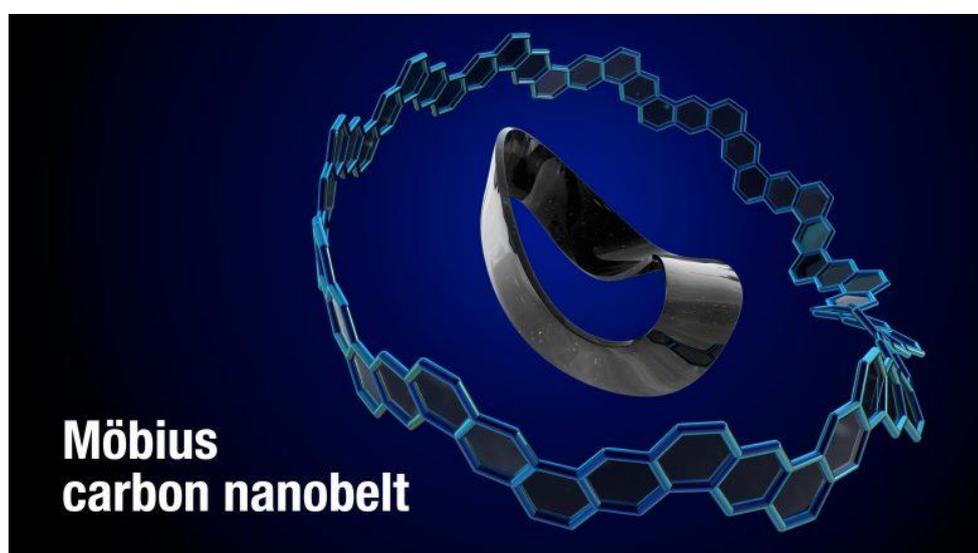
Health Awareness programme was conducted at 2.00 p.m on 01.03.2022. Dr. Manjula DGO, Red Chief Civil Surgeon Government Medical College Thoothukudi and Dr. Manikandan Dhanushkodi MD (General Medicine) DM (Medial Oncology), DNB (Medical Oncology).Consultant Medical Oncologist, Thenmani Hospital,Thoothukudi act as chief guest.

Department of Chemistry won runner cup in Finearts competition 2021-2022.

P. Deepa, III B.Sc Chemistry won I prize in Kabbadi tournament organized by kabadi association, shunmugapuram thoothukudi and won II prize in Vadakkanallur kabbadi club state level competition. On behalf of maths, physics, zoology, computerscience and chemistry association jointly organizesda international conference on Advances In Science And Engineering - 24th & 25th March 2022. Chemistry association served community service work at Sri Pathrakaliamman School, Mappillaiurani on 28.04.2022 to create awareness about covid and plastic by our II B. Sc Chemistry students.

CHEM INNOVATION

-V. Ranjitha Selvamary(IIIB. Sc. Chemistry)



A new synthesis method creates a belt-shaped molecular nanocarbon with a twisted Möbius band topology, i.e., a Möbius carbon nanobelt. Credit: Issey Takahashi

Scientists have constructed the first belt-shaped molecular nanocarbon with a twisted Möbius band topology—a Möbius carbon nanobelt—that paves the way for the development of nanocarbon materials with complex topological structures.

“The Möbius carbon nanobelt was a dream molecule in the scientific community after we reported the first chemical synthesis of a carbon nanobelt—an ultra-short carbon nanotube—in 2017. Just like belts we use every day, we imagined what would happen to our ‘molecular belt’ when tightened with a twist. It’s another amazingly beautiful molecule,” says Kenichiro Itami, leader of the research group. Such a twisted Möbius carbon nanobelt should manifest quite different properties and molecular motions compared to those with a normal belt topology.

CHEM FACTS

D. Vijayalakshmi (II B. Sc., Chemistry)

- The only letter not appearing on the periodic table is J.
- The only two non-silvery metals are gold and copper
- There is about 0.4 pound or 200 grams of salt (NaCl) in the average adult human body
- Helium balloons float because helium is lighter than air.
- Mars is red because its surface contains a lot of iron oxide or rust.
- The only solid elements that assume liquid form at room temperature are bromine and mercury. However, you can melt gallium by holding a lump in the warmth of your hand
- The human body contains enough carbon to provide "lead" (which is really graphite) for 9,000 pencils
- Dry Ice is the solid form of carbon dioxide (CO₂).

EAGLE VIEW

V. Ranjitha Selvamari(III B. Sc., Chemistry)

Nanochemistry:A Chemical Approach to Nanomaterials.

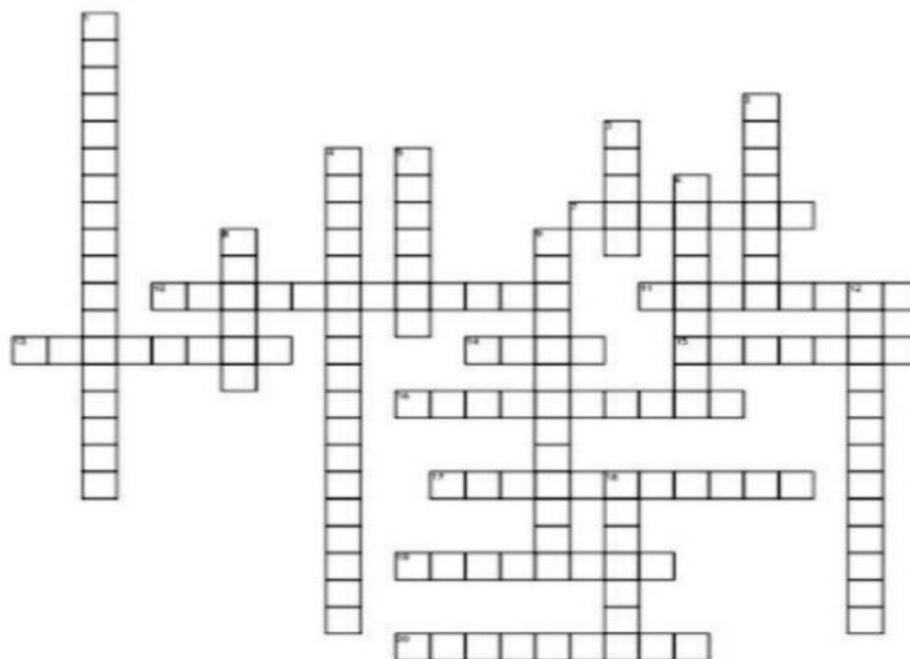
Geoffrey A. Ozin and André C. Arsenault

This book summarizes methodologies of producing single-crystalline materials suitable for different applications, as indicated in the book title, and according to their properties, particularly electronic and optical bandgap properties. The book is divided into chapters focusing on different types of single-element crystals as well as some compound materials, such as II-IV materials (ZnS, ZnSe, ZnO, ZnTe) or ternary semiconductor compounds, e.g., CdZnTe in Chapter 8. The publication first deals with technologies for producing silicon and GaAs crystals, which are used mostly in consumer electronics and fast electronic devices for communication electronics. The book also gives some information on very rare technologies, for instance, growing crystals in the “absence” of the gravitational field. Logically, Chapter 16, “Photovoltaic Silicon Crystal Growth”, could be combined with Chapter 1, “Silicon”, although the target applications differ (micro/macroelectronics). Although Chapter 3 is different from the others (dealing with modeling of crystal growth), it does not disturb the text flow because each chapter refers to a particular type of material(s) and is self-contained. The preface, written by the editor, gives a good brief review of the applications of the crystalline materials that are the topics of this book. The chapters on different crystal materials also contain information on their important properties, typical analytical data, incorporated impurities, and phase diagrams, which are essential for understanding technological processes and further development of technology. Nearly all chapters are duly referenced to original literature sources.

The book satisfies most of the aspects justifying the publication. First of all, a book on the presented topic is needed. It can serve as a guide to undergraduate and research students, technological engineers, researchers, and some lecturers.

CHEMYSTERY

- D. Vijayalakshmi (II B. Sc. Chemistry)



Across

- 7. Chemical salt
- 10. The number of a element on top of it
- 11. Chemical gas and last group
- 13. Has a negative charge
- 14. Everything is made of it
- 15. Has no charge
- 16. The Mass of a atom

Down

- 17. First group
- 19. Pure Substance cannot be broken down
- 20. Russian scientist who predicted about periodic table
- 1. A property that uses chemicals
- 2. Bad conductor
- 3. Good conductor

- 4. You can touch it and its a property
- 5. Main brain in atom
- 6. Has two or more elements
- 8. Has a positive charge
- 9. Holds all elements
- 12. It belongs in the atom
- 18. A form of a element same protons but different neutrons

- 1) Please send your answers to chemtalk123@gmail.com. Cash award Rs.100 will be given to puzzle solver. The winner of the previous Chemystery puzzle is S. Kalpana Devi (II B.Sc.). The Correct answers are 1) NEUTRALISATION 2) PRECIPITATE 3) ENDOTHERMIC 4)

DOOTHERMIC 5) PRODUCT 6) TEMPERATURE 7) ACTIVATION 8) CATALYST 9) EXOTHERMIC
10) OXIDATION 11) INHIBITOR 12) BOND 13) REACTANT 14) DECOMPOSITION.