

If you are not able to read the email properly, please click [here](#).



Oct 2023



3 Faculty Members Awarded NSFC Excellent Young Scientists Fund 2023

3 CityU young academics from the College of Science (CSCI) have been awarded the Excellent Young Scientists Fund (Hong Kong and Macau) by the National Natural Science Foundation of China (NSFC) for 2023. They are Professor Yukun He, Assistant Professor of Department of Mathematics, Professor Shubo Wang, Associate Professor of Department of Physics, and Professor Zonglong Zhu, Associate Professor of Department of Chemistry. The recognition highlights outstanding research capabilities in their respective fields. Each awardee will receive a funding amount of RMB 2 million. [Read more](#)

News and Achievements



Physics Research Project Won Major Award from Ministry of Education

The study of the medium-range structure of metallic glass developed by a joint research team comprising Professor Xunli Wang, Executive Director of the Hong Kong Institute for Advanced Study and Chair Professor in the Department of Physics at CityU, has been honoured with Second-Class Award in the Natural Science category at the Higher Education Outstanding Scientific Research Output Awards (Science and Technology) 2022 from the Ministry of Education. The research results provide important insights for understanding the glass-forming ability and the nature of amorphous structures.

The team's scientific findings were reported by the National Natural Science Foundation of China on the first page of its website in mid-2017, widely reported by Xinhua News Agency and academic media in China and abroad, and highly regarded by distinguished scholars in the field. [Read more](#)

Cost-effective Solution for Waste Oil Treatment Presented to Media

The "Smart Sponge", developed by Professor Vincent Ko, Professor of Department of Chemistry, and his team, has been presented in the press preview at InnoCarnival 2023. It can be used in aquaculture filtering systems, grease cleaning for household implements, and oil spill cleanup efforts. It can be reused more than 100 times and all chemicals used in enhancing the oil absorbing feature are biodegradable. [Read more](#)



Maths Seminar Delivered at the Hong Kong Science Museum

On 16 Sept, Professor Jon Lo, Associate Professor of Department of Mathematics, was invited by the Hong Kong Science Museum to deliver a public seminar titled "Origami and Mathematics", as part of the seminar series of "Science in the Public Service". Professor Lo introduced the application of Mathematics in origami (paper folding) and live interactive demonstrations were given. [Read more](#)

Physics PhD Students Won Second Place Prize in the "SpinQ Cup"

Jiahao Wu and Quan Fu, two PhD students from Physics, won the Second Place Prize in the open group of the "SpinQ Cup", a nationwide competition about programming quantum computing algorithms in China. Participants needed to complete designated algorithm and circuit design tasks based on the SpinQit quantum programming language. The solutions were then tested by quantum



computing software, and scoring was based on the execution results and quantum algorithm complexity. [Read more](#)



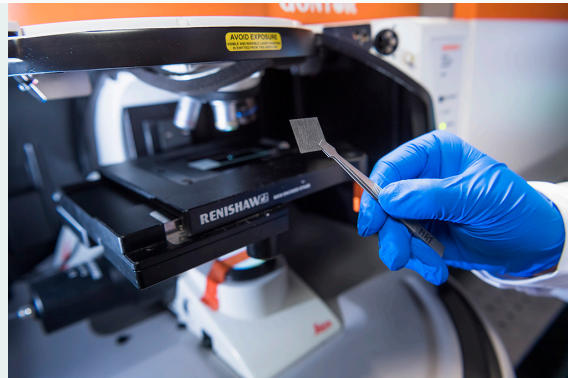
Hong Kong Short-term Patents Granted to Winning Teams of CityU Science Patent Challenge 2022

CityU's Office of the Provost and Deputy President and CSCI co-organised the first "CityU Science Patent Challenge" in 2022/23. The Gold Award-winning team from Diocesan Girls' School and the Silver Award winners from Heep Yunn School and Po Leung Kuk Ngan Po Ling College filed patent applications with professional support from a patent attorney appointed by CSCI. All three inventions successfully obtained Hong Kong short-term patents from the Intellectual Property Department, HKSAR Government. Team representatives were awarded the patent certificates at the press conference hosted by CSCI on 15 Sept. [Read more](#)

Research

Hydrogen Generation Breakthrough Holds Promise for a Clean Future

A research team led by Professor Hua Zhang, Herman Hu Chair Professor of Nanomaterials at Department of Chemistry, has developed an electrocatalyst by using the transition-metal dichalcogenide nanosheets with unconventional crystal phases as supports. The electrocatalyst can enhance the generation of hydrogen significantly through electrochemical water splitting. This important finding has been published in the prestigious journal *Nature*. [Read more](#)

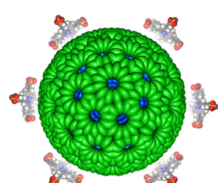


World's First Lithium-ion Battery Technology with Negligible Voltage Decay Developed

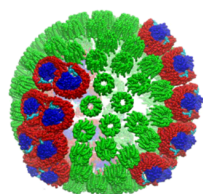
A breakthrough in lithium-ion battery technology has been achieved by a research team led by Professor Yang Ren, Head and Chair Professor of the Department of Physics, and Professor Qi Liu, Associate Professor from the same department. The new development overcomes the persistent challenge of voltage decay and can lead to significantly higher energy storage capacity. [Read more](#)

Novel Photo-oxidation Therapy for Anticancer Treatment

A research team led by Professor Guangyu Zhu in the Department of Chemistry and other scientists has achieved a significant breakthrough by inventing a new class of near-infrared-activated photo-oxidants that can effectively kill cancer cells without requiring oxygen. The findings offer a new strategy, called "photo-oxidation therapy", and provide a promising direction for the development of anti-cancer drugs. [Read more](#)



Artificial photosynthetic system



Natural photosynthetic apparatus of *R. sphaeroides*

New Photocatalytic System Converts Carbon Dioxide to Fuel More Efficiently Than Natural Photosynthesis

A joint research team co-led by Professor Ruquan Ye, Associate Professor in the Department of Chemistry, developed a stable artificial photocatalytic system that is more efficient than natural photosynthesis. The new system mimics a natural chloroplast to convert carbon dioxide in water into methane, a valuable fuel, very efficiently using light. [Read more](#)

Upcoming events

香港城市大學
City University of Hong Kong

CityU
STEAM
Challenges

城大STEAM挑戰者計劃

Last Call for Joining CityU STEAM Challenges 2024

CityU STEAM Challenges 2024, a set of written assessments based on HKDSE curricula specially designed for Form 6 students, is open for application! Students can take English papers on Chemistry, Physics, Compulsory Mathematics, or M1/ M2. Not only provide another chance to estimate HKDSE results, but we will also analyse your performance, preparing you for the HKDSE! Those with outstanding performance will be invited for priority admission interviews by the College of Science, College of Engineering, or School of Energy and Environment! Places are limited, apply online before 10 Nov!

[Read more](#)

CityU Science Patent Challenge 2023-24 Opens for Registration

CityU Science Patent Challenge 2023/24 is now open for registration. All full-time secondary school students can participate individually or form a team of no more than eight participants in the name of their school. The intellectual property workshop was held on 14 Oct. If your team would like to discuss your ideas with our experts, you can register for our online consultation sessions on or

CityU College of Science
香港城市大學
City University of Hong Kong

CityU Office of the Provost and Deputy President
香港城市大學
City University of Hong Kong

PATENTED

CITYU SCIENCE
PATENT CHALLENGE
2023-24

城大科學專利大挑戰

before 8 Dec. Please submit your invention
idea online on or before 29 Dec. [Read more](#)



College of Science, City University of Hong Kong
T: (852) 3442 4567 | E: csci.office@cityu.edu.hk | W: <https://www.cityu.edu.hk/csci>

Copyright (C) 2023 City University of Hong Kong. All rights reserved.

[Unsubscribe](#) if you no longer wish to receive our emails.
