

CATALYZER NO.1

ICHO2022

2022/06/10



GRAIN IN EAR

It is the ninth of the twenty-four solar terms

Grain in Ear (Chinese: 芒种, pronounced as *Mang Zhong*), falls on June 5, 6 or 7 each year.

Grain in Ear, pronounced as *Mang Zhong*, means "grain crops with awns can be planted". It happens around June 5 each year when the sun reaches the celestial longitude of 75 degrees. In this season, the temperature rises significantly, the rainfall is abundant, and the air humidity is high, which is suitable for planting late rice and other crops. Grain in ear is a solar term for the period also known as "busy farming".



THE 54TH INTERNATIONAL CHEMISTRY OLYMPIAD HELD A PRESS CONFERENCE

The 54th International Chemistry Olympiad (IChO2022) will be held in Tianjin on July 10. Today, the Organizing Committee of IChO2022 held a press conference to introduce the progress of relevant preparatory work, and officially release the emblem, slogan, mascot, competition schedule and highlights of this event.

The International Chemistry Olympiad is one of the most influential youth science competitions in the world. IChO2022 is co-organized by the China Association for Science and Technology, and Tianjin Municipal People's Government, and jointly hosted by Nankai University, the Chinese Chemical Society, the China Association for Science and Technology Youth Science and Technology Center and the Tianjin Association for Science and Technology.



Affected by the global situation of COVID-19, IChO2022 will be held online from 10 July to 18 July. So far, the Organizing Committee has received confirmation letters from **82 teams**.

The theory test will be held on July 13, from 14:00 to 24:00, Beijing time. Each team will arrange the 5-hour test according to their own time zone. Online and offline invigilation will be implemented to ensure fairness and impartiality. In order for the participants to host country and the host place in a real, the Organizing Committee will hold a during the event.

The aim of this event is not only to excellent students from all around the knowledge, but also a platform to the passion of science, to provide communication and to increase friendship among all participants.



experience the local conditions and customs of the three-dimensional and comprehensive way, number of cultural and scientific activities provide a competitive platform for world to compete in chemistry encourage young people to pursue a place for cultural mutual understanding and

ICHO2022 EMBLEM

The emblem is composed of a blast furnace, a seal, a few auspicious clouds, Olympic rings and other elements



54th IChO2022
International Chemistry Olympiad



TIANJIN, CHINA



The emblem is composed of a blast furnace, a seal, a few auspicious clouds, Olympic rings and other elements. Alchemy is the earliest chemical application in China. The furnace represents the origin of chemistry and pays tribute to the International Chemistry Olympiad held in Beijing in 1995. The seal, which is a traditional Chinese cultural symbol, serves as the symbol of the host country, and pays tribute to the 2008 Summer Olympic Games in Beijing. As to the auspicious clouds, there is an old Chinese saying, 'the meeting of wind and clouds,' which is a metaphor for a capable person meeting a good opportunity, to express that this event is a great opportunity for leading young chemical students from all over the world to display their talent. The colors of the Olympic rings are used to color the auspicious clouds, symbolizing the inheritance of the International Olympic spirit. Students from five continents gather in one event and compete together. Pale purple, also known as 'Nankai University purple', reflects the enthusiasm of Nankai University to welcome guests from all over the world and its determination to run this competition well.

CHANGE CREATION FUSION

改变 创造 融合

The slogan is 'Change, Creation, Fusion'. The form of the slogan adopts a catchy parallel sentence pattern that has not been used in the previous IChO. Among them, 'change' and 'creation' are the essence of chemistry, reflecting the important role of chemistry in the process of world evolution and development. 'Fusion' embodies the meaning not only for blending and integration of chemical materials as well as for multiple cultures of mankind. Therefore, 'fusion' aims to echo the furnace in the emblem of IChO2022. To 'change' reflects China's proposition that science and technology are for social good, that science and technology are involved in social governance, and that science and technology can better contribute to human well-being. 'Creation' is more about innovation, which begins in childhood: we need to be good at innovation, be brave about innovation, and be responsible regarding innovation.

MASCOT KEM



Kem



Name: Kem

The mascot The prototype of the mascot is a golden monkey, also known as the snub-nosed monkey, is one of the best-known endangered wild animals in China. The name of IChO2022 is called 'Kem', named after the English word of 'Chemistry'. Kem always wears a pair of lab goggles, and enjoys exploring new ideas in the lab. The look highlighting that IChO is an International event for young chemistry enthusiasts. Kem is also inspired by the popular figure Monkey King (Sun Wukong, simplified: 孙悟空), from Journey to the West. This mascot is seen as the modern version, who is passionate about chemistry and remains curiosity, it intends to inspire young people from all over the world to love science and enjoy IChO.



CHINA

“IT IS ALWAYS A PLEASURE
TO GREET A FRIEND FROM AFAR”

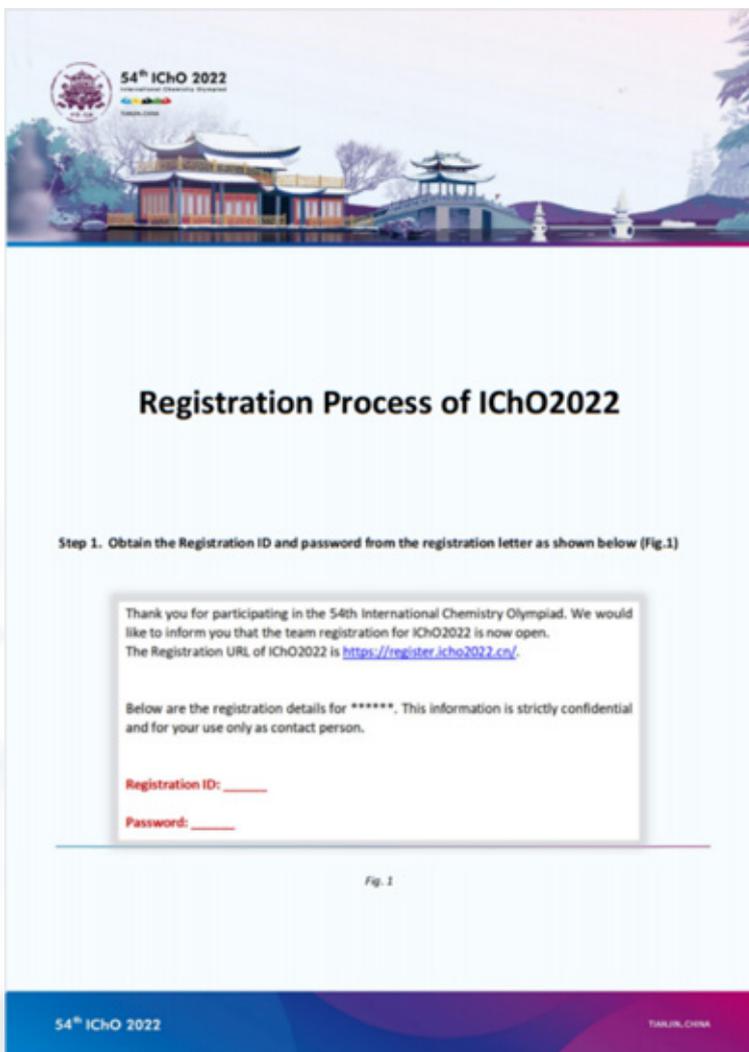
The People's Republic of China is located in the eastern part of the Asian continent, on the western Pacific rim. It is a vast land, covering 9.6 million square kilometers. China stretches from its westernmost point on the Pamir Plateau to the confluence of the Heilongjiang and Wusuli Rivers, 5200 kilometers to the east. The northernmost point in China is located at the midpoint of the Heilongjiang River, north of Mohe in Heilongjiang Province. The southernmost point is located at Zengmu'ansha in the Nansha Islands, approximately 5500 kilometers away. China possesses 20,000 kilometers of land border, plus 18,000 kilometers of coastline. China's climate is complex and varied. It includes the monsoon, continental and highland climate systems, and spans 5 temperature zones from south to north. A large part of China is affected by the alternating winter-summer monsoon winds. It has the most intense version of a monsoon climate in the world. To that end, compared with other regions at the same latitude in the world, the winter temperature is considerably lower in China, while the summer temperature is similarly higher. A striking annual temperature difference and far more rainfall in summer mark the essential features of China's continental monsoon climate. China has a population exceeding 1.4 billion people, which is approximately 18% of the world's population, making it the most populous country in the world. China is also a unified multi-ethnic country, with 56 ethnicities identified and confirmed by the central government to date. Chinese people of all ethnic groups contributed their unique wisdom to Chinese civilization and the founding of this unified multi-ethnic country. China is one of the Four Great Ancient Civilizations. Around 5800 years ago, civilization blossomed in the middle and lower reaches of the Yellow and Yangtze Rivers, as well as the West Liao River and other regions.

Today, China has become the second largest economy and the biggest industrial and agricultural country. The world's largest single-dish radio (FAST) inquiries into the universe, the Shenzhou series spaceships soar, the world's first quantum satellite Mozi delivers messages, the China railway high-speed bullet trains roar, the Beidou positioning system has been networked, and super computers are in full swing... China today is a powerhouse contributing nonstop to technological innovation.

As Confucius said, 'It is always a pleasure to greet a friend from afar'. The XXIV Olympic Winter Games has just concluded in China's capital Beijing, and now we celebrate the commencement of the 54th International Chemistry Olympiad in Tianjin. We welcome youth from all across the globe with a common love for chemistry to this event. We hope that you'll have a pleasant and fruitful time.



THE REGISTRATION SYSTEM OF THE 54th INTERNATIONAL CHEMISTRY OLYMPIAD (IChO2022)



◀ The Organizing Committee sends Registration Process of IChO2022, a document detailing the registration process, to the teams who have replied to confirm their participation. The whole registration process is consisting of Information Submitting and Payment Process.

▼ Each team will be composed of 2 mentors, 4 students, 2 invigilators, several observers and guests. The registration system will collect the names, photos, date of birth and other basic information of the participants. By registration system the participating teams can choose the most suitable examination time, invigilation method and payment method. In addition, we collect personalized self introduction videos using for the Opening Ceremony.



The official launch of the registration system means that the countdown to the opening of IChO2022 has begun. The Organizing Committee will actively strive to provide a wonderful International Chemistry Olympics festival for the world.

Q&A



How to get INVOICE to pay your registration fee?

The whole registration process is consisting of Information Submitting and Payment Process.

After the Information Submitting is finished and the number of participants is determined, you will then receive the invoice from us in the contact email.

If your team needs a long payment process or you have to get the invoice in advance, please tell us the exact number of participants, payment method, invoice title and other basic information through the contact person's email. We will send you the invoice as soon as possible.

After the whole process is finished and viewed by the IT service, you will then be confirmed for a successful application.

Reply to confirm participation but not receive team registration information?

If you reply to confirm your participation but do not receive the registered account and password information, please check your email inbox carefully first to confirm whether the team registration information is judged as spam email.

We will send the team registration information within three days after you reply to confirm your participation. If not, please contact us in time at: registration@icho2022.cn

CLASSICAL CHINESE POETRY

Poetry is a bright pearl in the treasury of Chinese culture and art. With rhythmic and vivid language, poems reflect life in a highly condensed and concentrated manner, while the poet's emotions are expressed to the fullest through poetry. A poem expresses as much as an essay, or even a book. Mourning the ancient and grieving the modern, describing social style and natural landscape, expressing feelings and inspirations or the sadness of parting. All these can be found in Chinese poetry. The charm of poetry lies in the fact that despite the passage of time and the lapse of years, the poetic sentiment still lingers in people's spirit.

登鶴雀樓

王之渙【唐】

白日依山尽，
黄河入海流。
欲穷千里目，
更上一层楼。



Wang Zhihuan (688-742), a native of Taiyuan, the capital of Shanxi Province, has been bright from childhood, and is good at writing articles and composing poems, particularly five-character poems; he excels in depicting frontier fortress scenery. Ascending the Stork Tower, as Wang's representative poem, is well known to all Chinese people, inclusive of women and children.

"The light is dimming as the golden beams begin to disappear from the tops of the distant mountains, which are to swallow up the white sun on the decaying", the beginning lines sketch out a distant view from the tower; and "the Yellow River charges eastward, emptying itself into the sea" is a close-up shot: the surging waves, full of power and grandeur, are spectacular. "To enjoy a panoramic view — climb, climb to a great and greater height" is redolent of philosophical speculations: to fulfill extraordinary achievement, we have to make more efforts by climbing to a greater height. The poem expresses the poet's unrivalled ambition and great width of mind when ascending the Stork Tower, while reflecting the spirit of enterprise and the positive attitude of people in the height of Tang Dynasty (618-907).

Ascending the Stork Tower

Wang Zhihuan [Tang Dynasty]

The light is dimming as the golden beams begin to disappear from the tops of the distant mountains, which are to swallow up the white sun on the decaying. The Yellow River charges eastward, emptying itself into the sea. To enjoy a panoramic view — climb, climb to a great and greater height.

translated by : Prof. Zhang Zhizhong

THE TWENTY-FOUR SOLAR TERMS

The twenty-four solar terms are the specific periods in the Chinese calendar that indicate the natural rhythm of the changing seasons. There are two solar terms per month, and each solar term has its own unique meaning. The 24 solar terms accurately reflect the natural changes in most parts of China. It is not only a season system to guide agricultural production, but also plays a very important role in people's daily life. The cultural connotation of the 24 solar terms is an important part of the long history and culture of China.



THE TWELVE CHINESE ZODIAC SIGNS:

The twelve Chinese zodiac signs are a Chinese way of recording the years, arranged in order into twelve animals: the rat, the ox, the tiger, the rabbit, the dragon, the snake, the horse, the sheep, the monkey, the rooster, the dog and the pig. As a long-standing folk culture symbol, Chinese people have used it as an inspiration for a large number of poems, spring couplets, paintings, calligraphy and folk craft works depicting the images and symbolism of the Chinese zodiac, carrying their hopes and good expectations.



THE SUMMER SOLSTICE

It is the 10th of the twenty-four solar terms

Summer Solstice (Chinese:夏至, pronounced as *Xia Zhi*), falls on June 21 or 22 each year. On the Summer Solstice, the position where the sun appears highest in the sky as it reaches the northernmost point, and the daylight hours in all parts of the northern hemisphere are the longest in the whole year. The "summer solstice" is the starting point of midsummer. After the summer solstice, most parts of China will experience high temperature, high humidity and thunderstorms.



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OFFICIAL WEBSITE
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THE FIRST PLACE OF THE CHINESE ZODIAC
Years of rat: 2020, 2008, 1996, 1984
1972, 1960, 1948, 1936