

IE Insight



FOREWORD



*Hjh Masriatul Zuraifah Hj
Sajali
(Industry Liaison Officer
OAVCIE)*

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

I am greatly honored to write the foreword for the first newsletter issue of the Office of Assistant Vice Chancellor Innovation and Enterprise (OAVCIE) for the year 2021.

As a newly appointed Industry Liaison Officer for OAVCIE, I can see that OAVCIE is working tirelessly and making efforts on achieving the university's vision to become a university of innovation and enterprise, and university's mission to nurture innovation and translate to enterprise. These can be seen through the various activities, collaboration and programs that are held inside and outside UBD with various industries and other government sectors.

For the past months, OAVCIE had actively engaged with industries such as Brunei Shell Petroleum (BSP), Brunei Methanol (BMC) Sdn.Bhd. and

Imagine Sdn. Bhd., discussing on potential collaborations in various areas such as Corporate Social Responsibility (CSR), Research and Innovation, and Training.

In addition, students from Discovery Year Incubation program of Entrepreneurship Village (EV) OAVCIE took part in Masterclass: Design Thinking workshop organized by BSP LiveWIRE, with an aim of helping students to build up innovative and creative ideas. These students also participated in online entrepreneurship course called Winter Beyond Borders ASIAN International Mobility For Students (AIMS) by Sookmyung Women's University, South Korea.

With these efforts, support and commitment from the OAVCIE member and students, we look forward for a productive and fruitful 2021.

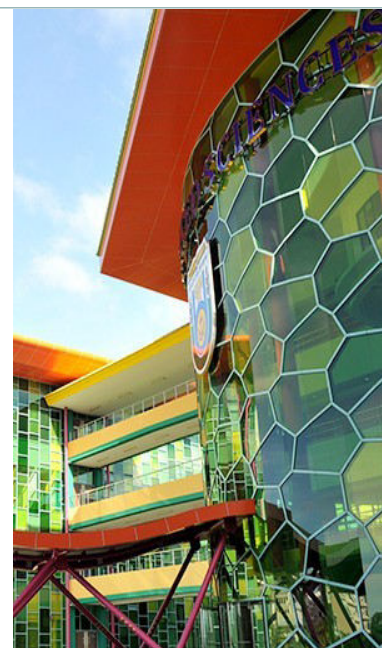
Thank you,

Hjh Masriatul Zuraifah Hj Sajali

OAVCIE STAFF CHANGES

In early January 2021, we welcomed Hjh Masriatul Zuraifah Hj Sajali as a new Industry Liaison Officer for the Office of Assistant Vice Chancellor Innovation and Enterprise (OAVCIE). In the same month, we welcomed three interns from Politeknik Brunei: Mohammad Nur'Hayyan Hibatullah bin Rosofian, Muhamad Azizul Ezaddin bin Julime and Wafiy Anak Suhimi, who be doing their internship with our office until end of June 2021.

We also said farewell to our Senior Patent Manager, Dr Nagender Aneja, who had been with our office since the inception of Innovation and Enterprise office, to join the School of Digital Science, Faculty of Science, UBD. Our office would like to record its appreciation for his long service with the office. We wish Dr Nagender Aneja the best for his future, and a very good luck for a bright and prosperous future.




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OFFICE OF ASSISTANT VICE CHANCELLOR INNOVATION AND ENTERPRISE

The Office of Assistant Vice-Chancellor Innovation and Enterprise (OAVCIE) was formed in 2017; to assist in UBD's transformation into a university of innovation and enterprise.

The office's functions include Educations on Intellectual Property Rights (IPRs), Entrepreneurship, Patent Management, Marketing and Licensing, Business development and assistance for Start-ups as well as Industry Outreach. OAVCIE also oversees UBD Innovation Wharf and Prototype Development Unit, and is responsible for consultancies and services within UBD as the UBD's focal point of contact with industries.

 <https://innovation.ubd.edu.bn>
 [ubd_ie](#)
 [ev.ubd](#)

EV-UBD STUDENTS PARTICIPATING IN WINTER BEYOND BORDERS ASIAN INTERNATIONAL MOBILITY FOR STUDENTS (AIMS) BY SOOKMYUNG WOMEN'S UNIVERSITY, SOUTH KOREA

BY NURUL AQILAH BINTI HJ MUZANI AND WAFY ANAK SUHIMI



Winter Beyond Borders AIMS Online Live Lecture.

The Entrepreneurship Village (EV), as part of the Office Assistant Vice Chancellor Innovation and Enterprise (OAVCIE) was invited by Sookmyung Women's University from the Republic of South Korea to participate in their online entrepreneurship course called Winter Beyond Border Asian International Mobility for Students (AIMS) Program: Global Business and Entrepreneurship in Korea and ASEAN. From 18th January to 25th January 2021, 30 students from the Discovery Year (DY) Incubation program of EV joined the AIMS program. The program lasted for 5 days and consisted of online live lectures, video lectures and ended with group presentations.

The AIMS program is a multilateral and collaborative student exchange program, which involves both higher education and government institutions [enchant student mobility] in Southeast Asia and beyond. Despite the pandemic still spreading around the world, making the students unable to travel for their Discovery Year, Sookmyung Women's University were able to make the AIMS program convenient and engaging through a series of Online Lectures with the help of Zoom Meetings.

In the course of their learning, students of the DY Incubation were given the opportunity to have a better understanding on internalization strategies of South Korean companies, who are known for their adverse reach of audience on a global scale through culture and technology advancement. It is hoped that with this collaboration both UBD and SookMyung Women's University can continue to interchangeably share knowledge and experience that benefit the students' mindset.

LIVEWIRE MASTERCLASS FOR EV DISCOVERY YEAR (DY) INCUBATION COHORT JANUARY 2021

BY NURUL AQILAH BINTI HJ MUZANI AND WAFY ANAK SUHIMI

On the 8th of February, the Entrepreneurship Village (EV), as part of the Office Assistant Vice Chancellor Innovation and Enterprise (OAVCIE) took part in a Masterclass: Design Thinking workshop conducted by BSP LiveWIRE, with an aim for the participants to build up innovative and creative ideas.

43 students from the Discovery Year (DY) Incubation program of EV had the opportunity to take part in that workshop, which took place at the EV. This Masterclass was the second masterclass conducted by BSP LiveWIRE for EV.

LiveWIRE Masterclass: Design Thinking is one out of the seven focus masterclasses provided by BSP LiveWIRE; an entry level and friendly workshop for entrepreneurs by redefining problems with innovative solutions through iterative processes. With the methods as well as application on real case scenarios through activities, the participants were given a great foundation to pursue their entrepreneurship and innovative ideas.

With the workshop, it is hoped that the 43 students of DY Incubation are able to be think critically in addressing problems, be able to identify possible hurdles and solve them comprehensively, and apply the practices and knowledge they have gained from the workshop to further develop their skills in their journey as a student entrepreneur of UBD. With the collaboration between BSP LiveWIRE and EV, it is envisaged that the Masterclass with be able expand the nation's entrepreneurship ecosystem.



Students from Discovery Year Incubation program Presentation.

INDUSTRY ENGAGEMENT MEETING WITH IMAGINE SDN BHD

BY HARRIS AR-RAFI BIN MOHD ZAINI AND DYG HASNAH BINTI AWG HAJI HASSAN



Group Photo with Representative from Imagine.

On 17th March 2021, the Office of Assistant Vice Chancellor (Innovation & Enterprise) visited Imagine Sdn. Bhd. From Universiti Brunei Darussalam, the meeting was attended by Prof. Dr. Mohd. Ayub Sadiq @ Lin Naing, Assistant Vice Chancellor (Innovation and Enterprise), Hasnah binti Haji Hassan, Patent Officer and Harris Ar Rafi Mohd Zaini, Assistant Registrar of the Office of Assistant Vice Chancellor (Innovation and Enterprise), whilst representing Imagine Sdn. Bhd was Mr. Omardani bin Yusof, General Manager and Head of Corporate Project Management Office and Ms. Siti Hajar Mahathir, Corporate Affairs Manager. The engagement meeting saw two institutions discussing on potential collaboration especially in the areas of long term Corporate Social Responsibility (CSR), Research & Innovation and Training. Through the discussion, it is hoped that both institution would be able to closely work together in helping the community and country in the relevant areas, especially in relation to technology and telecommunications.

Through their rebranding from Telbru to imagine in 2019, Imagine Sdn. Bhd. at present offers various services to consumers and enterprise sectors with its mainstay being high speed broadband and telephone services over fibre optics infrastructure. Imagine Sdn. Bhd. has also been actively doing CSR in various areas such as Education; Women and Children; Underprivileged and Mental and Physical wellness.

SITE VISIT AND POTENTIAL RESEARCH COLLABORATION MEETING AT BRUNEI METHANOL COMPANY (BMC) SDN. BHD.

BY HARRIS AR-RAFI BIN MOHD ZAINI

On 22nd March 2021, officers from the Office of Assistant Vice Chancellor (Innovation and Enterprise) and Centre for Advanced Material Research (CAMES), UBD, conducted a site visit at Brunei Methanol Company's plant. Leading the team from UBD was Prof. Dr. Mohd. Ayub Sadiq @ Lin Naing, Assistant Vice Chancellor (Innovation and Enterprise) and Dr Jimmy Lim Chee Ming, Director of CAMES, whilst representing BMC was Afq Junaidi, Operations Engineer. This visit was a follow-up to previous visit by BMC to CAMES in February 2021. After touring the BMC plant, both parties discussed various potential research collaboration especially in the area of Smart Coating.

Brunei Methanol Company was established in 2006 with an objective of developing Brunei's first Methanol manufacturing and exporting plant, in accordance with the aspirations of the Government of His Majesty the Sultan and Yang Di-Pertuan of Brunei Darussalam towards the diversification of the country's economy and the development of the downstream industries from oil and gas resources. The company has a nameplate capacity of 2,500 metric tons per day of Federal Grade AA Methanol which is a key product for the chemical and petrochemical industry in the production of Acetic Acid (solvents), MTBE (octane enhancer), Formaldehyde (resins, adhesives) and others. Annually the plant is targeted to produce at least 850,000 metric tons of product methanol for export.



Group Photo with Representative from Brunei Methanol Company (BMC).

BRUNEI SHELL PETROLEUM SDN. BHD. DECOMMISSIONING AND RESTORATION ENGAGEMENT

BY HJH MASRIATOL ZURAIFAH HJ SAJALI AND MUHAMMAD AZIZUL EZZADDIN BIN JULIME.

On 31st March 2021, the Brunei Shell Petroleum (BSP) Decommissioning and Restoration (D&R) team visited UBD to meet with researchers and staff of the Office of Assistant Vice Chancellor Innovation and Enterprise (OAVCIE). Hj. Idris bin Hj. Jaafar, D&R Manager lead the team from BSP, with Pg. Dr. Emeroylarffion bin Abas, Director of Innovation and Enterprise, OAVICE, present to welcome BSP D&R team.

The session titled "BSP Decommissioning and Restoration (D&R) Higher Education Collaboration: Subsurface Abandonment – Isolation Strategy" was held at the Office of Assistant Vice Chancellor, Innovation and Enterprise.

The aim of the meeting was to explore potential industrial researches between BSP and UBD. Some of the proposed projects by BSP-DNR team include cap-rock identification, reservoir pressure prediction, and statistical analysis for well cement quality prediction.



Meeting between UBD and BSP on exploring potential industrial researches.

HUMANITARIAN AND EMERGENCY LOGISTICS EXPO (HELIX) 2021

BY HJH MASRIATOL ZURAIFAH HJ SAJALI AND MUHAMMAD AZIZUL EZZADDIN BIN JULIME

The Office of Assistant Vice Chancellor Innovation and Enterprise (OAVCIE) facilitated staffs and students of UBD to join the AUN-UIE Humanitarian and Emergency Logistics Expo (HELIX) 2021, a joint event organized by AHA Centre and the Viet Nam Disaster Management Authority (VNDMA), supported by the Government of Japan as part of the Disaster Emergency Logistics System for ASEAN (DELSA) Project under the Japan-ASEAN Integration Fund, which will be held virtually on 20-25 May 2021.

The aim of the Expo is to recognize the needs and challenges in humanitarian logistics among National Disaster Management Organizations and ASEAN, as well as to investigate how the most recent developments in the logistics supply chain can help to address those challenges. This Expo also provides a forum for networking and discussion among humanitarian logistics practitioners, vendors and suppliers, academics, professionals, and students in the region.

To engage the youth, the Expo competitions aimed at ASEAN students and youth, namely:

- (i) iPitch, an innovation pitching competition in which participants present their creative ideas/solutions to solve current/emerging problems in humanitarian logistics; and
- (ii) AHAckathon, is a two-day hackathon competition in which youths compete to solve a humanitarian logistics problem by creating web applications.

Winners of the iPitch and AHAckaton will be given a chance to go to Singapore and Indonesia for the learning events, tentatively in 2022.

The central place to access all information about HELIX is available at www.helix.ahacentre.org



HELIX Poster.

UBD AND IMAGINE SDN BHD CSR BRAINSTORMING SESSION

BY HARRIS AR-RAFI BIN MOHD ZAINI

On the 31st March 2021, the Office of Assistant Vice Chancellor Innovation and Enterprise (OAVCIE) organized a brainstorming session among UBD academics from various faculties, as well as Imagine Sdn Bhd (IMAGINE). Attending the session were Siti Hajar Mahathir, Corporate Affairs Manager from IMAGINE and Prof Dr Mohd Ayub Sadiq @ Lin Naing, Assistant Vice Chancellor (Innovation and Enterprise).

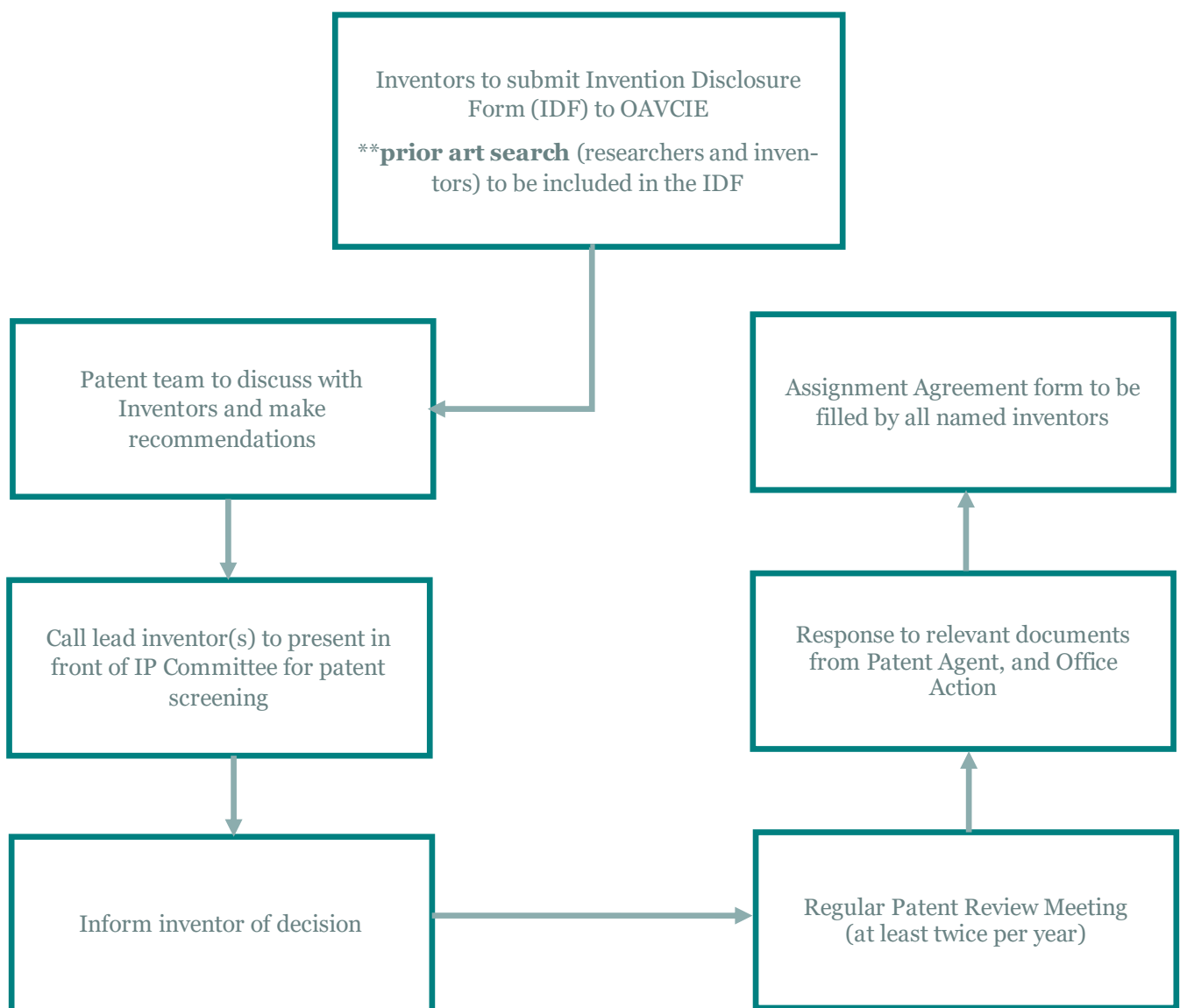
The brainstorming session focused on discussing different potential collaborative Corporate Social Responsibility (CSR) long term projects between IMAGINE and UBD; focusing on 4 main themes: Education, Women & Children, Underprivileged and Physical & Mental wellness. During the session, the participants discussed and presented their ideas, including proposals in creating a Community Centre, Training Centre and Mobile Clinic to name a few. It is hoped through the brainstorming session, different joint CSR projects between Imagine and UBD can be realized, and hereby cementing the relationship between UBD and Imagine.

IMAGINE is a local telecommunications company which was rebranded from TelBru in 2002. They offer services in high speed broadband and telephone services over fiber optics infrastructure where most of their clients are from both private and government sectors.



A Brainstorming Session among UBD academics from various faculties and Imagine Sdn Bhd (IMAGINE).

PATENT EDUCATION: PROCEDURES FOR INVENTOR ON FILING A PATENT AT UBD

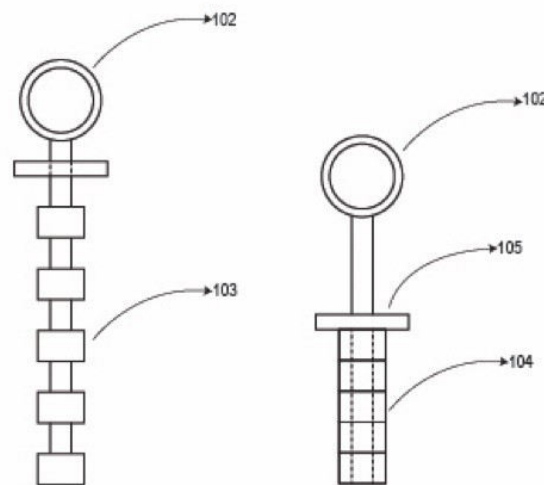




UBD PATENT

U45: SOCKET SAFETY COVER OPENING DEVICE

Power plugs and sockets are devices that allow electrically operated equipment to be connected to the primary alternating current (AC or DC) power supply in a building. Electrical plugs and sockets differ in voltage and current rating, shape, size and type of connectors. Generally, the plug is the movable connector attached to an electrically operated device's mains cable, and the socket is fixed on equipment or a building structure and connected to an energised electrical circuit. Sockets are designed to prevent exposure of bare energised contacts, however, it may also have protruding exposed contacts, with these used exclusively for earthing (grounding).



Globally, the most common socket incorporates a safety system having blocking shutter or safety cover, which opens when a user insert or push a 3-Pin plug with three protruding pins. The shutter basically opens when a user pushes the shutter present at the earth aperture, which is configured to simultaneously open the shutters of live and neutral apertures of the socket. However, problems may arise when inserting a 2-Pin plug with two protruding pins to a common electrical socket with at least three apertures.

The present invention aims to provide a device for opening safety cover of an electrical socket having at least three apertures. The device comprising a flexible rod drawn in the form of bellows compresses to take the shape of a rigid rod. The rod can be pushed into safety cover to open the aperture and decompresses to take the shape of the flexible rod to pull out from the aperture to close the aperture by the safety cover.

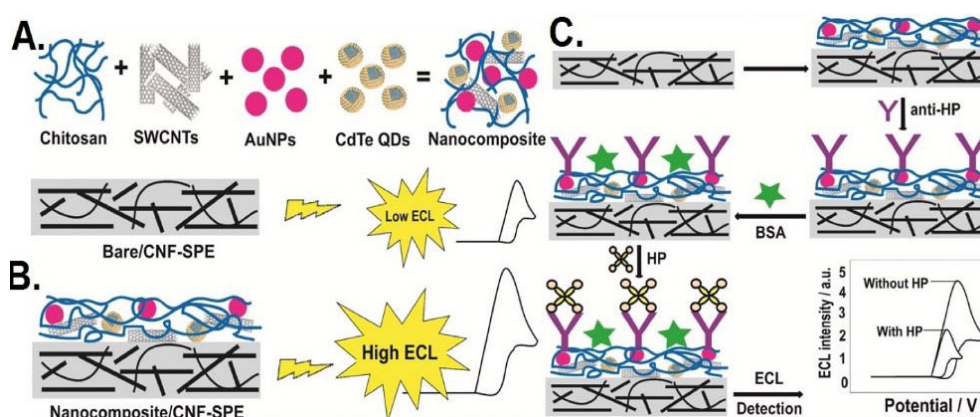
More Information:- <https://innovation.ubd.edu.bn/innovation/patents/u45-socket-safety-cover-opening-device/>



UBD PATENT

U64: ELECTROCHEMILUMINESCENCE IMMUNOSENSOR FOR DETECTING HAPTOGLOBIN (HP)

The present invention discloses an electrochemical immunosensor (ECL), configured for detecting Haptoglobin in biological samples. The immunosensor includes nanocomposite of gold nanoparticles, single-walled carbon nanotubes, quantum dots, and chitosan. Alternatively, the immunosensor can also be used for the ECL based detection of other biomarkers and biomolecules, such as Immunoglobulin A and dopamine.



Haptoglobin (Hp) is a serum α_2 -glycoprotein of approximately 100 kDa. It exists as a tetramer, comprising two smaller identical α -chains and two larger identical β -chains. The α -chains are linked to each other by a disulphide bond, and each β -chain is similarly linked to an α -chain. Hp plays an important part in binding and transporting of hemoglobin. Plasma concentration of Hp may increase several folds in carcinoma, tissue necrosis, coronary artery, schizophrenia and in the event of an inflammatory stimulus such as infection, injury or malignancy, whether local (vascular) or systemic (extravascular). On the other hand, there may be a low amount of Hp in plasma in some diseases such as intravascular hemolysis, anemia, malaria, liver disease, jaundice, cirrhosis, mononucleosis and transfusion of incompatible blood.

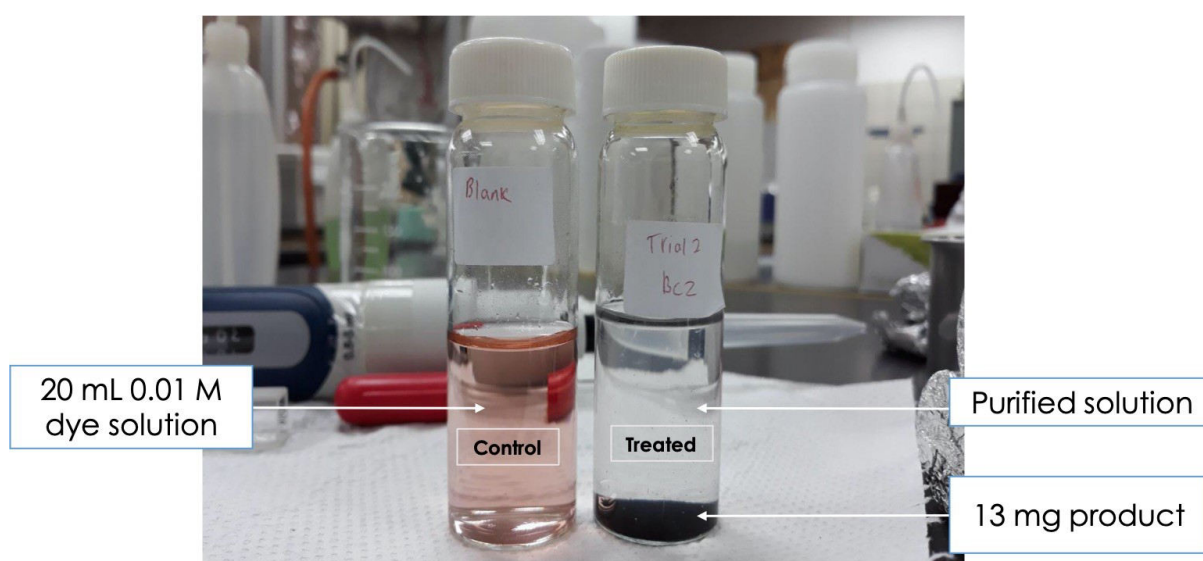
More information: --

<https://innovation.ubd.edu.bn/innovation/patents/u64-electrochemiluminescence-immunosensor-for-detecting-haptoglobin-hp/>



UBD PATENT

U68: MODIFIED CHARCOAL FOR SELECTIVE ABSORPTION



The presence of heavy metals such as mercury (Hg), cadmium (Cd), arsenic (As), chromium (Cr), thallium (Tl) and ruthenium (Ru) in wastewater, even in trace quantities, can cause a negative impact on public health. Ruthenium-based dye complexes are widely used in dye-sensitized solar cells (DSSC) to achieve low cost and high-power conversions efficiencies. There has been on-going research on the production and development of the DSSC, and thus remnant of the dyes, for example, ruthenium dye waste as a by-product, may remain in effluents produced in the chemical processing or experimental laboratories. All ruthenium compounds or ions have been identified as highly toxic and carcinogenic material. It can become a major threat to human health when the effluent is discharged to the environment.

The present invention generally relates to a method of making modified bamboo charcoal for selective adsorption of heavy metals. It particularly relates to a method of preparing activated bamboo charcoal for the removal of heavy metals from wastewater or effluents produced in chemical processing. The invention discloses metal coated activated bamboo charcoal to remove heavy metals from wastewater or effluents produced in chemical processing or experimental laboratories.



More information: - <https://innovation.ubd.edu.bn/innovation/patents/u68-modified-charcoal-for-selective-absorption/>



STAFF MEMBERS

Assistant Vice Chancellor (Innovation and Enterprise)

Professor Mohammad Ayub Sadiq @ Lin Naing
ayub.sadiq@ubd.edu.bn

Director (Innovation and Enterprise)

Pg Dr Emeroylariffion Abas
emeroylariffion.abas@ubd.edu.bn

Deputy Director of Innovation and Enterprise, and Head of Entrepreneurship Village and UBD startup Centre

Lim Kok Shien
kokshien.lim@ubd.edu.bn

Assistant Registrar

Harris Ar-Rafi bin Mohd Zaini
harris.zaini@ubd.edu.bn

Clerk

Siti Fauziah binti Haji Kula
Fauziah.kula@ubd.edu.bn

Patent Officer

Dyg Hasnah binti Awg Haji Hassan
hasnah.hassan@ubd.edu.bn

Industry Liaison Officer

Hjh Masriatol Zuraifah binti Hj Sajali
masriatol.sajali@ubd.edu.bn

Project Manager(Entrepreneurship Village)

Nurul Aqilah binti Hj Muzani
Aqilah.muzani@ubd.edu.bn

Assistant Project Officer

Siti Nor Rahmah binti Md Haider Ali
rahmah.ali@ubd.edu.bn

OAVCIE

UNIVERSITI BRUNEI DARUSSALAM

Jalan Tungku Link, Gadong BE1410