

Newsletter

NO.7

Headlines

- 2022 International Scientific and Techno- logical Innovation Conference on Green Development held in Ningxia
- IHFCA holds first General Assembly and first session of its first Executive Board Meeting in Beijing
- Portal Hypertension & Cirrhosis officially launched as the world's first dedicated English journal on the topic
- 54th International Chemistry Olympiad (IChO 2022) opens in Tianjin

CAST

CAST signs MoU and MRA with the Institution of Engineers of Singapore (IES)



MoU and MRA virtual signing ceremony between CAST and IES

On June 30, 2022, the China Association for Science and Technology (CAST) signed a Memorandum of Understanding (MoU) and a Mutual Recognition Agreement (MRA) with the Institution of Engineers of Singapore (IES) virtually.

The move marked CAST's first bilateral agreement with an important member of the multilateral MRA engineering scheme. It demonstrated IES's recognition of China's engineer competence evaluation system. The MoU paved the way for the two sides to carry out more cooperation in science, technology, and engineering.

2022 International Scientific and Technological Innovation Conference on Green Development held in Ningxia

On July 6, 2022, the 2022 International Scientif-

ic and Technological Innovation Conference on Green Development was held in Yinchuan in China's northwestern Ningxia Hui Autonomous Region. At the conference, participants discussed green low carbon development, and scientific and technological innovation under the theme "sharing green and low-carbon development through cooperation."

Stressing that no single country can successfully tackle climate change and environmental pollution on its own in his speech, Zhang Yuzhuo, Executive Vice President and Chief Executive Secretary of CAST, pledged CAST's support in organizing more enterprise-based alliances in green and low-carbon indus-



tries, fostering more synergy with the international science and technology community, participating more broadly in global climate governance, and building a fair and accountable global climate governance system to facilitate winwin cooperation.

Launch ceremony for the 2022 Summer Internship Program for Hong Kong, Macao, and Taiwan university students held in Beijing

On July 8, 2022, the 2022 Summer Internship Program for Hong Kong, Macao, and Taiwan university students officially kicked off in Beijing. The event, co-sponsored by the China Association for Science and Technology (CAST) and China's Ministry of Education, serves to provide more training and practical opportunities for young people from the three areas. It is celebrating its 20th anniversary this year.

At the launch ceremony, Luo Hui, Director General of the Department of International Cooperation (Hong Kong, Macao, and Taiwan Exchange Office) of CAST, commented on the organization's ongoing efforts to reach out to the science and technology communities and young people in Hong Kong, Macao, and Taiwan. CAST will continue to facilitate access to resources through "China Science Communication," "Innovation China," and "Smart China" service platforms to provide young participants more opportunities in employment and entrepreneurship.



Launch ceremony for the 2022 Summer Internship Program for Hong Kong, Macao, and Taiwan university students held in Beijing

Local associations for science and technology

2022 Lingnan Science Forum opens in Guangzhou



On June 25, 2022, the 4th International Conference on Communications. Information System and **Computer Engineering** (IEEE-CISCE 2022), the first of a series of events planned for the 2022 Lingnan Science Forum, was held in Guangzhou. The participants shared opinions on various topics related to network and information security.

The conference featured various themed sessions on network information security. 5G communications and network, intelligent mobile device design, coding and signal processing, computer, and artificial intelligence. It provided a platform for experts, scholars, engineers, and researchers to share their work and cutting-edge technologies and discuss new trends and research approaches. It also served as a channel for social networking with industry partners to find a practical implementation of academic research.

China-Europe High-Level Forum on Low-Carbon Technologies for Biological Conversion of Agricultural and Forestry Waste held in Zhengzhou



The China-Europe High-level Forum on Low-Carbon Technologies for Biological Conversion of Agricultural and Forestry Wastes

On July 4, 2022, the China-Europe High-level Forum on Low-Carbon Technologies for Biological Conversion of Agricultural and Forestry Waste was held in Zhengzhou, Henan Province. Over 120 experts and industry representatives from China, Italy, the UK, Japan, Germany and other countries attended the forum virtually or in-person.

The forum provided an opportunity to discuss and share ideas and new low-carbon solutions for agricultural and forestry waste utilization. It sought to promote the innovation and devel-



opment of agricultural and forestry biomass transformation and low-carbon utilization technologies and help enhance the role of agricultural and forestry biomass in achieving China's strategic goal of carbon neutrality.

Chinese and South Korean experts discuss cooperation on carbon peak and neutrality targets



China-South Korea Science and Technology Cooperation Seminar

On July 5, 2022, the China-South Korea Science and Technology Cooperation Seminar was held in Dalian, Liaoning Province, as more efforts are being made to meet carbon peak and neutrality targets. Luo Hui, Director General of the Department of International Cooperation (Hong Kong, Macao, and Taiwan Exchange Office) of CAST, pointed out in her speech that there is broad space for cooperation between the science and technology communities in China and South Korea in the realm of low-carbon development. She suggested the two sides join hands to promote innovative low-carbon transformation and institutional innovation for low-carbon development while raising green awareness among the public and supporting global sustainable development.

National societies

Portal Hypertension & Cirrhosis officially launched as the world's first dedicated English journal on the topic

On June 25, 2022, the first China Portal Hypertension & Cirrhosis Development Conference was held in Nanjing, Jiangsu Province. The conference also announced the launch of *Portal Hypertension & Cirrhosis*, the world's first dedicated English journal on the topic.



As the official journal of the Portal Hypertension Alliance in China (CHESS), Portal Hypertension & Cirrhosis is published by the Chinese Medical Association Publishing House and distributed worldwide by Wiley. Oi Xiaolong, Founder & Chair of CHESS, is its founding editor-in-chief, and its editorial board members hail from world-renowned institutions of higher learning including Harvard, Stanford, Yale, and Oxford. The journal aims to build a top-tier academic platform for portal hypertension and cirrhosis, publish high-quality original articles and authoritative guidelines, and disseminate the latest research results to medical practitioners and researchers in the field

Cell Research achieves record high impact factor

The latest Journal Citation Reports (2021 Edition), released on June 28, 2022, gave the academic journal Cell Research an impact factor of 46.297, ranking it 44th globally and 3rd among 194 journals in the Cell Biology category (excluding review journals).

Cell Research is published monthly by the Chinese Society for Cell Biology (CSCB) in partnership with the Center for Excellence in Molecular Cell Science under the Chinese Academy of Sciences (CAS). It publishes high-quality original research articles, authoritative reviews, and highlight reports in English. The growth of its impact factor evidences Cell Research's rise to a top international academic publication with independent intellectual property rights.

IHFCA holds first General Assembly and first session of its first Executive Board Meeting in Beijing

On June 30, 2022, the International Hydrogen Fuel Cell Association (IHFCA) held its first General Assembly and first Session of its first Executive Board Meeting in Beijing. IHECA was founded by the Chinese Society of Automotive Engineers, and its membership now includes those from the United Nations Development Programme (UNDP), Toyota, AngloAmerican, Daimler Greater China (DGRC), Honda Motor, Hyundai Motor Group, Air Liquide, Shell, SAIC Motor, and China FAW Group.

As China becomes the world's largest market for fuel cell electric vehicles, it has attached growing importance to innovation and industrial development of hydrogen energy. Wan Gang, President of CAST, declared at the general assembly that developing hydrogen energy has become a strategic choice for all countries to meet carbon neutrality targets. He predicted that the establishment of IHFCA would provide an important platform to coordinate global industry resources, deepen multi-field and multi-level exchange and cooperation, and promote high-quality development of the hydrogen energy industry.



The first General Assembly and the first session of its first Executive Board Meeting of IHFCA

54th International Chemistry Olympiad (IChO 2022) opens in Tianjin

On July 10, 2022, the 54th International Chemistry Olympiad (IChO 2022) opened in Tianjin.



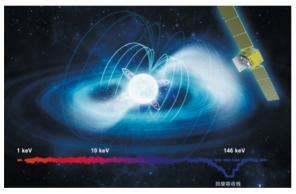
Opening ceremony of the IChO 2022

Founded in 1968, the IChO is an annual competition for the world's most talented chemistry students at the secondary school level. A total of 31 countries and regions around the world have participated in the event so far.

The United Nations proclaimed 2022 the "International Year of Basic Sciences for Sustainable Development (IYBSSD 2022)." Chemistry, as an elemental science discipline, has made vital contributions to the progress and development of human society over the past 200 years. As a co-organizer of the IChO 2022, CAST seeks to make the competition a platform for exchange and friendship among all participants.

S&T News

Chinese space telescope Insight-HXMT discovers strongest magnetic field in the universe



Pulsars's complex magnetic field structures detected by Insight-HXMT (Photo credit: Institute of High Energy Physics, Chinese Academy of Sciences)

A Chinese team of researchers recently discovered the strongest magnetic field ever recorded in the universe with the Chinese space telescope Insight-HXMT. The field, with the strength of 1.6 billion tesla and cyclotron resonance scattering feature (CRSF) energy up to 146 keV, was detected on the surface of a neutron star called Swift J0243.6+6124. The discovery surpassed the previous record of one billion tesla on another neutron star, which was also made by Insight-HXMT in 2020, and suggested pulsars may have high-energy CRSH and complex magnetic field structures.

Chinese-led research team discovers first charm tetraquark hadron family

On July 9, 2022, at the 41st International Conference on High Energy Physics (ICHEP2022) in Italy, three Chinese-led research teams reported new hadron discoveries.

One team of researchers from Tsinghua University and Nanjing Normal University observed a hadron family containing four charm quarks as part of the CMS (Compact Muon Solenoid) collaboration at CERN's



Large Hadron Collider (LHC). Another team, led by Professor Chen Xin of the Department of Physics of Tsinghua University, found evidence of particles over four quarks from LHC's A Toroidal LHC ApparatuS (AT-LAS) experiment. The third team of particle physics researchers from the University of Chinese Academy of Sciences reported their findings on three new exotic particles, two of which are new "tetraquark" hadrons in concomitant states. as part of LHC's LHCb (Large Hadron Collider beauty) collaboration. These exciting discoveries may provide new clues for scientists to understand the fundamental properties of matter.

China plans construction of

world's longest detection range radar

Will an asteroid ever hit Earth? To know as early as possible, China has recently decided to build the world's farthest detection range radar, the "Chinese Compound Eye", in Chongqing.

The radar, officially named "Super Large **Distributed** Aperture Radar High Resolution Deep Space Active **Observation Facility** Project," is expected to provide high-resolution observation of asteroids and Earthlike planets within a range of 150 million kilometers. It will expand the boundaries of deep space observation, meet China's major national needs such as near-Earth asteroid defense and space

situational awareness, and promote frontier innovation in planetary science research.

Beijing Institute of Technology will lead the development of the radar in collaboration with the National Astronomical Observatories, the Chinese Academy of Sciences (NAOC), Tsinghua University, Peking University, and other research institutions.

Three Tsinghua University Undergraduates win Best Student Paper Award at 54th ACM Symposium on Theory of Computing (STOC 2022)

At the 54th annual ACM Symposium on Theory of Computing (STOC 2022) in June 2022, three Chinese



students were honored with the Danny Lewin Best Student Paper Award. The trio, all full-time undergraduate students in Tsinghua University's "Yao Class," founded by world-leading computer scientist Professor Andrew Chi-Chih Yao, beat out teams of undergraduate and postgraduate students for the award.

Organized by the American Computer Society (ACM), the Symposium on Theory of Computing is widely acknowledged as the most prominent event in the field of theoretical computer science. The chance of winning its Danny Lewin Best Student Paper Award is only 2.9%. The team bested 400 papers submitted from around the world, and its members were the first-ever Chinese undergraduate students to win the prize.

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CAST is the largest non-governmental organization of scientific and technological professionals in the world. Through its 211 member societies and local branches all over the country, CAST maintains close ties with millions of Chinese scientists, engineers, and other professionals working in fields of science and technology. www.cast.org.cn