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November  
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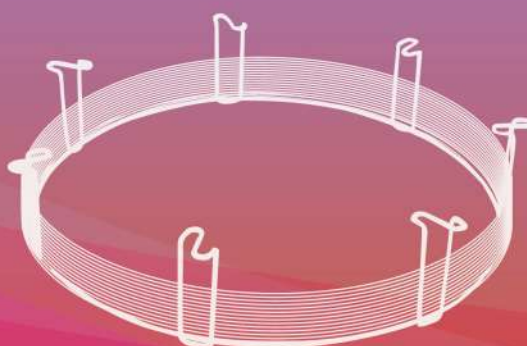
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## Message from the President



### IKM Moving Forward

We are pleased to share with members that we are moving full steam ahead. We believe that the COVID-19 endemic has become part of our daily life and things are back to normal.

We have the following events planned for the 2022/2023 session.

The next major event will be **Kuiz Kimia Kebangsaan Malaysia**, or **K<sub>3</sub>M, 2022** which will take place on 29th September 2022 in all schools taking part in the Quiz. To date, we have 35,877 students from 942 schools taking part. This year we are also celebrating 21 years of K<sub>3</sub>M from 2002 – 2022 with the theme – ***Celebrating 21 years of excellence in chemistry education in Malaysia***. As part of the Celebrations, we are having a K<sub>3</sub>M 21st

Anniversary Grand Dinner on 30th September 2022 where we will be presenting Certificate of Appreciation and plaques to members of the K<sub>3</sub>M Technical Committee, some of whom had served since K<sub>3</sub>M's inception in 2002.

Another significant event is the **International Congress on Pure & Applied Chemistry (ICPAC) 2022** which will be held from 22 – 27th November 2022 at the Magellan Sutera Resort, Kota Kinabalu, Sabah. **ICPAC KK 2022** will be a hybrid conference and we have very good response from the Japanese participants. So far more than 300 Japanese scientists have indicated they will participate and another 100 – 150 will be coming. This will be the biggest ICPAC that we will organise since 2016.

After ICPAC KK 2022, we shall have **Malam Kimia 2022** on 2nd December 2022 at the One World Hotel, Petaling Jaya. This will be a grand social event for IKM where we present various IKM awards to our members and students, and also organisations.

We have just submitted the **Programme Standards for Chemistry** to the Malaysian Qualification Agency (MQA) and awaiting their response before being implemented as the Standard Chemistry Curriculum for Chemistry Programmes in universities in Malaysia.

For 2023, we shall have our **56th Annual General Meeting (56AGM)** at the end of March 2023 and the **16th Asian Conference on Analytical Sciences (ASIANALYSIS XVI)** in October 2023 together with **LabAsia 2023** in Kuala Lumpur Convention Centre (KLCC). We are moving full steam ahead for 2022/2023.

With best wishes for a peaceful and joyous 2022/2023.

**Datuk ChM Dr Soon Ting Kueh**  
President, Institut Kimia Malaysia  
Date: 9th September 2022

# Minggu Sains Negara Keluarga Malaysia 2022

Minggu Sains Negara Keluarga Malaysia 2022 is one of MOSTI's initiatives to cultivate interest in science. The objective of this program is to provide a platform to invigorate and cultivate Science, Technology and Innovation (STI) at various levels and further increase awareness among people on the importance of STI in generating economic growth and upgrading Malaysia to be a developed country. This program runs from April to October, with focused topics each month. "Kimia & Bioteknologi" was held in the month of May. In line with the objective, IKM has organized a program themed "Chemistry in Everyday Life" on 12<sup>th</sup> May 2022. We conducted online webinars, virtual exhibition and laboratory virtual tour. Speakers were from Universiti Malaysia Pahang (UMP), University Teknologi MARA

Shah Alam (UiTM), Department of Chemistry Malaysia (Headquarter and Penang branch), FGV Research Laboratory and SMK King Edward VII Taiping. The program was conducted via live streaming on MOSTI's Facebook and the recording can be retrieved from MSN official website and MOSTI official website - <https://www.facebook.com/officialmosti/videos/526710498933806/>

Report by ChM Li Hui Ling  
Coordinator for MSN 2022



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CHEMISTRY & BIOTECHNOLOGY	AGENDA	MAY
OPENING REMARKS BY DATUK DR. SOON TING KUEH		10.00 AM
WEBINAR: INSIDE A BATTERY BY PROFESSOR DR. CHONG KWOK FENG		10.15 AM
WEBINAR: METROLOGY FOR BETTER QUALITY OF LIFE BY DR. SITI NUR NAZATHUL SHIMA BT HASHIM		10.45 AM
WEBINAR: THE SCIENCE OF CHOCOLATE BY DR. ADI BIN MD SIKIN		11.15 AM
VIRTUAL EXHIBITION: MYCOTOXIN LABORATORY BY DR. NOR SHIFA SHUIB		11.45 AM
LABORATORY VIRTUAL TOUR: FGV AGRI SERVICES SDN BHD, PUSAT PENELITIAN PERTANIAN BY MOHD YUSRI SANUSI		02.30 PM
WEBINAR: WOW...CHEMISTRY BY CIKGU SUZIYANA BINTI HASSIM		03.00 PM





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## IKM President, Datuk ChM Dr Soon Ting Kueh, presented with BIM Lifetime Achievement Award



On the 27th day of July 2022 at the BIM 50th Anniversary Dinner, IKM President, Datuk ChM Dr Soon Ting Kueh, was presented with the BIM Lifetime Achievement Awards for his distinguished contributions to continuous professional development of chemistry, advancement of chemical sciences, popularisation and internationalisation of chemistry.

Here are some of his distinctive contributions to chemistry in Malaysia:

**Datuk Dr Soon Ting-Kueh – Current Positions:** President, Institut Kimia Malaysia (IKM) (2007 – 2014), (2018 – )

**Chairman, Board of Directors**, IKM Law Hieng Ding Foundation (2020 – )

**Chairman, Board of Directors**, KISM Sdn Bhd (2022 – ) & **Director** (2018 – 2022)

**Titular Member**, IUPAC Committee on Chemistry Education (CCE) (2018 – )

**Member of Executive Board**, Commonwealth Chemistry (2022 - )

**President**, National Council of Senior Citizens Organisations Malaysia (NACSCOM) (2012 – 2020), (2022 – )

### Academic and Professional Qualifications

**B. Sc. Hons** (II Upper) (University of Malaya, 1972)

**Ph.D.** (University of Malaya, 1975)

**Fellow**, Malaysian Institute of Chemistry (FMIC, 1993)

**Fellow**, Malaysian Oil Scientists' and Technologists' Association (FMOSTA, 1996)

**Fellow**, Malaysian Scientific Association (FMSA, 1997)

**Fellow**, Academy of Sciences Malaysia (FASc, 2006)

**Fellow**, Federation of Asian Chemical Societies (FFACS, 2007)

**Fellow**, Royal Society of Chemistry (FRSC, 2008)

### Federal Awards

**P.J.N.** (Awarded the Panglima Jasa Negara which carries the title "Datuk", by His Majesty Yang Di Pertuan Agong in 2001)

**K.M.N.** (Awarded the Kesatria Mangku Negara by His Majesty Yang Di Pertuan Agong in 1995)

Datuk Dr Soon graduated from University of Malaya with a B.Sc. Hons (Chemistry) in 1972 and obtained his Ph.D. majoring in physical

organic chemistry from the same university in 1975. He joined Institut Kimia Malaysia (IKM) as a member in 1975 and was elected into the IKM Council from 1988 onwards. He became IKM President from 2007 – 2014. In 2018, he returned as IKM President and served until present. Since 1975, Datuk Dr Soon has been actively involved in advancing chemical sciences, promoting continuous professional development of the chemistry profession, popularizing chemistry to the younger generation and general public, and internationalization of Malaysian chemistry. Below are some of his contributions.

### 1. Continuous Professional Development of the Chemistry Profession

Datuk Dr Soon is actively involved in the continuous professional development of chemists in Malaysia. The IKM Professional Development Centre was set up in 2001 to provide training programmes and continuing education courses to practicing chemists as well as other professionals. The Centre conducts close to 30 professional courses and workshops a year since 2001.

### Membership Development

With active promotion and marketing, IKM membership has been growing at about 30% per annum in the last ten years. Current membership is above 5,000.

### 2. Advancing Chemical Sciences in Malaysia

IKM has been very active in promoting the advancement of chemical sciences in Malaysia ever since its inception in 1967. IKM has organised many scientific meetings, conferences and workshops to promote the advancement of chemistry in Malaysia.

IKM is also very active in organising regional and international scientific meetings and conferences. Some of these are as follows:

- ♦ 12th Asian Chemical Congress (12ACC) in Kuala Lumpur, Malaysia in 2007
- ♦ 10th Asian Conference on Analytical Sciences





(ASINALYSIS X) in Kuala Lumpur, Malaysia in 2010

- ♦ IUPAC International Conference on Chemical Research Applied to World Needs (ChemRAWN XIX) in Kuala Lumpur, Malaysia in 2011
- ♦ 24th IUPAC International Conference in Chemistry Education (ICCE) in Kuching, Malaysia in 2016
- ♦ 7th Asian Conference on Coordination Chemistry (7ACCC) in Kuala Lumpur, Malaysia in 2019

In 2016, IKM started a new series of annual regional conferences, the International Congress of Pure & Applied Chemistry, or ICPAC. ICPAC first started as the International Symposium of Pure & Applied Chemistry (ISPAC) in Kuching, Malaysia in 2016. In 2017, it was converted to ICPAC and subsequently, the following ICPACs were organised:

- ♦ ICPAC Ho Chi Minh City 2017 in Ho Chi Minh City, Vietnam
- ♦ ICPAC Seam Reap 2018 in Seam Reap, Cambodia
- ♦ ICPAC Langkawi 2018 in Langkawi, Malaysia
- ♦ ICPAC Yangon 2019 in Yangon, Myanmar
- ♦ ICPAC Kota Kinabalu 2022 to be held in November 2022 in Kota Kinabalu, Sabah, Malaysia

### Malaysian Journal of Chemistry (MJC)

IKM also publishes an online journal, the Malaysian Journal of Chemistry (MJC) which is Scopus-indexed since 2018.

### 3. Chemistry Education, Popularisation and Public Appreciation of Chemistry

Datuk Dr Soon plays a very active role in chemistry education, popularisation and public appreciation of chemistry, both within and outside Malaysia. He is the Chairman of **IKM Chemical Education and Community Section Committee** since 1988. Under his chairmanship, the Section organises many activities in chemical education, popularisation, and public appreciation and understanding of chemistry including the following:

- **Kuiz Kimia Kebangsaan Malaysia or K<sub>3</sub>M** which is an annual national chemistry quiz started in 2002 with 10,399 students taking part and increasing steadily over the year to 39,068 in 2020; and
- **Karnival Kimia Malaysia (K<sub>2</sub>M)** which is an annual public understanding of chemistry function aimed at secondary school students and the general public started in 2006.

### IKM Law Hieng Ding Foundation

Under the initiatives of Datuk Dr Soon, the IKM

Law Hieng Ding Foundation was established in 2020 with Datuk Dr Soon as the Chairman of the Board. The main objectives of the Foundation are to promote chemistry education, popularisation of chemistry and further development of the chemistry profession.

For his contribution to chemical education and public understanding of chemistry, IKM presented him with the **Tan Sri Dato' Seri Law Hieng Ding Award** in 2010.

### 4. Internationalisation of Malaysian Chemistry

In addition to playing a major role in advancing chemistry in Malaysia, Datuk ChM Dr Soon is also very active in internationalisation of Malaysia chemistry through his active involvement in international and regional chemistry organisations such as IUPAC, FACS, OPCW & Commonwealth Chemistry.:

#### Federation of Asian Chemical Societies (FACS)

IKM is a Founding Member of the Federation of Asian Chemical Societies (FACS). Datuk Dr Soon plays an active role in FACS, being its President from 2007 – 2009, the Coordinator of Projects from 2009 – 2015 and Treasurer from 2015 – 2019. IKM is the only FACS member that has a serving member in the FACS Executive Committee since its inception in 1979. In the last few years, Datuk Dr Soon was actively promoting collaborations among FACS member societies. He organized the Cambodian Malaysian Chemical Congress (CMCC) in Seam Reap, Cambodia in 2012 and the Vietnam Malaysian Chemical Congress (VMCC) in Hanoi, Vietnam in 2014. Subsequently, he organized a series of ICPACs in Ho Chi Minh City, Vietnam in 2017, Seam Reap, Cambodia in 2018, Langkawi, Malaysia in 2018 and Yangon, Myanmar in 2019.

#### International Union of Pure & Applied Chemistry (IUPAC)

Institut Kimia Malaysia (IKM) joined the International Union of Pure & Applied Chemistry (IUPAC) as the National Adhering Organisation (NAO) in 2009. From then on, IKM started to play an active role in international chemistry. In 2011, IUPAC celebrated the International Year of Chemistry (IYC) and Datuk Dr Soon was invited to serve as a Member of the IUPAC IYC Management Committee. In conjunction with IYC 2011, IKM also organised the IUPAC International Conference on Chemical Research Applied to World Needs (ChemRAWN XIX) in Kuala Lumpur, Malaysia in 2011. Datuk Dr Soon later served as a Titular Member of IUPAC ChemRAWN Committee from 2012 – 2018. The 24th IUPAC International Conference in Chemistry Education (ICCE) was held in Kuching, Malaysia in 2016. Datuk Dr Soon serves as a Titular Member of the

IUPAC Committee on Chemistry Education (CCE) from 2018 until present. At CCE, he brought the Young Ambassadors of Chemistry (YAC) programme to Malaysia in 2012.

## IUPAC 2025 & MACRO 2026

In 2019, IUPAC celebrated its 100th Anniversary at its birth place Paris. At the IUPAC 50th General Assembly (50GA) in Paris, IKM won the bid to organise the IUPAC 53rd General Assembly (53GA) and 50th World Chemistry Congress (50WCC) in Kuala Lumpur, Malaysia in 2025. At the same function, IKM also won the right to organise the 51st IUPAC World Polymer Congress (MACRO 2026) in Kuching, Malaysia in 2026.

## IKM's Role in IUPAC

With Datuk Dr Soon playing a more proactive part in IUPAC, IKM is gradually playing a more active and significant role in IUPAC with a number of representatives in various IUPAC Divisions and Committees. Currently, IKM has three Titular Members in IUPAC, namely Prof Dr Chan Chin Han in Division IV Polymer, Prof Dr Sharon Teh Geok Bee in Division VII Chemistry and Human Health, and Datuk Dr Soon in Committee on Chemistry Education (CCE).

## 5. Datuk Dr Soon's contributions to Science & Technology organisations in Malaysia

In addition to his involvement in the advancement of chemistry and Institut Kimia Malaysia, Datuk Dr Soon Ting Kueh also plays an important role in many scientific and technological organisations in Malaysia. Below are just some of his involvements in these organisations:

- ♦ **President**, Malaysian Scientific Association (MSA) (1996 – 2006)
- ♦ **Honorary Secretary**, Confederation of Scientific and Technological Associations in Malaysia (COSTAM) (1992 – 2006)
- ♦ **Founding Secretary**, Malaysian Oil Scientists' and Technologists' Association (MOSTA) (1989 – 2000)
- ♦ **Chairman**, Board of Directors, KISM Sdn Bhd (2001 – 2014)
- ♦ **Vice President**, Board of Directors, Balai Ikhtisas Malaysia (BIM) (2015 – 2018)
- ♦ **Trustee**, International Foundation for Science (IFS) (2001 – 2008)
- ♦ **President**, National Council of Senior Citizens Organisations Malaysia (NACSCOM) (2012 – 2020)

## 6. Datuk Dr Soon's service and contributions to Chemistry & IKM

For more than three decades, Datuk Dr Soon has served and contributed to the development of chemistry in general, and IKM in particular. Under his exceptional and exemplary leadership, IKM has

grown into a strong and reputable professional scientific organisation recognised by S&T organisations and the international scientific community. Chemical sciences have also undergone tremendous development with intensified research and development, and collaboration and networking with top scientists from all over the world. Malaysian chemists are playing an increasingly important role in international chemistry. Chemistry has also become a more popular subject among science students in schools.

## 7. Professional Recognition and Honour

For his contributions to the development of chemistry worldwide, Datuk Dr Soon Ting Kueh received the following honour and recognition:

- **Institut Kimia Malaysia Gold Medal 2002**
- **Malaysian Scientific Association Golden Jubilee Meritorious Award 2005**
- **Tan Sri Dato' Seri Law Hieng Ding Award 2010**
- **Honorary Doctorate, Kazan National Research Technological University, Republic of Tatarstan, Russia (2012)**
- **Honorary Fellow, Singapore National Institute of Chemistry (2013)**
- **FACS Citation Award 2015**
- **BIM Lifetime Achievement Award 2022**

Datuk Dr Soon will continue to play an active role in advancing chemistry, further development of the chemistry profession in Malaysia, and promoting chemistry education and public appreciation of chemistry among the younger generation and the general public. For his exceptional leadership and distinctive contribution to the development of chemistry in Malaysia, Balai Ikhtisas Malaysia (BIM) presented him with the BIM Lifetime Achievement Award in 2022.







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## Preventing Terrorism in Malaysia

A Start-up and Coordination Meeting for the Chemical Risk Identification and Mitigation Programme (CRIMP) was held on 18 Aug 2022 at the Royal Police College in Cheras. The objective of the meeting is to give details on the initiative introduced by INTERPOL in the context of Chemical Safety through INTERPOL's Chemical and Explosive Terrorism Prevention (CHEMEX) Programme. This includes the objectives and methods outlined in the CRIMP project. Two representatives from INTERPOL, Mr Alan Grimmer, Coordinator of Chemical and Explosives Terrorism Unit and Mr Dave Hargreaves, Specialised Officer from the same unit gave the briefing on the CRIMP Project to enable countries to achieve the following:-

1. Establish working group with representatives from law enforcement and the chemical industry
2. Identify main chemicals of concern with regard to criminal and terrorist activity
3. Understand chemical industry security programmes and how to develop and implement them, and
4. Review their chemical risk assessment strategy in order to identify security concerns and allow the implementation of an effective law enforcement-led chemical counter measures programme (built around chemical industry outreach) designed to mitigate the illicit diversion or use of chemicals.

CRIMP has been delivered successfully in partnership with a number of INTERPOL member countries, including Pakistan and Iraq, and is currently underway in Tunisia, Morocco, Jordan and the Philippines. The start-up meeting was chaired by SAC Azari bin Abdul Rahman, the Deputy Commissioner of the Royal Malaysian Police. Many Units of the Royal Malaysian Police were present including the Forensic Laboratory, DNA Data Bank, Internal Security, General

Operation Force, Operation Intelligence and the Chemical, Biological, Radio, Nuclear and Explosive (CBRNE) units were present. Many stakeholders were invited and Datin ChM Dr Zuriati Zakaria represented IKM. Other stakeholders were from the Government agencies such as Malaysian Maritime Enforcement Agency, Ministry of Defence, Royal Customs, Fire and Rescue Department, Ministry of Energy and Natural resources, Ministry of Health, Atomic Energy Licensing Board, Ministry of Agriculture and Food Industry, Ministry of International Trade and Industry, STRIDE, Department of Occupational Safety and Health and Department of Environment. Petroleum Nasional Berhad (PETRONAS) being an important producer of chemical and petrochemical products represented the industry for the meeting. The CRIMP project will start with the Foundation Phase One Workshop-Chemical Risk Assessment, creating the Chemical Matrix and establishing the team. This phase begins the actual delivery of the Chemical security content. The Foundation Phase Two will concentrate on the Chemical Counter measures. With the ongoing support from INTERPOL, it is hoped that there will be a coordination among all agencies to make Malaysia safe from terrorism.





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Dr. Allia Bt Shahril & S. Jayasilan  
Forensic DNA Division, JKMPJ

A key element of planning an experiment is assessing the hazards and potential risks associated with the chemicals, laboratory operations and the instruments to be used. In a DNA laboratory, a freezer is a must-have item. To preserve the structure of the DNA, biological specimens or materials subjected to DNA analysis must be maintained in a freezer. Many different types of refrigerators with variable temperatures are used in our DNA laboratory, depending on their function in the DNA analysis procedures. While the freezer is essential for keeping biological materials, it can also pose a threat if precautions are not taken to ensure its safe use. To reduce the danger and extend the freezer's longevity, the various risks linked to the freezer must be considered.

## Hazard and Risk

1. Fire/ explosion:
  - Power Cord-overloaded with too many plugs.
  - Refrigerant- highly flammable and at risk of explosion if leaked.
2. Infection or toxic effects from biological samples stored.
3. Physical danger due to being large and heavy. There is a risk of falling and injury when moving from one location to another.
4. Temperatures within the unit will rise as a result of power outages. This could result in an energy breakdown.



## ACTIONS/ SAFETY PRECAUTIONS

- ✓ Aqueous solutions may be stored in laboratory refrigerators and freezers. If this is the case, no flammable materials should be kept in these units. Food and beverages are not permitted, and the units should be clearly marked as such.
- ✓ Instead of using an extension cord, plug directly into the wall.
- ✓ The highly flammable refrigerant must be handled with caution. To avoid leaks, avoid defrosting with a sharp item.
- ✓ The location is critical because a small enclosed area increases the proportion of refrigerant to regular air in the event of a leak, making the air highly flammable.
- ✓ To guarantee that there are no additional obstructions that can hinder airflow, keep the freezer and the wall at a safe distance according to the directions in the manual.
- ✓ If you hear a peculiar noise emanating from the freezer, unplug it and call the manufacturer or a qualified expert.
- ✓ The freezer should not be placed in the corridor since it may hinder the escape path.
- ✓ Install a smoke alarm system to alert us if there is any smoke coming from the freezer.
- ✓ Wear gloves and a mask if the contents of the freezer are contagious or harmful. All of the contents of the freezer should be labelled so that they can be identified. If the contents are harmful, proper warning signs must be placed on the outside of the freezer.
- ✓ Temperatures within the unit will rise as a result of power outages. This could result in an energy breakdown. Please keep this in mind and use the available emergency power outlets.



FUMING  
Refrigeration







# TAMING THE TERROR OF AUDITS

OCCUPATIONAL HEALTH & SAFETY (OSH) AUDITS. ONE OF THE MOST FEARED PROCEDURE IN ANY ORGANISATION. THERE IS SOMETHING SINISTER ABOUT THIS PROCESS WHERE AUDITEES CAN SUDDENLY DISAPPEAR FOR NO REASON WHICH CAUSES THE BEWILDERMENT OF THE AUDITORS. WHY THE FEAR? LET'S TALK.



ALTHOUGH IT MAY SEEM LIKE COMMON SENSE, REMIND EVERYONE THAT 'HONESTY' IS IMPORTANT.

Taking the fear out of audits is a simple task. Audits do not have to be big, scary events. Done right, they can help a company improve. Common audit advice is to plan ahead for an audit, so employees know what to expect. It helps people know where records are located and what questions they are likely to be asked.

However, over-preparation is also undesirable. People who are nervous will suffer the most. They will likely burst which should not be the case. Organization should be following their OSH management system regulation all the time, so they do not need to have a mad dash in the weeks before an

audit. Ideally, audit should just be a regular day at the company.

Most people do not think of audits as a 'conversation', but that is ideally what they should be. The parties involved should listen to each other, and plan to get results. It is not an investigation. So do not be afraid of audits; but do take them seriously.

There are several tasks that need to be checked for an OSH audit. Please ensure that the most recent versions of OSH documents (OSH policies, management programme, list of aiders, OSH committee & emergency wardens, emergency response plan, etc.) are updated and properly displayed on the OSH corner.

All newly employed staff should have attended the induction course. All area if possible, must be inspected before audit. General housekeeping is good practice; bulky items must be stored at waist height, a trolley should be available for heavy items, a ladder must be available to reach high shelves, secured items should be appropriately stored, chemical waste should be properly disposed of and so on.

During audit, the following documents must be available for the auditors; record of

training for the staff, complete building evacuation form, first aid assessment, workplace inspection, copies of incident reports, and examples of OSH information or training given to the staff e.g. safety quizzes, notes, lectures, etc.



SITE VERIFICATION AUDIT

So, you have prepared everything and managed to finish the audit ritual. Your work is actually just starting. The most important thing is what happens after the audit. The key is to be sure you are working your way through the non-conformances. Having non-conformances does not equate to having an apocalypse. Accept, plan, rectify the mistakes and move forward. There is no need to be feared. Do not take leave during that day; **Tame that terror of yours.**



EVERYTHING THAT YOU WANT IS ON THE OTHER SIDE OF YOUR FEAR



Dr. Allia binti Shahril has been a Scientific Officer in the Forensic DNA Division of Department of Chemistry, Malaysia since 2014. She earned a Bachelor's Degree in Forensic Science (2008) and a PhD in DNA fingerprinting from Universiti Sains Malaysia (2016). Her research interests include Population Genetics and Ancestry in Malay Sub-ethnic Groups, as well as DNA Fingerprinting Advancement.



Mr. Zulhilmi Husni has been a Scientific Officer in the Forensic DNA Division of Department of Chemistry, Malaysia since 2014. He has a Bachelor's Degree in Chemistry from Universiti Kebangsaan Malaysia in 2012 and a master's degree in pharmacology from Universiti Sains Malaysia in 2016.



Mr. Jayasilan a/l Sinnathurai has been a Scientific Officer in the Forensic DNA Division of Department of Chemistry, Malaysia for 19 years since 2003. He earned a Bachelor's Degree in Industrial Chemistry from Universiti Teknologi Malaysia (2002) and a Master's degree in Forensic Science from Universiti Teknologi Malaysia (2013). He also has an Internal Auditor for Occupational Safety and Health Management System (OHSAS 18001:2007 and ISO 45001: 2018) and has been appointed as OSH Manager/ Deputy OSH Manager for the department throughout his career.



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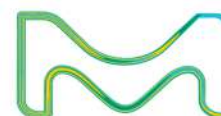
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# INSTITUT KIMIA MALAYSIA

MALAYSIAN INSTITUTE OF CHEMISTRY

(Inaugurated on 8 April 1967, incorporated under Chemists Act 1975 on 1 November 1977)

127B, JALAN AMINUDDIN BAKI, TAMAN TUN DR ISMAIL, 60000 KUALA LUMPUR

TEL: 603-7728 3272 FAX: 603-7728 9909

EMAIL: ikmhq@ikm.org.my

WEBSITE: <http://www.ikm.org.my>

FACEBOOK: Institut Kimia Malaysia

President: Datuk ChM Dr. Soon Ting Kueh

## MALAM KIMIA 2022 Friday, 2 December 2022

Malam Kimia 2022 will be held on **Friday, 2 December 2022** at the **Citrine & Ruby Ballroom (Level G), One World Hotel, Bandar Utama, 47800 Petaling Jaya, Selangor**. Presentation of the IKM Annual Chemistry Awards such as the IKM Gold Medal, Graduate Chemistry Medals, Merit Awards and Laboratory Excellence Awards will be made during the function. The charges for dinner are **RM250.00** per person for IKM members and their spouses only and **RM300.00** per person for non-members. Companies are welcomed to book a table for **RM3000.00**.

The closing date for purchase of dinner tickets is **15 November 2022**.

### REPLY SLIP

Executive Director  
Institut Kimia Malaysia  
127B, Jalan Aminuddin Baki  
Taman Tun Dr. Ismail  
60000 Kuala Lumpur

Date.....

### MALAM KIMIA 2022

1. I wish to purchase the following dinner tickets (Fill in the number of tickets in box):

Member / spouse  at RM250.00 each

Guests (non-members) / Organization  at RM3000.00 for 10 pax

Guest (non-member)  at RM300.00 each

2. I attach payment proof of RM ..... for the dinner ticket(s).

Signature: .....

Name: .....

IKM Membership Number:.....

Address: .....

..... Mobile Phone Number: .....

Mode of Payment (direct online transfer / walk-in / cheque / ATM transfer)

Name of Account: INSTITUT KIMIA MALAYSIA

Name of Bank: PUBLIC BANK BERHAD

Account Number: 3127 731017

Cheque should be made payable to "INSTITUT KIMIA MALAYSIA"

R.S.V.P. by fax or email before 15 November 2022

Fax: 03-77289909 or Email: [siti@ikm.org.my](mailto:siti@ikm.org.my) or  
[azizi@ikm.org.my](mailto:azizi@ikm.org.my)





# INSTITUT KIMIA MALAYSIA

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EMAIL: ikmhq@ikm.org.my

WEBSITE: <http://www.ikm.org.my>

FACEBOOK: Institut Kimia Malaysia

President: Datuk ChM Dr. Soon Ting Kueh

To: All Senior IKM Members,

Dear Senior IKM Members,

**Senior IKM Members Get-together & Malam Kimia 2022 on Friday, 2 December 2022, Citrine & Ruby Ballroom (Level G), One World Hotel, Bandar Utama, 47800 Petaling Jaya, Selangor**

IKM Council has decided to invite all **Senior IKM Members (age 60 years and above with at least 10 years of membership)** to attend the Malam Kimia 2022 to be held on **Friday, 2 December 2022** at the **Citrine & Ruby Ballroom (Level G), One World Hotel, Bandar Utama, 47800 Petaling Jaya, Selangor**. We are very pleased to extend a complimentary invitation personally to you and hope that you will be able to attend. If you would like to bring your spouse or family members, additional dinner tickets can be obtained from IKM Secretariat. Kindly reply when you receive this letter so that the invitation card/dinner ticket can be sent to you. We look forward to your attendance at this function.

**ChM Dr Aqeel Saravanan**  
Executive Director

## REPLY SLIP

Executive Director  
Institut Kimia Malaysia  
127B Jalan Aminuddin Baki  
Taman Tun Dr Ismail  
60000 Kuala Lumpur

Date: .....

### MALAM KIMIA 2022

- Please send me a complimentary dinner invitation card / dinner ticket ☐
- I wish to purchase additional dinner tickets as follows: (Fill in the number of tickets in box):  
Member / spouse ☐ at RM250.00 each      Guests (non-members) / ☐ at RM3000.00 for 10 pax  
Organization ☐  
Guest (non-member) ☐ at RM300.00 each
- I attach payment proof of RM ..... for the dinner ticket(s).

Signature: .....

Name: ..... IKM Membership Number:.....

Address:.....

..... Mobile Phone Number: .....

Mode of Payment (direct online transfer / walk-in / cheque / ATM transfer)	
Name of Account: INSTITUT KIMIA MALAYSIA	Name of Bank: PUBLIC BANK BERHAD
Account Number: 3127 731017	Cheque should be made payable to "INSTITUT KIMIA MALAYSIA"

R.S.V.P. by fax or email before 15 November 2022

Fax: 03-77289909 or Email: [siti@ikm.org.my](mailto:siti@ikm.org.my) or [azizi@ikm.org.my](mailto:azizi@ikm.org.my)



## Chemistry Subject – Comics as a New Teaching and Learning Method

**DR. NUR NADIA DZULKIFLI**

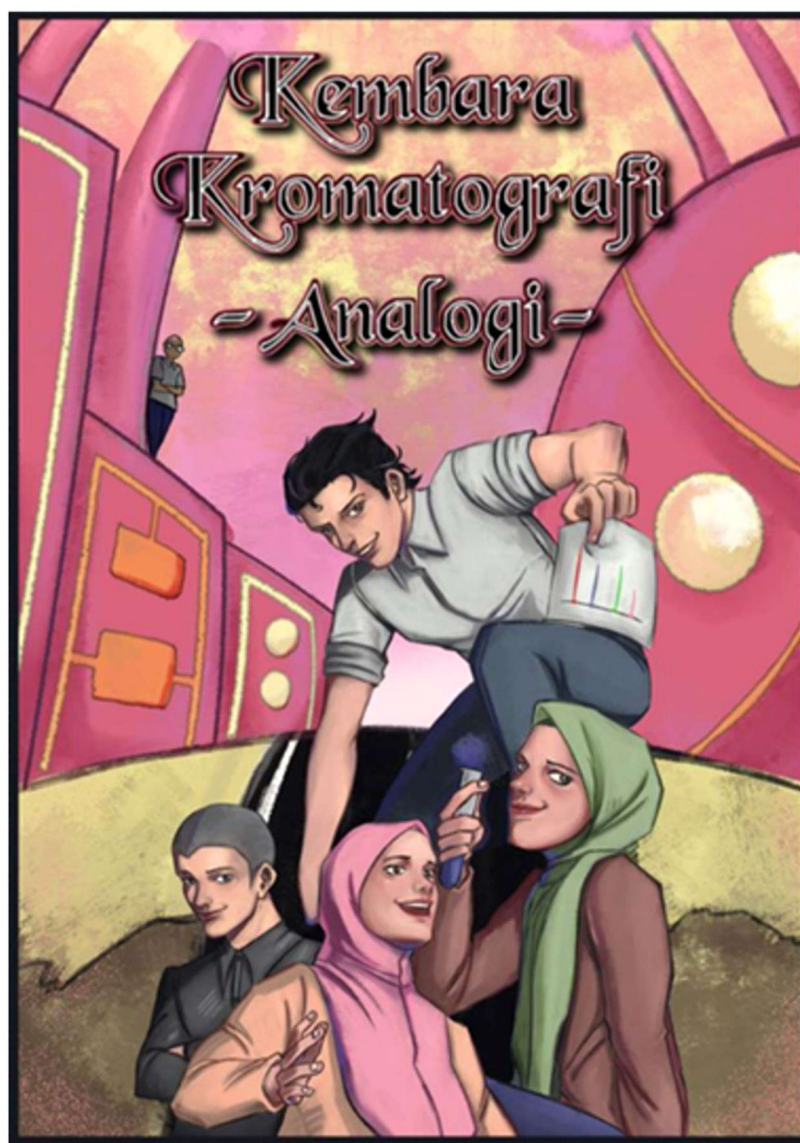
School of Chemistry and Environment, Faculty of Applied Sciences  
Universiti Teknologi MARA Cawangan Negeri Sembilan, Kampus Kuala Pilah

The Analytical Separation Method is a chemistry course taught at Universiti Teknologi MARA (UiTM). This course covers the use of chromatographic techniques, and students must be able to describe the principles and terminologies used, as well as relate them to appropriate analogies. Students must be well versed in identifying the basic principles that involve the use of many terminologies in this course to fully understand the method of separation. Mobile phase, stationary phase, polarity, analyte, retention time, and interaction are all part of it. When this course covers many theories that must be understood before being able to solve questions related to critical analysis, major challenges can be seen. Obstacles could arise in any learning process if learning takes place through memorization without understanding, as Klemm discussed in 2007. Hence, the lecturer plays an important role in ensuring that knowledge delivery is attractive and easy to understand.

Besides that, a solid understanding of this course is critical in the development of solid knowledge among graduates for them to survive in the job market. The Pedagogical Content Knowledge (PCK) method states that teachers must first understand the knowledge before presenting it to students during the teaching process. Analogy-based teaching was discovered to be capable of increasing students' understanding of the subject matter. As a result of this phenomenon, it is critical to create an interactive teaching tool to ensure that students can master this course from the ground up before moving on to deeper exploration and analysis. The level of students' understanding of terminologies and analogies, as well as their readiness to adopt mixed teaching approaches and various interactive teaching methods, has been determined based on the outcome of a

questionnaire administered to a few UiTM campuses.

Because terminology plays an essential part in the interpretation of contexts and technical texts, the research finding implies that the level of students' understanding without intensive guidance may pose challenges for lecturers in the teaching and learning process in the Analytical Separation Method subject. According to Gokhan et al. (2012), most students remember only the terminology and not the study's content. As a result, the students will not be able to recognise that they were able to use analogical reasoning





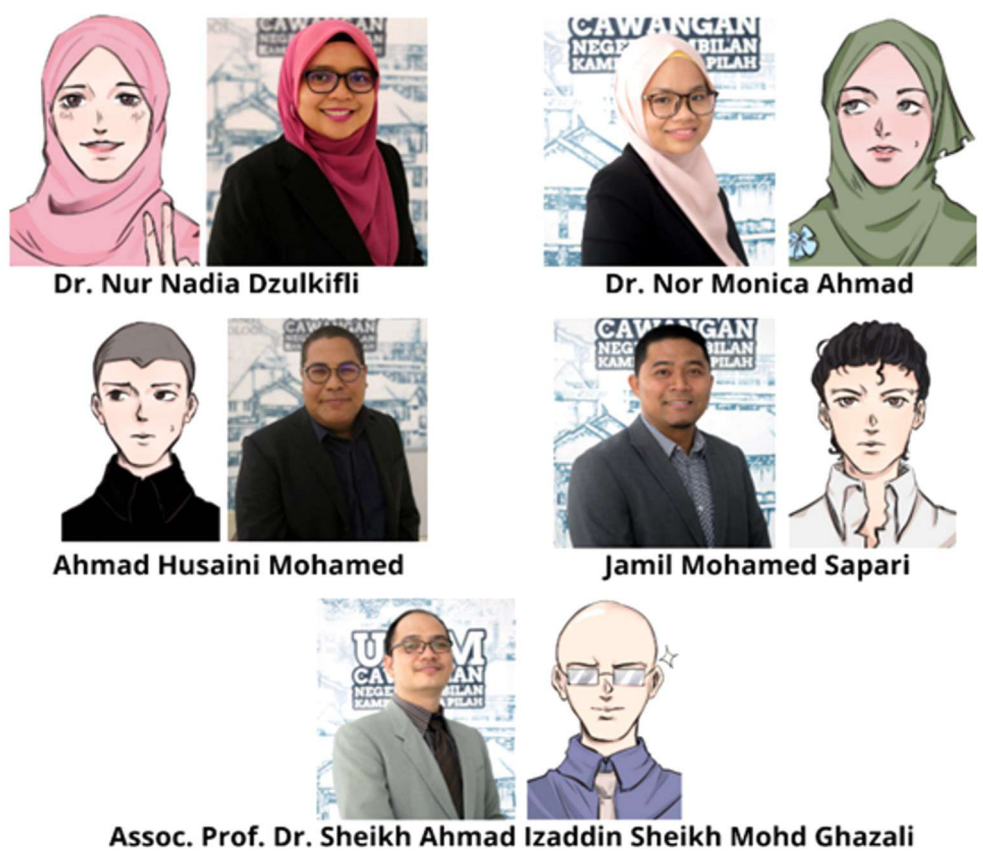
when attempting to solve a specific problem, which will most likely result in different connections and inferences than those intended by the lecturers. According to Lolita (2015), analogies are used to develop students who are capable of applying what they have learned in the classroom to their daily lives. Regrettably, data from a questionnaire administered to a few UiTM campuses revealed that the students did not meet the discussed criteria.

Another goal of the study was to determine whether students were mentally prepared by using an interactive teaching material aligned with Malaysia's Ministry of Education's Education 5.0 initiative. Most students agreed to use interactive materials for better assessment and learning satisfaction for the Analytical Separation Method subject, according to the findings. According to Senthamarai (2018), interactive teaching styles such as videos, e-books, and comic cartoons could provide a good learning environment and be beneficial in capturing students' attention and participation. Students who learned through the interactive method were better able to relate the terminology and analogy for a better understanding of the subject instead of memorising them.

My team used Design Thinking to solve students' problems by relating the terminology and analogy to daily life. From the questionnaires and brainstorming findings, we decided to produce a comic book that contains storylines that are related to terminology, analogy, and daily life. The comic's title is *Kembara Kromatografi: Analogi*. Our main goals to produce the comic book are to improve students' understanding of the Analytical Separation Method course, propose a new engaging learning module that does not rely on "Talk and Chalk," and improve knowledge transfer effectiveness and efficiency. We are hopeful that our efforts will bear fruit and that positive feedback from Universiti Teknologi MARA, UiTM, and other educational institutions will be received. With the help of this comic, students will be able to relate terminology and analogy, as well as gain mastery of the subject. Our long-term plans include creating an English-language comic and converting more chapters into comics.

#### References:

- 1) Klemm, W.R. (2007). What Good Is Learning If You Don't Remember It? *The Journal of Effective Teaching*, 7, 61-73
- 2) Gokhan Ugur, Refik Dilber, Yasemin Senpolat, Bahattin Duzgun. 2012. The Effects of Analogy on Students' Understanding of Direct Current Circuits and Attitudes towards Physics Lessons. *European Journal of Educational Research* 1(3), 211-223.
- 3) Senthamarai, S. 2018. "Interactive teaching strategies". *Journal of Applied and Advanced Research*, 3(1), 36 – 38.



## MYCN Voices - Outstanding Young Chemist Award 2021 Winner Showcase Webinar

On 19 May 2022, Institut Kimia Malaysian and the Malaysian Young Chemist Network (MYCN) successfully organised its inaugural Outstanding Young Chemist Award 2021 Winner Showcase Webinar. After more than 50 years of IKM establishment, this is the first award for fellow young chemists throughout Malaysia. The webinar has attracted around 50 participants from various backgrounds ranging from students, chemists, research officers at various R&D institute, industries, and universities in Malaysia. Asst Prof ChM Dr Yvonne Choo (Xiamen University Malaysia Campus) was the moderator and chair of the webinar.

The webinar aimed to showcase deserving past winners in hope that young chemists could be inspired and be motivated by the research sharing and would put themselves forward for a chance to be recognised. In a reciprocal manner, the platform could help the speakers reach out to potential collaborators.

The webinar began with a welcome speech by Assoc Prof ChM Dr Juan Joon Ching (Universiti Malaya), who is the founder and chairman of MYCN cum the Honorary Assistant Secretary of IKM. Shortly after, Assoc Prof ChM Dr Ng Eng Poh from Universiti Sains Malaysia (USM) and the winner of the IKM Outstanding Young Chemist Award 2021 Winner of the Academic Category gave his talk on "Green Synthesis Strategies and Advances in Nanosized Zeolites".

Next, Ts ChM Dr

Khalisanni bin Khalid from Malaysian Agricultural Research and Development Institute (MARDI) and the winner of the IKM Outstanding Young Chemist Award 2021 Winner of the Industry Category gave his talk on "Flexible Nanoparticle Catalysis in the Reaction of Piperidine with Phenyl Salicylate Ions (PSa-)". Both of these talks was followed by a Q&A session. There was a closing remark at the end of the webinar by Assoc Prof

ChM Dr Phang Sook Wai (TARUC) before everyone was invited to turn on their cameras for a group photo.

Once again, thank you to all the organizing committee members, speakers and participants for making this a successful webinar.

If you have missed out on the webinar that day and would like to watch a playback of the webinar, kindly head over to [bit.ly/wwsrec](https://bit.ly/wwsrec).

**Assoc Prof ChM Dr Ng Eng Poh**  
School of Chemical Sciences  
Universiti Sains Malaysia

**IKM Outstanding Young Chemist Award 2021 Winner (Academic)**

**Speaker 1 (Academic)**

**Outstanding Young Chemist Award 2021 Winner Showcase Webinar**

- BSc (1st Class Honours) Industrial Chemistry, UTM
- MSc in Chemistry, UTM
- PhD, University of Mulhouse, Alsace, France
- Postdoc, University of Caen, France
- Senior Lecturer, USM (2010)
- Assoc Professor of Physical Chemistry, USM (2016)
- Deputy Dean of Research, Innovation, Industry & Community Engagement, School of Chemical Sciences, USM
- Top 10 Breakthrough of the Year
- National Academic Award (Journal Publication)
- Outstanding Scientist Award from India
- Leading Scientist of the World from England
- World Class Professor from Indonesia
- Visiting Young Scientist of Lindau Nobel Laureate Meeting from Germany

**MYCN**  
MALAYSIAN YOUNG CHEMIST NETWORK

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**Ts ChM Dr Khalisanni bin Khalid**  
Malaysian Agricultural Research and Development Institute (MARDI)

**IKM Outstanding Young Chemist Award 2021 Winner (Industry)**

**Speaker 2 (Industry)**

**Outstanding Young Chemist Award 2021 Winner Showcase Webinar**

- BSc (Hons) Applied Chemistry, UTM
- MSc in Physical/Environmental Sciences, UM
- PhD in Physical Organic Chemistry/Nanotechnology, UM
- Senior Research Officer Biotechnology and Nanotechnology Research Centre (MARDI, Serdang)
- Won Numerous Awards in:
  - MARDI Science and Technology Exhibition (MSTE)
  - International Engineering Invention & Innovation Exhibition (i-ENVEX)
  - Invention, Innovation and Design (IID)
  - Malaysia Technology Expo (MTE)
  - International Invention, Innovation and Technology Exhibition (ITEX)

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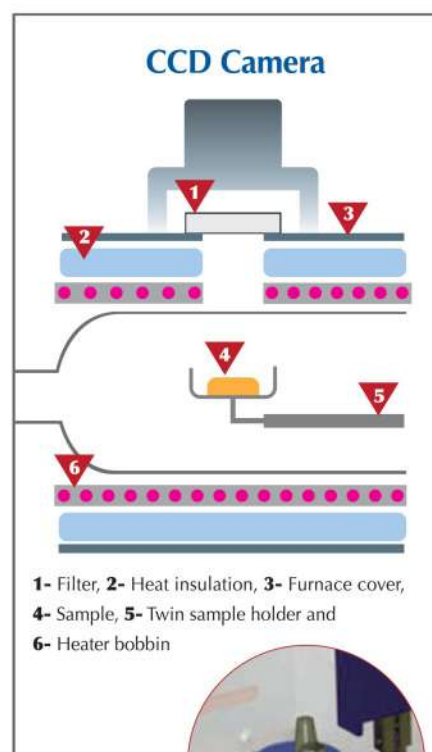
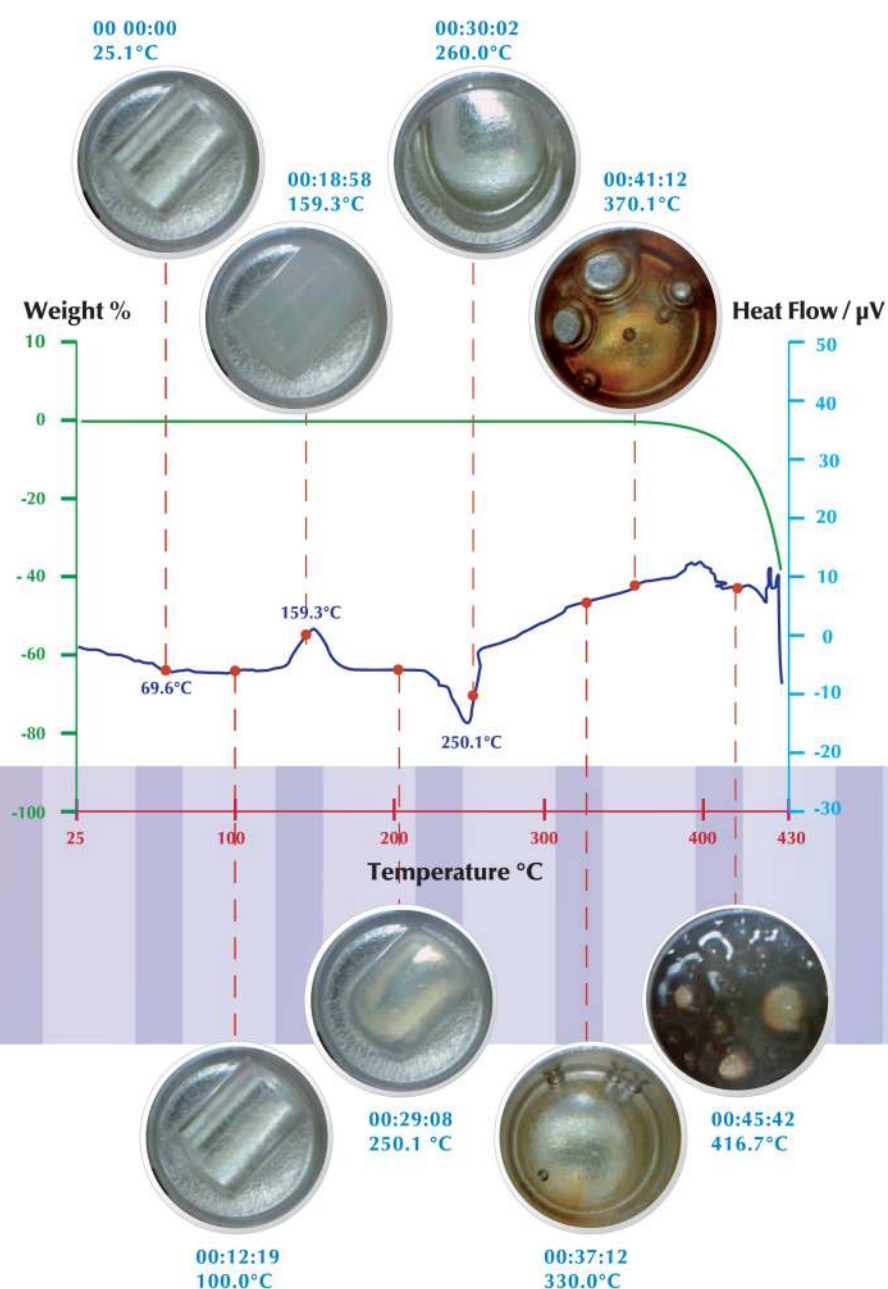




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## IKM Perak Branch Educational Tour to Hovid Berhad

A total of 15 participants joined the tour to Hovid Berhad based in Chemor, Perak on 09<sup>th</sup> August 2022. The tour started at the Manufacturing Plant A at Hovid Bhd Chemor.

Ms Lalitha from the Production Department guided the tour and briefed on the production and manufacturing processes involved such as dispensing, mixing, tabletting/capsuling and packing. The products manufactured at Hovid Bhd Chemor are tablets, capsules and granules. Packing of soft gels is also done at the Chemor plant. Products such as syrup, soft gel, external, penicillin and herbal products are manufactured at Hovid Berhad's Ipoh plant. The tour of the Quality

Control Laboratory was led by Mr Tai from Quality Assurance department. The laboratory has sections for wet chemistry, physical testing and instrumentations. The participants were briefed on the activities and equipments used in this laboratory.

The tour to the Finished Product Warehouse was led by Mr John Chen from the Warehouse Department. The warehouse is equipped with Automated Storage and Retrieval System (ASRS) for easy storage and retrieval.

The tour ended around 12.10 pm.





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## The Faculty of Science and Technology Sustainability and Development Festival (FLARE FST), Universiti Kebangsaan Malaysia in collaboration with IKM Division of Inorganic and Bioinorganic Chemistry

Mr. Wan Subhanal Mu'eiz bin Wan Mohd Ashraf & ChM Dr. Nur Hasyareeda binti Hassan

The Faculty of Science and Technology Sustainability and Development Festival (FLARE FST), Universiti Kebangsaan Malaysia was held for the first time from 25<sup>th</sup> June 2022 to the 2<sup>nd</sup> July 2022. FLARE FST has collaborated with the administration of the Faculty of Science and Technology, Inorganic and Bioinorganic Chemistry Division, Institut Kimia Malaysia, Institute of Environment and Development (LESTARI UKM), Solar Energy Research Institute (SERI), Etika Sdn Bhd, Kechara Soup Kitchen, Zheolab and the Malaysian Institute of Chemistry. A total of 118 Committee Members and 205 participants from the Universiti Kebangsaan Malaysia completed the FLARE FST program which lasted for 8 days to meet all 17 sustainable development goals (SDGs) set by the United Nations (UN) in 2015 which include various aspects of sustainability and development comprehensively. Among the activities carried out during FLARE FST are visits to SERI and LESTARI, communal work in Sungai Langat, workshops with Kechara Soup Kitchen and Zheolab, and a 'Science Career and Innovation (SCI) Fair' themed 'youth development for a sustainable country.'

FLARE FST was opened with the 'Ribbon Run: FLARE FST x TERAS UKM' event on the 25<sup>th</sup> of June 2022 which is based on raising awareness of cancer in conjunction with cancer awareness month and fulfilling SDG 3 which is 'good health and well-being.' This 5-kilometre-long running event is unique where the participants must collect 5 ribbons of different colours where that represent different cancers such as breast cancer (pink), lymphoma (green), leukaemia (orange), childhood cancer (gold) and cancer in general (purple). The communal work, which is corporate social responsibility (CSR) with Etika Sdn Bhd, was held in Sungai Langat and was made possible by the UKM Faculty of Science and Technology (FST) administration,

Etika Sdn Bhd and the Faculty of Science and Technology Student Association (PMFST) with the theme 'It's time for our river.' A total of 350 participants attended on 26<sup>th</sup> June 2022 consisting of UKM FST students and staff, representatives from UKM LESTARI, UKM EKORELAWAN, staff of the Etika Company Group Sdn Bhd, Friends of Langat River Association (FOLR), Friends of River Malaysia (FORM), Indah Water Konsortium, PETRONAS and NGOs from CAVAAdventures have jointly carried out cooperative activities at 10 checkpoints that have been set up around the FOLR recreation site. In addition, exhibitions were also held involving FST's Center for Insect Systematics (CIS), FOLR, Fun with Microbes, and AirBorne sense which uses drones to detect water pollution. This cooperation program was held to realise the 14<sup>th</sup> and 15<sup>th</sup> SDGs: life below water and life on land. Visits to SERI and LESTARI were held on 27<sup>th</sup> June 2022 and 28<sup>th</sup> June 2022 respectively to discuss responsible consumption and production (SDG 12), affordable dan clean energy (SDG 7), and climate action (SDG 13). A visit to SERI's research laboratory showcases SERI's facilities and current research that is being carried out by SERI UKM. A joint workshop with Kechara Soup Kitchen discussed the issue of no hunger (SDG 2). Kechara Soup Kitchen shared about their experiences in providing food aid specially to help the poor and homeless. To meet SDG 1, no poverty, Zheolab was invited to hold a perfume-making workshop and share experiences in the business field to provide exposure and inspiration for the FST students to start a business. Both workshops were held on June 29, 2022.



The volunteering activity to Rumah Bakti Al-Kausar was joined by 50 UKM students on 30 June 2022 focusing on quality education by holding a brief computer programming workshop



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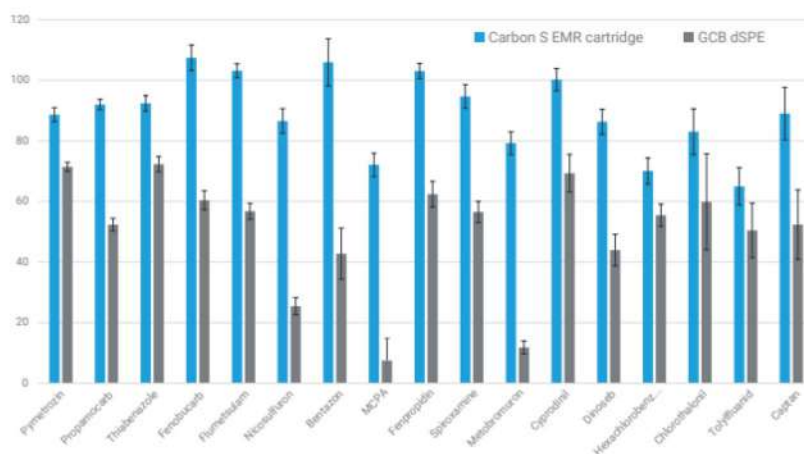
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for the residents of Rumah Bakti Al-Kausar. Various other activities and games successfully cheered up the residents of Rumah Bakti Al-Kausar throughout the volunteering activities. FLARE FST also cooperated in cleaning the facilities at Rumah Bakti Al-Kausar.

The 'Science Career and Innovation (SCI) Fair' was also held for the first time where 17 courses under the Faculty of Science and Technology opened exhibition stands that promoted the courses, course's club activities, and innovations that could be seen throughout SCI-FAIR. Various interesting innovations can be



seen being made by FST students on the 1st and 2nd of July 2022 to liven up the SCI-FAIR exhibition booths of their respective courses. An exhibition stands promoting SDG 6 which is clean water and sanitation was also opened by the members of the FLARE FST Committee. 13 different industries such as the Malaysian Space Agency (MYASA), the Marine Transport Training Institute (MATRAIN), the Department of Chemistry Malaysia, the Department of Meteorology Malaysia, the Department of Statistics Malaysia Selangor and many others have also opened exhibition stands to enliven the SCI-FAIR program and open up opportunities for UKM students to build and expand the industry network for UKM students, especially students of the Faculty of Science and Technology. Lectures/ Forums and activities such as Common Ground and Spectrum have also been held throughout this period to realise other SDGs. "FLARE FST allows me and the students to serve the community, environment, economy and society



directly. FLARE FST opens a new platform for students to discuss social, economic, environmental and community issues professionally and interestingly. FLARE FST opens the eyes of students and communities that everyone is responsible and has the potential and ability to help in developing the youth for a sustainable country and perhaps the world." Says Wan Subhanal Mu'eiz as The Director of the Faculty of Science and Technology's Sustainability and Development Festival. Dr Nur Hasyareeda Hassan an advisor to the Faculty of Science and Technology Student Association says that "We hope that more parties would be gaining awareness about the sustainable and development goals. The students can be the 'key persons' who raise awareness about the SDGs and devote themselves to the aspirations of these SDGs for the local community and society (at least). We hope that collaboration between industry and other universities (national and international) for such impactful things can be continued and possibly on a larger scale."





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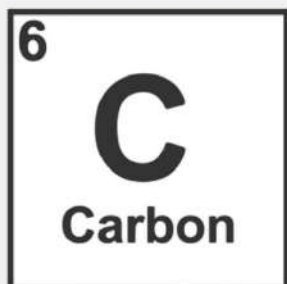


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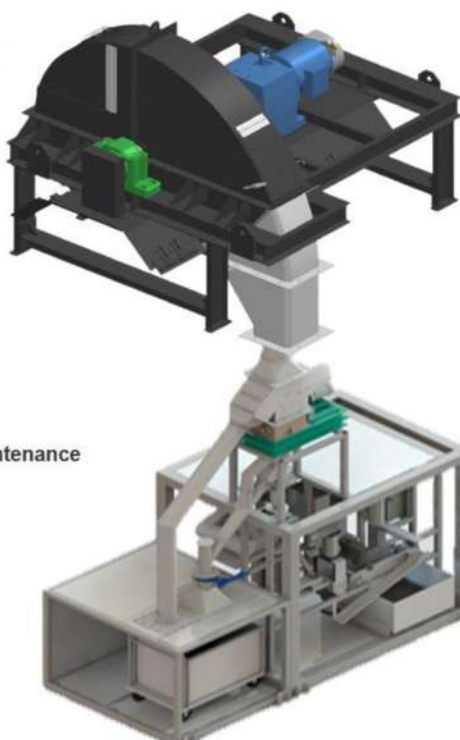
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## K<sub>3</sub>M 2002 – 2022

### KUIZ KIMIA KEBANGSAAN MALAYSIA

Celebrating 21 years of excellence in chemistry education in Malaysia

Kuiz Kimia Kebangsaan Malaysia (K<sub>3</sub>M), or the Malaysian National Chemistry Quiz in English, was first initiated by Institut Kimia Malaysia (IKM) in the year 2002. K<sub>3</sub>M is based on the Australian National Chemistry Quiz (ANCQ) model. In 1997, Dr Soon Ting Kueh, Chairman of the IKM Chemistry Education and Community Section, met up with Professor Charles Fogliani of Charles Stuart University in Sydney, Australia at an international chemistry meeting. Professor Fogliani is the initiator of ANCQ, which, at that time, was very popular among Australian students. The two discussed the possibility of introducing ANCQ to Malaysian students and Dr Soon offered IKM as a platform for Malaysian students to take part in ANCQ. So, in 1998, IKM organised the first ANCQ for Malaysian students and this caught on very quickly and by 2001, nearly 1,000 Malaysian students were taking part in ANCQ.

#### K<sub>3</sub>M over the years from 2002

Then Dr Soon came up with the idea of conducting our own national chemistry quiz. To be known as the “Kuiz Kimia Kebangsaan Malaysia”, or K<sub>3</sub>M, the Quiz was first launched in 2002. Immediately it received very good response from Malaysian students and in its first year, a

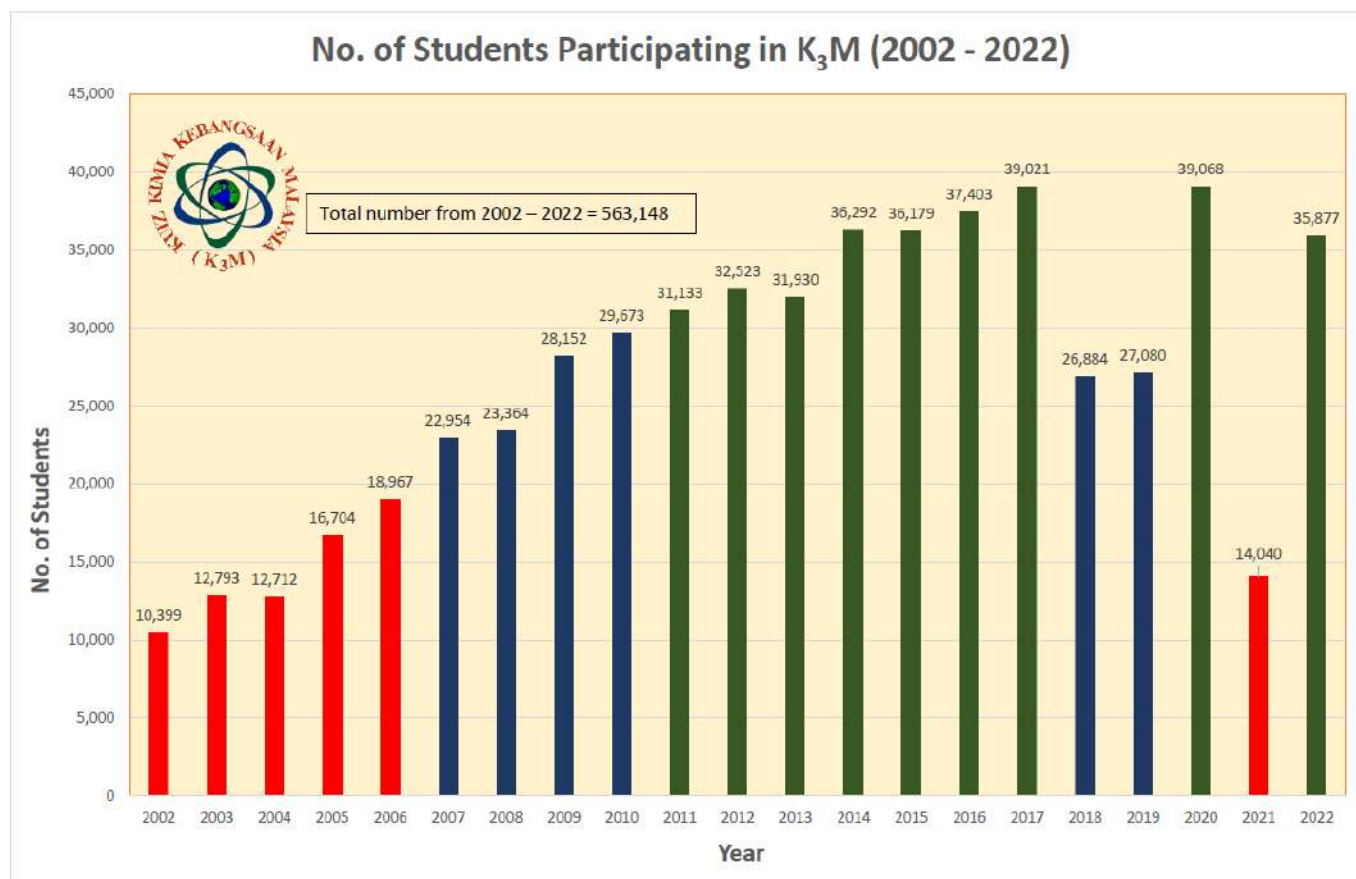
total of 10,399 students took part in K<sub>3</sub>M 2002. The momentum continued and by the year 2007, 22,954 students were taking part in K<sub>3</sub>M 2007. This trend continued and by 2011, 31,133 students were taking part in K<sub>3</sub>M 2011. The popularity of K<sub>3</sub>M among Malaysian students continued until it reached a peak of 39,021 students taking part in K<sub>3</sub>M 2017. Subsequently there is a slight dip before it picked up again in 2020 with 39,086 student taking part in K<sub>3</sub>M 2020. In 2021, due to the Covid-19 pandemic when schools had to be closed, the number fell down to 14,040 for K<sub>3</sub>M 2021. But the number picks up again in 2022 to 35,877 when schools are back to normal.

Up to 2022, the total number of students taking part in K<sub>3</sub>M from 2002 to 2022 is 563,148, more than half a million.

#### Objectives

The Objectives of K<sub>3</sub>M are three (3) folds as follow:

1. To increase students' interest in chemistry
2. To promote students' understanding and appreciation of chemistry
3. To encourage students to take up chemistry in





university and a career in chemistry

With such a large number of students taking part in K<sub>3</sub>M over the last 21 years, we believed that we have achieved these objectives up to a certain degree.



### Format & Structure of K<sub>3</sub>M

Following the ANCQ model, K<sub>3</sub>M comprises 40 questions to be answered over a period of 1 hours and 20 minutes. In the Malaysian K<sub>3</sub>M, there are two levels. One is the Ordinary (Asas) Level for Forms 4 & 5 students. The other is the Advance (Lanjutan) Level for Forms 6 and matriculation students.

The candidates sat for their K<sub>3</sub>M in their respective schools and the OMR Forms were sent back to IKM for marking and grading. Results will be announced to the students before the schools close for their year-end holidays.

A K<sub>3</sub>M Technical Committee is set up by IKM to oversee the setting of the quiz questions and carry out the grading of the scores. Chairman and members of the K<sub>3</sub>M Technical Committee are appointed for a period of three years and they are from universities, schools and colleges.

Each K<sub>3</sub>M participant will be given a Certificate of Participation in K<sub>3</sub>M. The scores of the quiz will be further graded into the following categories based

upon their scores:

- Merit (Merit)
- Kepujian (Excellent)
- Cemerlang (Distinction)

Certificates for these categories will be presented to students according to their classification. Finally, a number of participants who did exceptionally well will be presented the K<sub>3</sub>M Top Scorer Award for the year and be invited to Malam Kimia & IKM Awards Presentations to receive the K<sub>3</sub>M Top Scorer Award Certificate and a cash award.

Some of these top scorers will be selected for training in University of Malaya to prepare them for the International Chemistry Olympiad (ICHO).

### From 2002 to 2022

So, over the last 21 years, we have achieved a lot in getting students to be interested in chemistry. We also believed that K<sub>3</sub>M has influenced a large number of them to take up chemistry at the university level and possibly go even higher for postgraduate programmes in chemistry. Many of them may even end up with a career in chemistry.

We would like to give credits to a number of people who have contributed so much to this development of K<sub>3</sub>M in Malaysia. First is Prof Dato' ChM Dr Mohd Jamil Maah who serves as the Chairman of the K<sub>3</sub>M Technical Committee right from the beginning in 2002. Then we have Datin ChM Dr Ng Soo Boon and ChM Dr Saadah Masrukin who were also with us right from the beginning in 2002. Datin ChM Dr Ng is the Coordinator of the A Level programme and ChM Dr Saadah is the Coordinator of the O Level programme. Many of the K<sub>3</sub>M Technical Committee members have served in the Committee for more than 10 years. The Members of the K<sub>3</sub>M Technical Committee for 2020 – 2022 are as follows:





### K<sub>3</sub>M Technical Committee (2020 – 2022)

Prof Dato' ChM Dr Mohd Jamil Maah -Chairman  
 Datin ChM Dr Ng Soo Boon -Coordinator(A Level)  
 Datuk ChM Dr Soon Ting Kueh-Member (A Level)  
 Datin ChM Dr Zuriati Zakaria -Member (A Level)  
 Prof ChM Dr Mansor Ahmad -Member (A Level)  
 Prof Dr Sharifuddin M Zain -Member (A Level)  
 Assoc. Prof ChM Dr Ng Chew Hee-Member (A Level)  
 ChM Dr Ng Kim Hooi -Member (A Level)  
 Madam Ong Poh Tin -Member (A Level)  
 Mr Tan Sze Chuan -Member (A & O Levels)  
 ChM Dr Sa'adah Masrukin -Coordinator (O Level)  
 Mr Yau Kim Tan -Member (O Level)  
 ChM Li Hui Ling -Member (O Level)  
 Madam Wong Choy Wan -Member (O Level)  
 Mr Lim Kuok Chen -Member (O Level)  
 Puan Suziyana Hassim -Member (O Level)  
 Madam Chong Pei Si -Member (O Level)  
 Madam Lee Saw Im -Member (O Level)

We would also like to record our sincere appreciation to the Ministry of Education Malaysia for their support of K<sub>3</sub>M since its inception in 2002.

Our sincere gratitude and appreciation also go to two IKM Secretariat staff, Puan Aliah Nur Fatehah and Cik Nurul Idayu Suhana who have been long serving the K<sub>3</sub>M Technical Committee.

### Celebrating 21 Years of Excellence in Chemistry

In 2022, we have decided to celebrate 21 years of

K<sub>3</sub>M with the theme of “**Celebrating 21 Years of Excellence in Chemistry Education**”. The Celebrations will comprise a souvenir publication, a grand dinner and recognition of those who have contributed to the success of K<sub>3</sub>M over the last 21 years.

A souvenir publication with the title of “**Celebrating 21 Years of Excellence in Chemistry**” will be published on the day of K<sub>3</sub>M 2022, 29th September 2022. A grand dinner will be held on the 30th September 2022 where certificates of appreciation and special souvenirs will be presented to members of the K<sub>3</sub>M Technical Committee.

### K<sub>3</sub>M 2022 and beyond

After two years of the Covid-19 pandemic, we believe that our country is already back to normal in 2022. In fact, for K<sub>3</sub>M 2022, we have 35,977 participants taking part. This shows that K<sub>3</sub>M is back on track. In the years to come, K<sub>3</sub>M will become even more popular with Malaysian students and continue to promote chemistry education and popularising of chemistry in Malaysia.

A Report by:

**Datuk ChM Dr Soon Ting Kueh**  
 K<sub>3</sub>M Founder & IKM President

Date: 9th September 2022



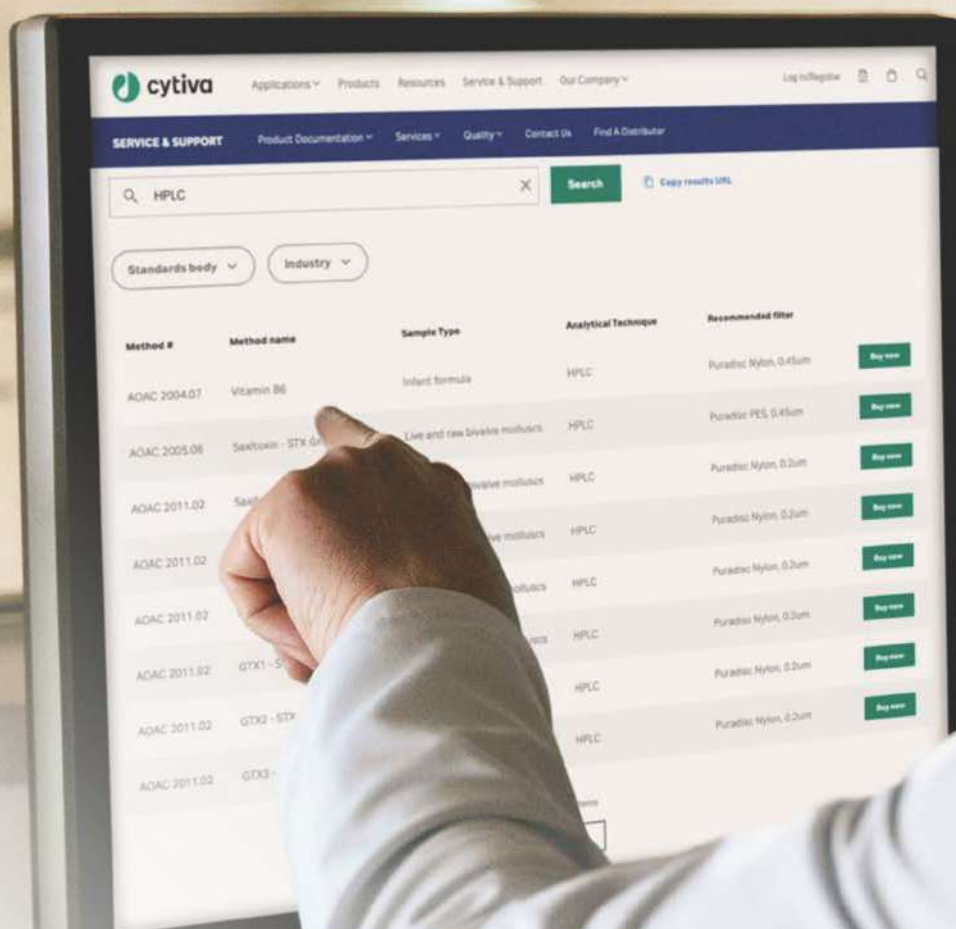


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The Thermo Scientific™ AccelerOme™ automated sample preparation platform with the Thermo Fisher Scientific™ AccelerOme™ sample preparation kit

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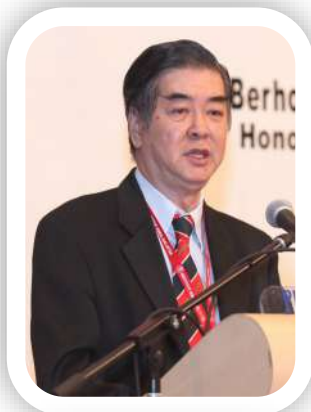
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IKM President, **Datuk ChM Dr Soon Ting Kueh**, was elected as the Chairman, Board of Directors at the 182th KISM Sdn Bhd meeting on 13 August 2022. Datuk ChM Dr Soon was also elected as an Executive Board Member for Commonwealth Chemistry on 8 April 2022 and conferred the BIM Lifetime Achievement Award during the 49th AGM of Balai Ikhtisas Malaysia on 27 July 2022. At the 21st AGM of the National Council of Senior Citizens Organizations Malaysia (NACSCOM) on 25 June 2022, Datuk ChM Dr Soon was elected as the President of NACSCOM for 2022-2024.



IKM Vice President, **Datin ChM Dr Zuriati Zakaria**, was elected as the Vice President of Council of Asian Scientific Editors on 26 July 2022. At the 21st AGM of the National Council of Senior Citizens Organizations Malaysia (NACSCOM) on 25 June 2022, Datin ChM Dr Zuriati was elected as the Honorary Secretary General of NACSCOM for 2022-2024.



IKM Hon. Assistant Secretary, **Associate Professor ChM Dr Juan Joon Ching**, was elected as the Deputy President of Balai Ikhtisas Malaysia (BIM) for 2022-2023 during the 49th Annual General Meeting of BIM on 27 July 2022.



IKM Council Member, **Professor ChM Dr Mansor Ahmad**, was elected as the President of the Malaysian Scientific Association for 2022-2024 at the 67th Annual General Meeting of the Malaysian Scientific Association on 2 July 2022.



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- Benefits and limitations of using hydrogen versus helium
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- Innovative solutions that can be expected in GC in the future

The experts for this forum are Dr. Daniela Cavagnino and Mr. Ian Parry of Thermo Fisher Scientific, and Dr. Ed Connor of Peak Scientific.

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- dramatically reduce helium consumption
- save costs by maintaining your validated methods unchanged
- eliminate hydrogen safety concerns and additional cost of H<sub>2</sub> sensor installation when H<sub>2</sub> is used as carrier gas

Laboratory professionals in Malaysia can better manage gas consumption with the HeSaver-H2Safer technology available on the Thermo Scientific TRACE 1600 Series Gas Chromatograph.

Watch the video here:



### Technical Note: Addressing gas conservation challenges when using helium or hydrogen as GC carrier gas

With the introduction of the Thermo Scientific TRACE 1600 Series Gas Chromatograph (GC), the new Thermo Scientific HeSaver-H2 Safer technology offers an innovative and smart approach to dramatically reduce helium consumption.

This technology has been further improved for:

- Usability: a standard iConnect SSL injector can be easily self-upgraded to HeSaver-H2Safer functionality.
- Hydrogen Safer mode: this technology has been extended to the use of hydrogen as carrier, limiting its maximum flow rate and removing the associated safety risks, eliminating the need to install a sensor in the GC oven.

Learn more from this technical note which illustrates the new HeSaver-H2Safer technology, how it works, and the benefits delivered to GC users.



Download the technical article here:







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**ICPAC 2022**  
KOTA KINABALU

22nd - 27th  
November  
2022

# International Congress on Pure & Applied Chemistry Kota Kinabalu, Sabah, Malaysia

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# International Congress on Pure & Applied Chemistry (ICPAC) Kota Kinabalu 2022

Institut Kimia Malaysia (IKM), together with Universiti Malaysia Sabah (UMS), the Foundation for Interaction between Science and Technology (FIST) Japan and Asia Chem Corporation (ACC) Japan are jointly organising the International Congress on Pure & Applied Chemistry (ICPAC) Kota Kinabalu 2022 from 22nd - 27th November 2022 at the Magellan Sutera Resort, Kota Kinabalu, Sabah, Malaysia. ICPAC KK 2022 is the fifth of a series of major international scientific meeting covering all areas of pure and applied chemistry including specific themed symposia. The theme, **"Chemistry & Chemical Innovations for Sustainable Development in Rapidly-Emerging Economies"**, means that the Congress will focus on advancing chemistry for meeting the UN Sustainable Development Goals 2030. ICPAC KK 2022 will comprise the following General Session and Symposia:

ICPAC KK 2022 General Session (IGS)
Symposium on Organic and Biomolecular Chemistry (OBC)
Symposium on Inorganic and Coordination Chemistry (ICC)
Symposium on Physical Chemistry and Catalysis (PCC)
Symposium on Analytical and Environmental Chemistry & Engineering (AEC)
Symposium on Polymer and Materials Chemistry (PMC)
International Symposium on Advanced Polymeric Materials 2022 (ISAPM 2022)
20th Malaysian International Chemistry Congress 2022 (20MICC)

## REGISTRATION FEE AND PAYMENT

Those interested to participate or make oral or poster presentation are required to register at the ICPAC KK 2022 website: <https://icpackk2022.org/>. Please complete the REGISTRATION FORM and together with the Registration Fee, submit to the ICPAC KK 2022 Secretariat online. Only those who have paid their Registration Fees are considered as delegates to ICPAC KK 2022.

Participants	Type of Registration	Early Bird (before or on 31st August 2022)	Regular (from 1st September 2022)
International Participants (Non-IKM Members)	International Participants	USD750	USD850
	Postgraduates Students (Overseas)	USD500	USD600
Congress Banquet (additional guest)		USD100	USD100
Tour (additional guest)		USD80	USD80

The deadline for Early-Bird Registration is **31st August 2022**. Registration fee entitles the ICPAC KK 2022 delegates to the following: attendance at all ICPAC KK 2022 scientific sessions, complimentary tour & banquet and all ICPAC KK 2022 documents and materials.

## ACCOMMODATION

### Congress Hotel - The Magellan Sutera Resort

1 Sutera Harbour Boulevard, Sutera Harbour, 88100 Kota Kinabalu, Sabah, Malaysia

T: +608 8318888 E: [reservations@suteraharbour.com.my](mailto:reservations@suteraharbour.com.my)

Room reservation link: <https://icpackk2022.org/accommodation.php>

## MORE INFORMATION / CONTACT US

ICPAC KK 2022 Secretariat c/o Institut Kimia Malaysia

127B, Jalan Aminuddin Baki, Taman Tun Dr Ismail, 60000 Kuala Lumpur, Malaysia

Telephone: +603-77283272 / +603-77283858 / +603-77269029 Fax: +603-77289909

Email: [secretariat@icpackk2022.org](mailto:secretariat@icpackk2022.org) website: <https://icpackk2022.org>

## IKM New Members & Membership Upgrading

NEW MEMBERS (MMIC)	Nor Fadilah binti Chayed M/6097/9770/22	Sutera binti Tahir M/6075/9724/22	Nazirah Binti Razali L/3255/9716/22
Alia Diyanah binti Alwi M/6103/9780/22	Nor Halimah Binti Abd Talib M/6078/9727/22	Syazana Ameera Binti Syed Amri M/6087/9743/22	Ng Yen Ling L/3282/9796/22
Amelia Chiang Kar Mun M/6099/9774/22	Noramin bin Mohd Nor M/6074/9723/22	Wan Faraizati Binti Wan Ismail M/6109/9791/22	Nor Hafiza binti Ishak L/3285/9802/22
Azira binti Azahidi, Dr. M/6084/9738/22	Normastura Binti Abdul Ghani @ Mohd Zahid M/6121/9810/22	Wan Zurina binti Samad, Dr. M/6102/9778/22	Norzaimi bin Harun L/3253/9539/22
Azrul Nurfaiz Bin Mohd Faizal M/6083/9737/22	Norsyahida Binti Rahim M/6105/9786/22	Zatil Afifah Binti Omar M/6088/9746/22	Nurfarhana Binti Shukri L/3277/9776/22
Badariah binti Abdul Rawi M/6114/9799/22	Nur Adilla binti Zulkipli M/6115/9801/22	<b>NEW LICENTIATES (LMIC)</b>	Nurliana binti Zalzaifulkhafiz L/3265/9750/22
Biltiah binti Ubil M/6119/9807/22	Nur Ezzati binti Zambri M/6113/9798/22		Phua Chee Seong L/3280/9785/22
Chou Kian Weng, Dr. M/6116/9803/22	Nur Hasanah binti Mohd Jumali @ Mohd Yusop M/6085/9740/22	Arina Hidayah binti Irhamni L/3271/9759/22	Puteri Adelene Syazwina Binti Norzaimi L/3270/9758/22
Christopher Shang Che Hau M/6112/9795/22	Nur Raudhah binti Misbah M/6089/9751/22	Chia Kah Min L/3262/9742/22	Rasyiqah binti Abdul Rani L/3284/9800/22
Coswald Stephen Sipaut @ Mohd Nasri, Prof. Dr. M/6096/9769/22	Nurhazimah binti Zulkarnain M/6122/9811/22	Eugene Loh Ying Xian L/3289/9815/22	Shazrul Hasry bin Shamsudin L/3290/9818/22
Farah Fatin Binti Ab Rahman M/6108/9790/22	Nurul Syifa' binti Lotfiamir M/6076/9725/22	Farah Izyan binti Abdul Aziz L/3283/9797/22	Siti Nor Amalina binti Mohd Akhir L/3267/9753/22
Farah Syazwani binti Rasdi M/6118/9805/22	Ong Jing Yi M/6093/9764/22	Hairiyatul Aliyah binti Abdul Rahim L/3269/9756/22	Teng Siaw Lin L/3260/9733/22
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Hashazirah Binti Mohamad Hassan M/6091/9760/22	Rubia binti Idris, Dr. M/6107/9788/22	Ku Cui Lyn, Emeline L/3281/9789/22	Yeoh Zheng Yue L/3286/9809/22
Irain Binte Bahari M/6072/9721/22	Sazlinda binti Kamaruzaman, Dr. M/6069/9715/22	Lim Soo Tian L/3274/9765/22	Zulfadzli bin Hod L/3266/9752/22
Joanne Sonia binti Stanely M/6110/9792/22	Shahrin Nizam Bin Mustafa M/6066/9712/22	Liyana Salwa binti Mohd Nazir L/3276/9773/22	<b>UPGRADE TO MEMBER (MMIC)</b>
Kairunisha binti Abd. Rajan M/6073/9722/22	Sharifah Nadzirah binti Wan Hamid M/6077/9726/22	Maegan Lee Xin En L/3254/9573/22	
Khairunnisa binti Embi M/6090/9755/22	Siti Amira binti Mat Hussin, Dr. M/6104/9784/22	Mohamad Hafiz bin Mohd Rizwan L/3263/9744/22	Ahmad Shuhairil bin Abd Shukor M/6128/7077/15/22
Mohamad Shariff bin Shahrman Subarmaniam M/6100/9775/22	Siti Azura binti Abdul Wahap M/6120/9808/22	Mohamad Khir Syafiq bin Moktar L/3278/9779/22	Chong Jun Fang M/6130/8183/18/22
Mohd. Salman bin Mohd Razali M/6067/9713/22	Siti Faieza binti Abd Hadi M/6092/9761/22	Mohd Dzulkiply Bin Spawi L/3264/9748/22	Hazim Syahmi bin Elias M/6131/7336/16/22
Muhamad Ashari bin Hashim M/6101/9777/22	Siti Fatimah Binti Mohd Najib M/6065/9711/22	Muhamad Adib Aizuddin bin Shafie L/3287/9813/22	Ili Farhana binti Noor Azam M/6129/8375/19/22
Muhamad Syafiq Bin Mohd Nor M/6117/9804/22	Siti Maryam Binti Jasman, Dr. M/6071/9720/22	Muhamad Akif Aizuddin bin Jasni L/3259/9732/22	Lee Eng Haw M/6125/7425/16/22
Muhammad Hakim bin Shafie, Dr. M/6098/9772/22	Siti Nur Hajar Binti Idris M/6081/9734/22	Muhammad Amirul Hisham bin Muhammad Aini @ Ahmad L/3272/9762/22	Muhamad Zaki bin Ibrahim M/6127/7602/17/22
Muhammad Izzat Harith bin Nordin M/6106/9787/22	Siti Rasyidah binti Sapie M/6123/9812/22	Muhammad Aniq Imran bin Rosli L/3279/9783/22	Muhammad Mursyid bin Mazlan M/6126/8185/18/22
Muhammad Zamir Bin Othman, Dr. M/6068/9714/22	Son Ee Woon M/6124/9817/22	Muhammad Azza bin Mustafa L/3275/9767/22	<b>UPGRADE TO FELLOW (FMIC)</b>
Naizah binti Zakaria M/6070/9717/22	Soo Quai Siang, Kelvin M/6082/9735/22	Muhammad Hakimi bin Senun L/3273/9763/22	
Noorsha Binti Shahdan M/6086/9741/22	Suhaila binti Sapari, Dr. M/6094/9766/22	Nabilakmal bin Nazreen Elangko L/3268/9754/22	



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### PRESENTED BY TIFFANY GABRIEL



Tiffany is an experienced LIMS professional, having worked as a consultant, business analyst and now as a sales executive, responsible for new sales and account management for LabWare. She has over 17 years of experience implementing LIMS technology solutions across multiple platforms. After receiving her Bachelor of Science (Chemistry), Tiffany joined a generics pharmaceutical manufacturer, as a QA/QC Chemist and was responsible for implementing LabWare LIMS into their laboratory. After six years administrating the LabWare system, Tiffany progressed in her career by transitioning to a consultant role for an enterprise LIMS vendor. Her cross-functional experience has been the key to her success in sales, allowing her to understand the entire LIMS implementation cycle ensuring the success of her clients' projects.

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