

DUT Newsletter



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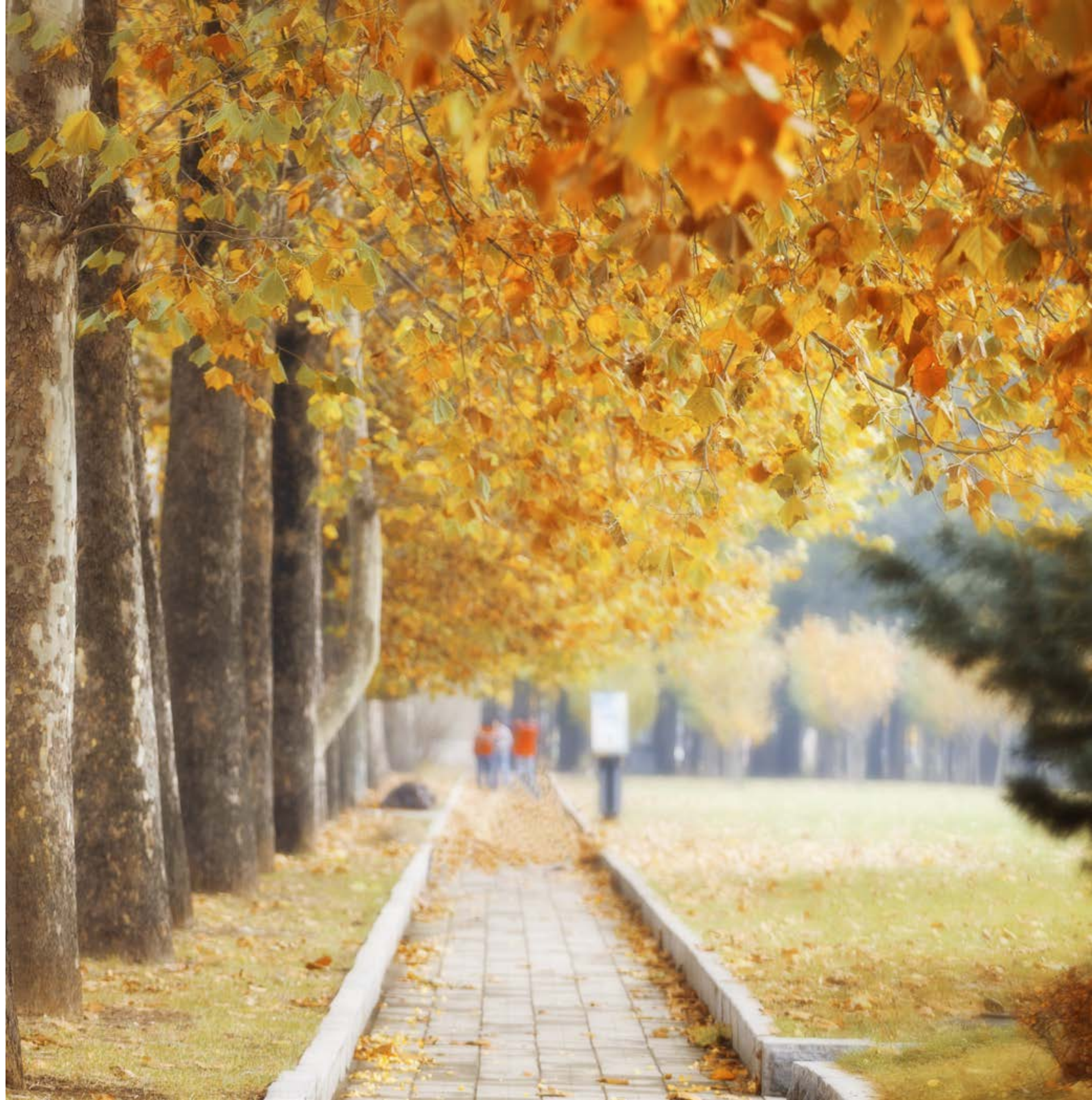
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SPOTLIGHTS



DUT Holds “Liu Changchun Cup” Track and Field Sports Meeting 2021

Dalian University of Technology holds “Liu Changchun Cup” Track and Field Sports Meeting 2021 recently, which adopts the way of no live audience and webcast to present the wonderful scenes to all students and faculty members. Let’s take a look at some key moments on the field!



RESEARCH



Five Achievements of DUT Won 2020 National Science and Technology Awards

Recently, the list of winners for 2020 National Science and Technology Awards were released. Five achievements of DUT won the awards.



The project “Analysis and Control of Nonlinear Switched Systems” led by Professor Sun Ximing from Faculty of Electronic Information and Electrical Engineering won the second prize of the National Natural Science Award.

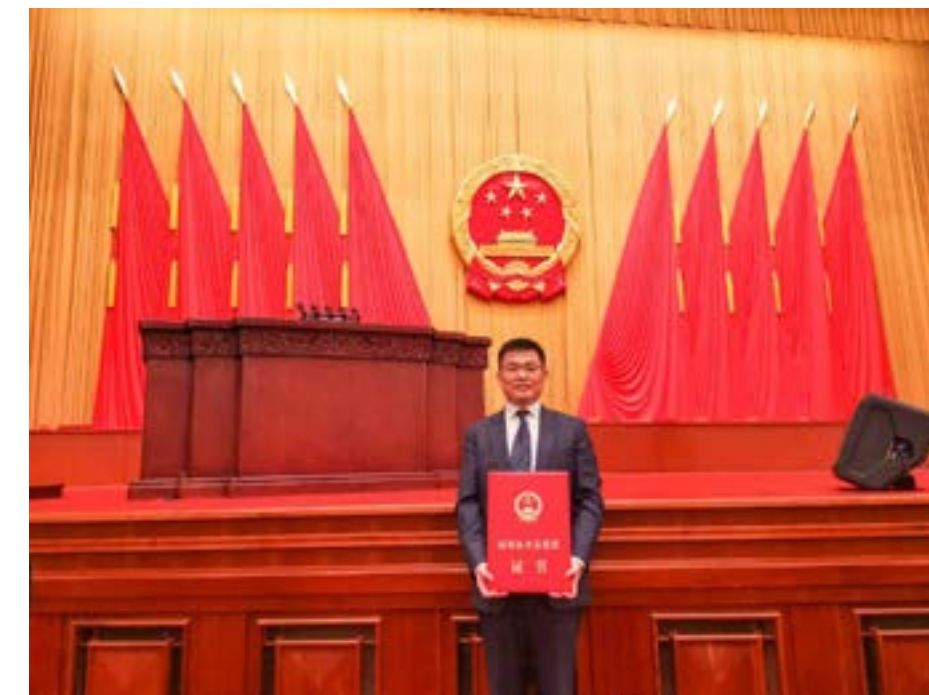
The project “Innovative technology for enhancing biochemical treatment of wastewater” led by Professor Quan Xie from School of Environmental Science and Technology won the second prize of the National Technological Invention Award.



The project “Fluorescent dyestuff and its application for blood cell imaging” led by Professor Fan Jiangli from School of Chemical Engineering won the second prize of the National Technological Invention Award.

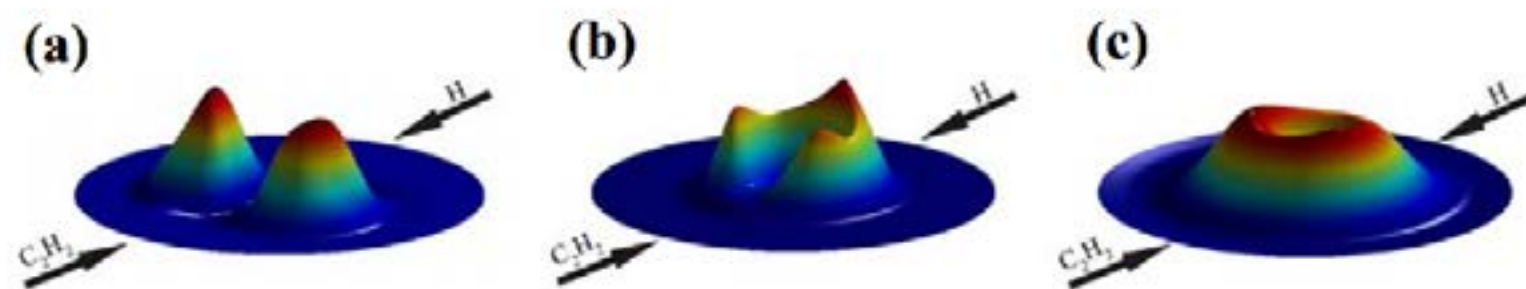


The project "Novel lightweight high load-carrying aerospace structures and efficient optimization design technology and its applications" led by Professor Wang Bo from Faculty of Vehicle Engineering and Mechanics won the second prize of the National Technological Invention Award.



The project “Dual hardening hot medium pressure forming for thin-walled integrated components of hard-to-deform alloys” led by Associate Professor Fan Xiaobo from School of Mechanical Engineering won the second prize of the National Technological Invention Award.

School of Physics Makes New Progress in Molecular Collision Reaction Research



Recently, Professor Han Yongchang from School of Physics, Dalian University of Technology, in collaboration with Professors Fu Bina and Zhang Donghui (Academician of CAS) from State Key Laboratory of Molecular Reaction Dynamics, Dalian Institute of Chemical Physics, has discovered the collision-induced roaming mechanism in another system (hydrogen atoms colliding with acetylene molecules) [*Journal of Physical Chemistry Letters*, 12, 4211 (2021)] after the previous study on the collision of hydrogen atoms with ethylene molecules [*Chemical Science*, 11, 2148 (2020)].

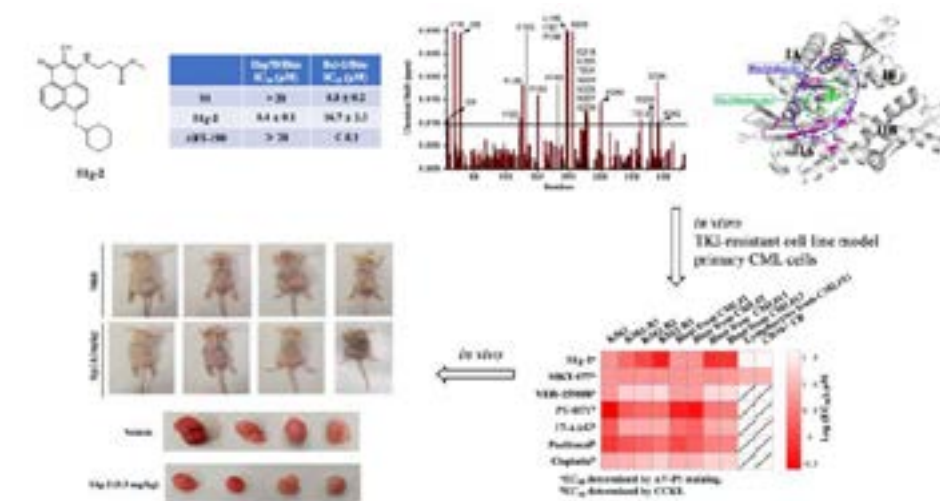
They report two novel roaming pathways for the $H + C_2H_2 \rightarrow H_2 + C_2H$ reaction by performing extensive quasiclassical trajectory calculations on a new, global, high-level machine learning-based potential energy surface. One corresponds to the acetylene-facilitated roaming pathway, where the H atom turns back from the acetylene + H channel and abstracts another H atom from acetylene. The

other is the vinylidene-facilitated roaming, where the H atom turns back from the vinylidene + H channel and abstracts another H from vinylidene. The “double-roaming” pathways account for roughly 95% of the total cross section of the $H_2 + C_2H$ products at the collision energy of 70 kcal/mol. These computational results give valuable insights into the significance of the two isomers (acetylene and vinylidene) in chemical reaction dynamics and also the experimental search for roaming dynamics in this bimolecular reaction.

The research result was published in *The Journal of Physical Chemistry Letters* with Fu Yanlin, a PhD student from School of Physics, as the first author and Professors Han Yongchang and Fu Bina as co-corresponding authors. This work was supported by the National Natural Science Foundation of China, the Key R&D Program of the Ministry of Science and Technology of the People's Republic of China, and the Chinese Academy of Sciences.

School of Chemical Engineering Makes New Progress in Leukemia Treatment Research

The research group from School of Chemical Engineering, Dalian University of Technology (DUT), has made a series of progresses in the integration of leukemia target discovery, anti-cancer drug development and biomarker identification, and has discovered a new therapeutic target for chronic myeloid leukemia (CML), developed an new anti-cancer drug lead for CML treatment, and revealed the BCR-ABL mutation-independent drug resistance to kinase inhibitors (TKIs). This series of researches integrates the chemistry strategy and the frontier technology of biology, focuses on the key scientific problems in the field of clinical medicine, and overcomes the problem of drug resistance in the field of leukemia treatment, which is a pioneering research in translational medicine and another important achievement of DUT in the intersection of medicine and industry.



Professor Zhang Zhichao's research team has always been committed to developing Bcl-2-targeted anti-cancer drugs, and firstly discovered that Hsp70 protein can function as a Bcl-2 like protein and promote tumorigenesis in synergy with the classical Bcl-2 family in 2020. The research result has been published in one of the

82 top international journals included in *Nature Index (J Bio Chem., 2020, 295, 12900)*. Based on this, the corresponding author of the study,

Associate Professor Song Ting, proposed a hypothesis to integrate the multidisciplinary techniques of chemistry and biology to rapidly obtain the first specific Hsp70/Bim small molecule inhibitor Slg-2 from the library of Bcl-2 inhibitor molecules already created by the team as a new anti-cancer drug candidate. The related result was published by Associate Professor Wang Ziqian in *Eur J Med Chem., 2021, 220, 113452*.

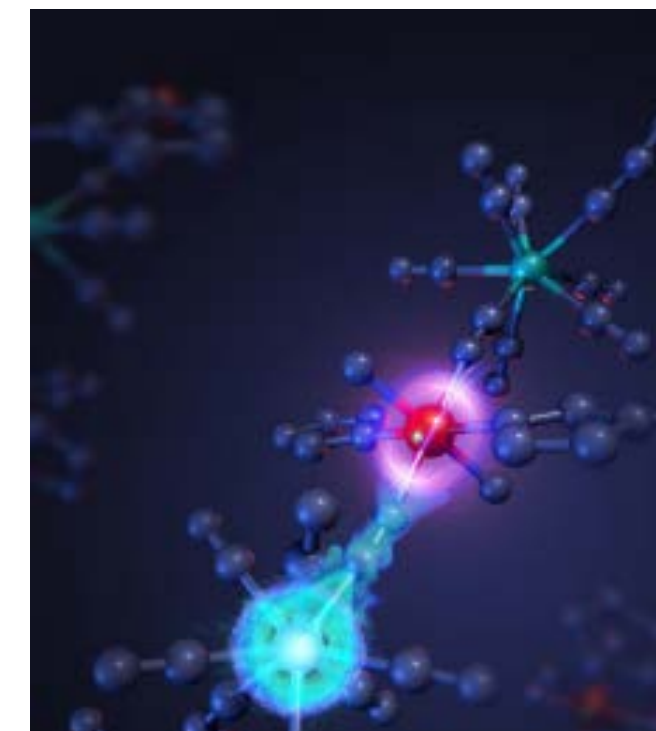
Then, the research group further developed translational medicine and innovative drug research for TKI-resistant leukemia. They screened a novel inhibitor of the Hsp70-Bim protein-protein interaction (PPI), S1g-2, from a Bcl-2 inhibitor library; this compound specifically disrupted the Hsp70-Bim PPI by direct binding to an unknown site adjacent to that of an allosteric Hsp70 inhibitor MKT-077, showing binding affinity in sub- μ M concentration range. S1g-2 exhibited overall 5–10-fold higher apoptosis-inducing activity in CML cells, primary CML blasts, and BCR-ABL-transformed BaF3 cells than other cancer cells, normal lymphocytes, and BaF3 cells, illustrating Hsp70-Bim PPI driven by BCR-ABL protects CML through oncoclient proteins that enriched in three pathways: eIF2 signaling, the regulation of eIF4E and p70S6K signaling, and the mTOR signaling pathways. Moreover, S1g-2 progressively enhanced lethality along with the increase in BCR-ABL-independent TKI resistance in the K562 cell lines and is more effective in primary samples from BCR-ABL-independent TKI-resistant patients than those from TKI-sensitive patients. By comparing the underlying mechanisms of

S1g-2, MKT077, and an ATP-competitive Hsp70 inhibitor VER-155008, the Hsp70-Bim PPI was identified to be a CML-specific target to protect from TKIs through the above three oncogenic signaling pathways. The in vivo activity against CML and low toxicity endows S1g-2 a first-in-class promising drug candidate for both TKI-sensitive and resistant CML. The result was published by Associate Professor Song Ting in *Leukemia*, the journal of Leukemia Society of America, which is ranked 3rd among hematology journals and 9th among oncology journals.

The study was supported by both the National Natural Science Foundation of China and the Dalian University of Technology-Liaoning Cancer Hospital Medical-Industrial Cooperation Program.

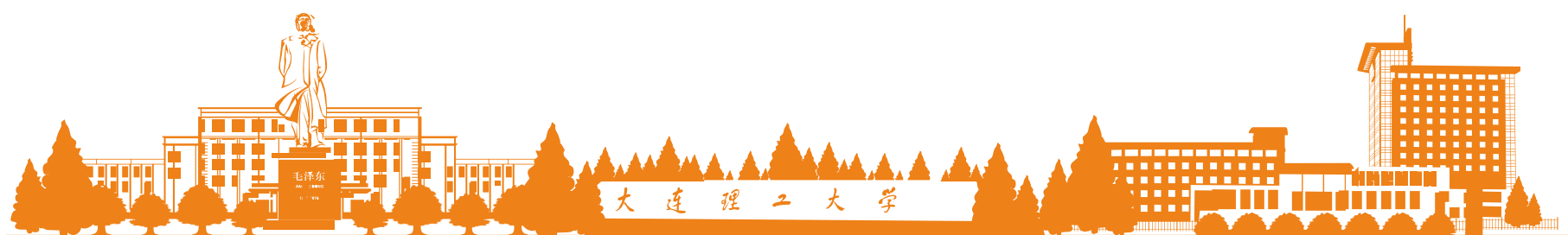
DUT Research Group Made Progress in Manipulating Hysteresis of Photo-switchable Molecular Nanomagnets

Recently, Prof. Liu Tao's group from State Key Laboratory of Fine Chemicals, Dalian University of Technology (DUT), has made important progress in manipulating hysteresis of photo-switchable molecular nanomagnets by assembling $[\text{W}(\text{CN})_8]^{3-}$ units coordinated with Fe^{II} -based spin-crossover motifs into one-dimensional chains. The work was published in *Nature Chemistry* entitled *Switching the magnetic hysteresis of an $[\text{Fe}^{\text{II}}-\text{NC}-\text{W}^{\text{V}}]$ -based coordination polymer by photoinduced reversible spin crossover*.



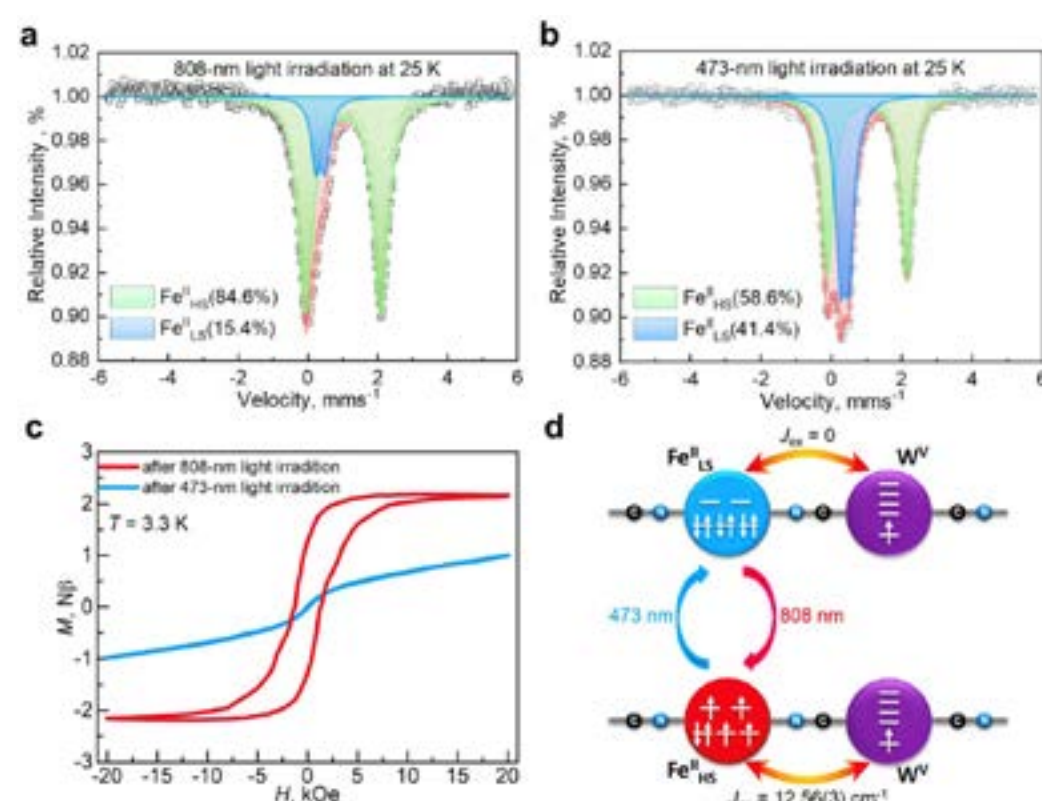
Magnetic bistable materials that feature magnetic hysteresis are comparable to elementary binary units and promising for application in switches and memory devices. Especially, photo-switchable molecular nanomagnets have caught increasing attention from the research field, since they provide a new way to control the magnetic bistable states by switching in the 0→1→0 sequence, which is crucial for future technological demands for high-density data storage and processing. However, the reported photoinduced molecular

nanomagnets failed to exhibit a magnetic hysteresis that related to binary units and cannot be switched off by alternating light irradiation. In this work, they design a molecular material that consists of parallel cyanide-bridged $[\text{Fe}^{\text{II}}-\text{W}^{\text{V}}]$ coordination chains linked together through rigid bis(imidazolyl)-benzene ligands. Magnetic study demonstrates that it is a photo-switchable molecular nanomagnet. The paramagnetic high-spin and diamagnetic low-spin states of the spin-crossover Fe^{II} ions can be interconverted



by reversible light-induced excited spin state trapping (LIESST) by alternating between light irradiation of 808 and 473 nm. At 1.8 K, under 808-nm-light irradiation, magnetic interactions between the photogenerated paramagnetic high-spin Fe^{II} centres and the W^{V} centres lead to long fragments that exhibit single-chain magnet

behaviour, with a wide magnetic hysteresis and a large coercive field of 19 kOe; under 473 nm light, isolated $\text{Fe}^{\text{II}}\text{--W}^{\text{V}}$ fragments behave as single-molecule magnets instead. At 3.3 K, the high-spin form still displays magnetic hysteresis, albeit narrower, whereas the low-spin one does not.

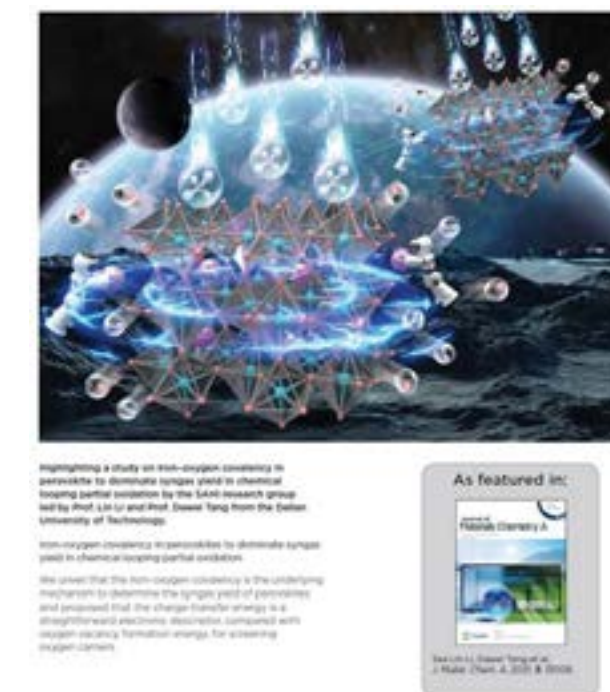


This work represents the first example of photo-switchable molecular nanomagnets whose magnetic hysteresis can be reversibly switched on and off. They hope this approach can be applied to the design of other SCO-based functional complexes with the LIESST effect as well as for the development of various optically switchable molecular multifunctional materials.

The work was supported by both the National Natural Science Foundation of China and DUT. Dr. Zhao Liang from State Key Laboratory of Fine Chemicals is the first author, and Prof. Liu Tao and Associate Prof. Meng Yinshan are the co-corresponding authors.

Research Results of the School of Energy and Power Engineering Provide Strong Support for Achieving the Goal of “Carbon Neutrality and Carbon Peak”

Recently, Prof. Tang Dawei's research team from School of Energy and Power Engineering, Dalian University of Technology (DUT) has made progress in the research of the oxygen carrier for chemical looping hydrogen generation. *Journal of Materials Chemistry A* (IF: 11.3), an international authoritative journal of energy materials, published the research results online titled *Iron-oxygen covalency in perovskites to dominate syngas yield in chemical looping partial oxidation*, used it as the cover article and recommended it as the highlight of the issue.



Chemical looping reforming is an advanced hydrogen production technology featured with carbon dioxide separation. Compared with traditional reforming technology, it greatly reduces the energy consumption of hydrogen purification. At the same time, it decouples the endothermic step from the exothermic step, which helps to introduce solar energy instead of fossil fuel combustion for energy support, thereby reducing the emissions of carbon and nitrogen oxides during the process, and the exergy loss of the system. The development of

this technology can provide strong support for the energy system to achieve the goal of "carbon neutrality and carbon peak".

The selection of high-performance oxygen carriers is the key to the development of hydrogen production technology by chemical looping reforming. The oxygen partial pressure of the oxygen carrier directly determines its hydrogen yield. Perovskite oxide (ABO_3) is currently the most promising oxygen carrier due to its variable composition and adjustable

thermodynamic partial pressure. Nevertheless, the intrinsic relationship between the electronic structure of the perovskite oxygen carrier and the thermodynamic oxygen partial pressure remains elusive, so the current screen of oxygen carriers can only rely on a large number of experiments. Therefore, in order to carry out calculation-assisted oxygen carrier research and development, it is of great significance to develop an effective electronic structure descriptor to indicate the oxygen partial pressure of the oxygen carrier.

This work studied the influence mechanism of the A-site element in the perovskite on the covalency of the B-O bond. It is found that the ionic radius of the A-site element would cause the BO₆ octahedron in the perovskite structure to undergo spatial tilting of different degrees, which causes a change in the covalency of the B-O bond in the energy space. This change can be reflected by the B-O bond charge transfer energy. Subsequently, this team explored the influence pattern of the covalency of the B-O bond on the thermodynamic partial pressure of oxygen. The results show that the decrease in the covalency of the B-O bond increases its charge

transfer energy, which increases the formation energy of oxygen vacancy and oxygen ion diffusion energy barrier of the oxygen carrier, thereby reducing its oxygen transfer activity and its superficial oxygen activity. The above changes eventually lead to an increase in the thermodynamic partial pressure of oxygen of the oxygen carrier. The work has unveiled the intrinsic relationship between the electronic structure of perovskite and the thermodynamic oxygen partial pressure, and proposed taking the charge transfer energy as an electronic descriptor for evaluating the performance of oxygen carriers, which has laid down the foundation for rapid screening of perovskite oxygen carriers based on machine learning.

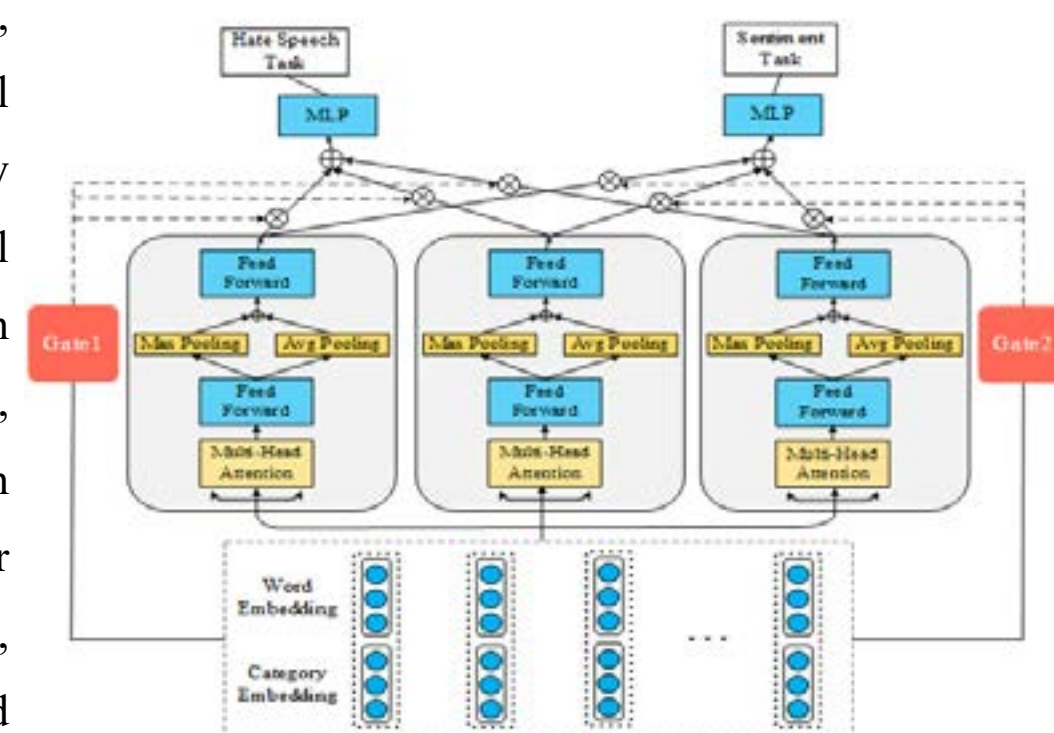
The first author of this paper is Jiang Bo, a postdoc from DUT, and the corresponding authors are Assoc.Prof. Li Lin and Prof. Tang Dawei.

This project was funded by the General Program of the National Natural Science Foundation of China and the General Program of the Chinese Postdoctoral Science Foundation.



DUTIR Achieved a Series of Breakthroughs

Natural Language Processing (NLP), an important branch of artificial intelligence, applies computer technology to process, understand and exploit natural language. At present, NLP is used in various fields, such as machine translation, personalized recommendation, information searching, screening and filtering, character recognition and speech recognition, opinion analysis, etc, and has broad research and application prospects. Recently, Information Retrieval Laboratory (DUTIR) of School of Computer Science and Technology, Dalian University of Technology (DUT) has made a series of breakthroughs in the field of NLP and many scientific research results have been accepted by top conferences and journals in the field of NLP.



Since the wanton dissemination of hate speech on the Internet has caused great harm to society and families, it is urgent to establish and improve the automatic detection and active system for hate speech. Current methods for hate speech detection suffer from “inherent biases” in the training process due to their stereotypes of words. The results of the research team, focusing on hate speech detection and active avoidance system on the Internet, were reported in Hate Speech Detection Based on Sentiment Knowledge Sharing. The

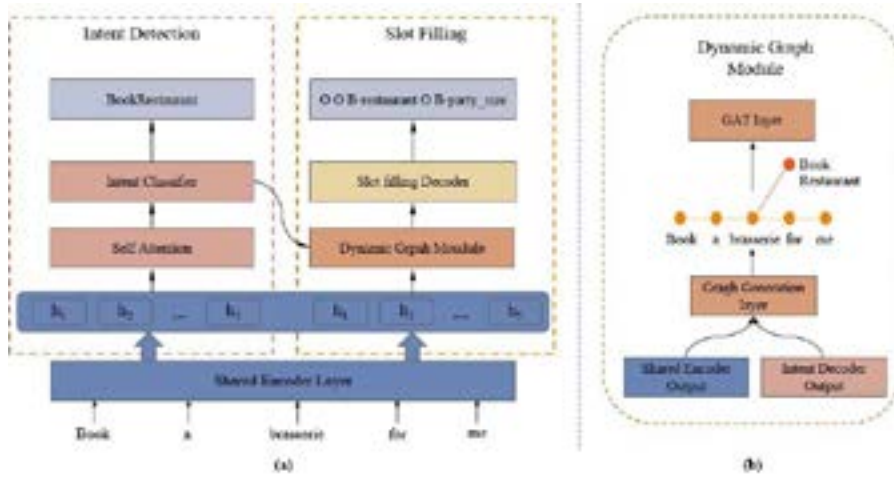
paper was accepted by the top NLP conference, Association for Computational Linguistics 2021 (ACL2021, CCF A-Level Conference). The research proposed a hate speech detection framework based on shared emotional knowledge. With the framework, the system can make better use of the emotional features in external resources and integrate features from different feature extraction



units to detect hate speech while extracting the emotional features of the target sentence.

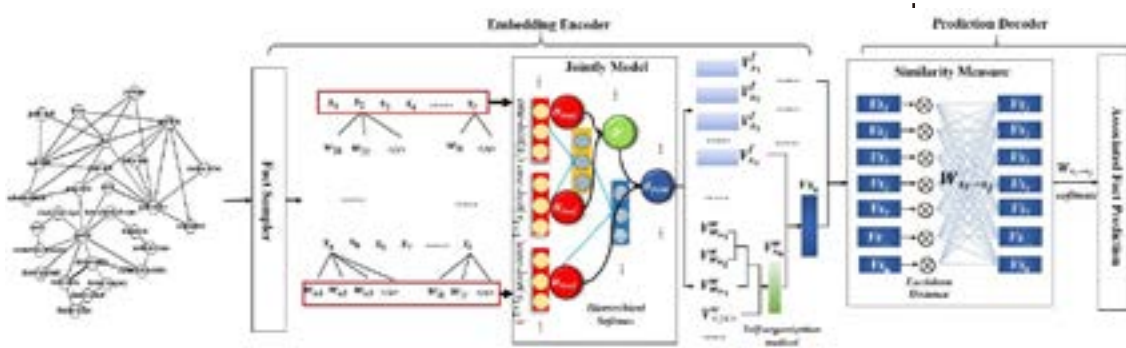
Metaphor is a very common language recognition phenomenon and metaphor computation is one of the most challenging problems in NLP. However, due to the lack of multimodal metaphor data, most metaphor research is currently limited to the recognition of metaphor phenomena in the text. To solve the problem mentioned above, the team focused on the establishment of data set to provide high-quality data for multimodal computational metaphor research. The research result, MultiMET: A Multimodal Dataset for Metaphor Understanding, was accepted by the top NLP conference, Association for Computational Linguistics 2021 (ACL2021, CCF A-Level Conference). The research used platforms with high frequency of multimodal metaphors such as social media and advertisements as the main source of data, standardized the concept definition and classification of multimodal metaphors, and established a multi-link quality monitoring mechanism. Utilizing statistics to analyze and verify data, the first large-scale and high-quality multimodal metaphor data set was proposed. At the same time, a series of baseline experiments were conducted based on the multimodal data set and the importance of multimodal data to metaphor recognition was demonstrated by the interaction between multimodal data. The study extends the metaphor computation

from pure text to multimodality field, promotes the development of multimodal metaphor computation, and provides a new direction for metaphor recognition in the future. Thus it is important for the development of implicit semantics research.



The team conducted research on the joint learning of slot filling and intent detection in dialogue tasks of NLP, Focus on Interaction: A Novel Dynamic Graph Model for Joint Multiple Intent Detection and Slot Filling, was accepted by the top artificial intelligence conference, International Joint Conference on Artificial Intelligence 2021 (IJCAI2021, CCF A-Level Conference). Understanding spoken language is an important part of task-oriented dialogue, consisting of two subtasks: slot filling and intent detection. However, due to the error propagation of Pipeline (sequential processing according to the specified order in the field of computer) and the high correlation between the two tasks, joint learning is often better than Pipeline method. Current joint learning mostly aims at single intent situations, but in real situations, users often express multiple intents in one sentence. The study

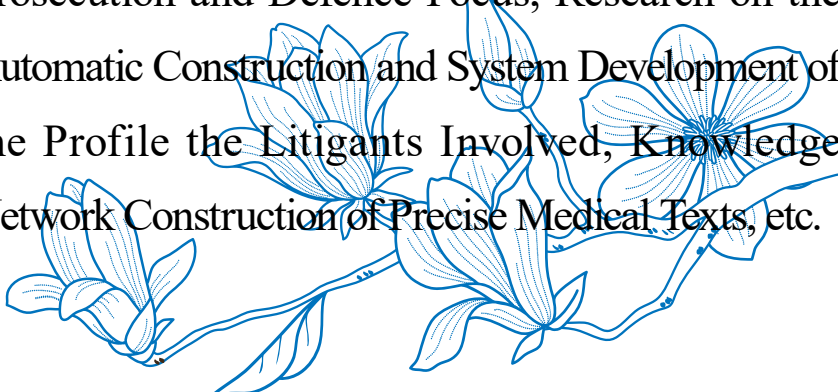
proposed a dynamic graph model for slot filling and multiple intent detection. The model can directly establish connections between the two tasks and the dynamic interaction graph can effectively reduce noise. At the same time, the model can dynamically update the interaction graph in the training process, so as to better establish the relationship between intent and slot and improve the friendly interaction of man-machine dialogue.



Semantic network is a widely existing graph-structured data. Associated fact prediction based on semantic network is an important way to mine the hidden knowledge in the network for it can explore the potential and valuable association relationships between facts. Previous methods for associated fact prediction focus more on the topological features of the network but ignore the role of semantic information. The results of the team focusing on the multi-dimensional modeling and knowledge mining of the semantic network are reported in A Semantic Network Encoder for Associated Fact Prediction. The article is published in the influential journal in the field of data mining, IEEE Transaction on Knowledge and Data Engineering (TKDE, CCF A-Level Journal). The study proposes a semantic network encoder, which can adapt to various forms

of semantic network and jointly model the topological and semantic features of the network. Meanwhile, the word self-organization method based on fact boundaries built in the encoder can integrate the semantic and topological features of the same fact, thereby enhancing the information expression ability of fact vectors.

DUTIR focuses on NLP technology and studies information retrieval, emotional computing, biomedicine, smart justice, data mining, knowledge graph, man-machine dialogue, etc., based on deep learning and machine learning. The research results of the team in recent years have been published in important international conferences and journals such as ACL, IJCAI, WWW, SIGIR, EMNLP, COLING, TKDE, and Bioinformatics. Based on scientific research, the lab actively explores major national strategic needs and undertakes national key research and development programs such as Evidence Correlation Analysis of Public Prosecution Cases and Case Auxiliary Judgment, Court Trial Response Strategies and Establishment of Court Trial Plan Based on the Identification of Prosecution and Defence Focus, Research on the Automatic Construction and System Development of the Profile the Litigants Involved, Knowledge Network Construction of Precise Medical Texts, etc.





TALENTS CULTIVATION

Many Congratulations to DLI First Cohort for Their New Stages



The Leicester International Institute, Dalian University of Technology (DLI) represents a Sino-overseas cooperative educational institution, jointly established in March 2017 by Dalian University of Technology (DUT) and the University of Leicester (UoL) as a school under DUT.

As of June 2021, there are 139 graduates in the class of 2021 of DLI. The overall graduation rate is 87.77%. Of them, 27 have admitted into the outstanding universities in China, including 20 recommended. 80 received offers from universities abroad. 13 employed, and 2 applied

for the second degree.

On 25 June, DLI's Inaugural Graduation Ceremony and undergraduate degree congregation were held on Panjin Campus. A total of 139 graduates attended the grand ceremony and express their thanks to parents, teachers and friends and respect for their alma mater.

To all the graduates who are leaving DLI this summer, no matter where you are, we wish you all the best for a bright future!

DUT Students Receive Awards at the Global Youth Leadership Academy

Recently, 38 students from public foreign language reform class, Dalian University of Technology (DUT), participated in the Global Youth Leadership Academy (GYLA), the theme of which is "Developing Young Talents, Cultivating a New Generation of Global Leaders". More than 180 students from ten domestic universities and 40 students from Germany, Philippines, Nepal, Nigeria, India, Indonesia, Switzerland, Uganda, UK, Iraq and

Jamaica attended the Academy. DUT students participated in the two phases of the study, and received unanimous praise from experts, fully demonstrating their excellent quality and ability. 15 DUT students won the Outstanding Contribution Award and 6 won the Excellent Student Title Award.



GYLA is one of the key partners of DUT public foreign language teaching reform pilot project and international talent cultivation. Founded in 2016, GYLA aims to cultivate young talents with global leadership qualities based on the United Nations (UN) Sustainable Development Goals (SDGs). GYLA takes "Of the Youth, By the Youth, and For the Youth" as the core concept of talent training. With senior officials from the UN, professors and scholars from world-renowned universities, and experienced entrepreneurs and professionals from home and abroad as the expert

team, GYLA provides interdisciplinary and cutting-edge training courses, youth forums, and entrepreneurial practice opportunities in green enterprises to enhance young participants' commitment to achieving SDGs and global governance. Over the past six years, GYLA has worked closely with more than 50 universities and 13 UN agencies, training more than 1,300 trainees, of whom more than 50 have gone to work or internship in international organizations and hundreds have entered world-renowned universities for further study.

DUT International Students' Works Won the "Liaoning Province and Africa Video and Photo Competition"

Recently, the winners of the "Liaoning Province and Africa Video and Photo Competition" co-sponsored by the Foreign Affairs Office of Liaoning Provincial People's Government and the Educational Department of Liaoning Province were announced. The two works from School of International Education, Dalian University of Technology (DUT), namely, the photo collection "African Students' Experience in China" and short video "Life in

Dalian University of Technology", were selected from 69 entries and 20 finalist works from universities in Liaoning province, of which "African Students' Experience in China" won the first prize in the photo category and "Life in Dalian University of Technology" won the third prize in the short video category. DUT became the only university in the province that won awards in both the picture and video categories.



The Video and Photo Competition further enhance the mutual understanding between African international students and Chinese people. For a long time, DUT has been aiming at creating all-round international elite talents and building a cultivation system inside and outside the classroom to help build a first-class university, improve international communication ability, tell the Chinese story to the world, spread the Chinese voice, and improve the national cultural soft power and Chinese cultural influence.

DUT Student Team Won the iF Design Talent Award 2021

Recently, the winners of the 2021 iF Design Award were revealed. Public Sports Aid Pile, an undergraduate design by An Ziheng and Liu Yueqin, supervised by Associate Prof. Zhang Lu from the Department of Industrial Design of School of Architecture and Fine Art, Dalian University of Technology (DUT), was selected among more than 10,000 entries from dozens of countries worldwide and won the iF Design Talent Award 2021.



The iF Design Award was founded in 1953 by Germany's oldest industrial design institution and is known as the Oscar of the design community. iF Design Talent Award is a design award for students and young designers worldwide, encouraging the creation of innovative designs that change the world and dedicated to exploring design directions that will lead to future products. It asks young designers to broaden their horizons, and come up with creative solutions to problems common to all humanity. Of the more than 10,000 entries worldwide, only 75 have won the iF Design Talent Award, a rate of less than 1%.





This year, the competition categories correspond to the Sustainable Development Goals of the United Nations, and the entry from DUT is closely related to one of the 15 themes: Good Health and Well-being. Due to the continuous improvement of social infrastructure and rising standards of living, more and more people are engaging in sports. However, that also means that the need for first aid for sports injuries is greater than ever. The entry Public Sports Aid Pile by the team of An Ziheng and Liu Yueqin designed a sports injury first aid pile, which can ensure that a variety of first aid equipment – from bandages to blankets – are easily at hand when needed. This design is modular, its functionality refined, it is convenient to use, and the stylish shape means it will not look out of place in a gym or other sports facility. It provides a new idea for the first aid design of sports injuries and is in line with the theme of "Good Health and Well-Being".

The students and faculty from Department of Industrial Design of School of Architecture and Fine Art have won many awards in design competitions at home and abroad in recent years, which is the presentation of the results of the School's emphasis on students' practical teaching. It also reflects the international design community's unanimous recognition for the education and teaching level and talent cultivation quality of DUT industrial design program, which is considered to reach the international excellent level.



DUT Won a Gold Medal in the 7th China International College Students' Innovation and Entrepreneurship Competition

From October 12 to 15, the finals of the 7th China International College Students' Innovation and Entrepreneurship Competition were held in Nanchang University. After the fierce competition in the university-level preliminary rounds, provincial-level intermediary heats and national finals, Dalian University of Technology (DUT) achieved a total of 1 gold, 4 silvers and 3 bronzes in the finals.



It is reported that the Competition was launched in early 2021, attracting more than 2.28 million projects and 9.56 million participants from 121 countries and regions and 4347 institutions at home and abroad. With the gathering of famous universities, enterprises and experts, the Competition has become the most influential double-creation event covering all colleges and universities in China, providing a new platform for college students in the new era to bloom themselves, show their style and serve the country, and providing Chinese wisdom and Chinese solutions for the reform of innovation and entrepreneurship education in the world.



INTERNATIONALIZATION



2021 International Conference on the Cooperation and Integration of Industry, Education, Research and Application held in NE. China's Dalian

Abstract: The 2021 International Conference on the Cooperation and Integration of Industry, Education, Research and Application (Dalian) was held in Dalian, northeast China's Liaoning Province recently.

Guided by the Ministry of Education of the People's Republic of China and the People's Government of Liaoning Province, the conference was hosted by the National Center for Schooling Development Programme and organized by Educational Department of Liaoning Province and Dalian University of Technology.



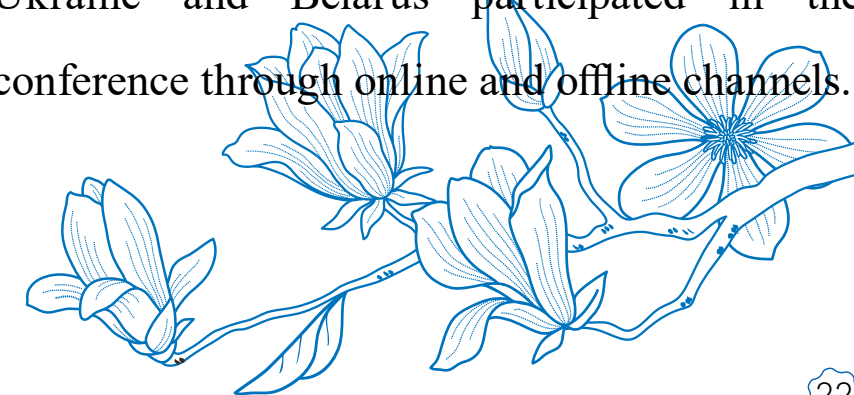
Tian Xuejun, Vice Minister of Education, delivered an online speech at the conference, pointing out that after three years of development, the conference has become a symphony of open cooperation composed by universities, enterprises, and research institutes from all over the world.

Currently, under the changes in the world and epidemic situation, the call for strengthening communication and cooperation in the world is even stronger, said Tian, hoping that all parties of the conference could promote the high-quality development of international industry-university-research-application cooperation and build an industry-university-research-application innovation consortium.

According to Vitrenko Andrii, Deputy Minister of Education and Science of Ukraine, the Belt and Road Initiative has promoted the exchanges and cooperation between China and Ukraine in the fields of science and technology, innovation and education, and the relationship between Chinese and Ukrainian universities and

scientific research institutions is getting closer. He hopes that both parties can maintain this good communication trend and further strengthen cooperation.

Focused on in-depth cooperation and exchanges in the fields of high-end equipment manufacturing and new materials, new generation of information technology and intelligence, green chemical industry and new energy materials, the conference has witnessed the signing of nine cooperation agreements between Chinese and foreign universities and the establishment of a research and innovation center between Dalian University of Technology and Belarusian State University and a center for transformation of scientific and technological achievements between Northeastern University and BNTU. 860 experts and scholars representing about 100 universities and scientific research institutions from many countries including China, Russia, Ukraine and Belarus participated in the conference through online and offline channels.



The Board of Administration Meeting of DLI was Successfully Held

On the afternoon of September 28, the Board of Administration (BOA) Meeting of Leicester International Institute, Dalian University of Technology (DLI) was held by video conference in Room 412 of the Main Building. Nishan Canagarajah, President of University of Leicester (UoL), Philip Baker and Sarah Davies, Pro Vice-Chancellors of UoL and the Academic Registrar and Director of Finance from UoL, and Guo Dongming, President of Dalian University of Technology (DUT), Zhu Hong, Vice President of DUT, Guo Jinming, Assistant President of DUT, directors



from DUT Academic Affairs Office, Institute of Science and Technology, International Office, Finance Office, School of Chemical Engineering, School of International Education, DLI and other members of BOA attended the meeting.



The meeting considered and approved the memberships and appointments of BOA and Joint Academic Committee (JAC), listened to the Joint Deans Report: 2020-2021 Annual Development Review, considered and approved the DLI 2020-2021 Final Account and the 2021-2022 Budget Plan,

and discussed the contents of the Supplemental Agreement. The members of BOA unanimously agreed that DLI has successfully cultivated the first batch of graduates with high employment quality, high percentage of graduates pursuing further studies and remarkable achievements in school operation. In the past year, in the areas of talent training, cooperation and exchange, faculty development and specialty development, DLI has proactively coped with the impact of COVID-19 by taking innovative measures, and achieved good results. The established Research Collaboration Working Group and Senior Operation Group between the two sides have been carried out in an orderly manner, and the work of meeting the evaluation of Ministry of

Guo Dongming said that the first batch of graduates of DLI were highly regarded and recognized by MOE and various parties in the society, and the achievements were in line with the original intention and expectations of the



Education (MOE) is going smoothly. The next step should be to work on the premise of ensuring the quality of school operation, focusing on expanding the scale and influence of school operation and promoting scientific research cooperation, so as to build a solid foundation for long-term cooperation between the two universities.

cooperation between the two universities. This is the result of the win-win cooperation, and also provides strong support for the expansion of the Institute scale. It is hoped that both sides will continue to strengthen their cooperation, step up the pace of cooperation in scientific research cooperation, mutual visits of teachers and joint training of postgraduate students, enhance closer cooperation and promote the healthy and long-term development of cooperation between the two universities.

Nishan Canagarajah said that it is an outstanding achievement for DLI to successfully cultivate its first cohort of graduates and gain the attention and recognition of the society. We believe that with the joint efforts of the two universities, the quality of the Institute will be continuously improved and more batches of outstanding graduates will be cultivated. We hope that both sides will accelerate the progress of cooperation in scientific research and joint training of postgraduate students, and attract more teachers to participate in the cooperation between the two universities to provide sustainable momentum for the development of the Institute.

During the meeting, the two sides had an in-depth exchange on the topics of signing strategic cooperation agreement, expanding the scale of school operation and joint training of postgraduate students. This year coincides with the centenary celebration of UoL, a magnolia tree will be planted on UoL campus as a symbol of the friendship between the two universities.



President Guo Dongming Met with the Representative Director and Vice President of Panasonic Corporation and General Representative of Panasonic China & Northeast Asia Company

On the morning of September 1, Guo Dongming, President of Dalian University of Technology, met with Mr. Tetsuro Homma, Representative Director and Vice President of Panasonic Corporation and General Representative of Panasonic China &

Northeast Asia Company, on campus. They exchanged views and reached a broad consensus on the topics of university-enterprise research cooperation and joint training of talents.





DUT Joined the World Alliance of Universities on Carbon Neutrality as a Founding Member

Jointly initiated by Southeast University and University of Birmingham, the founding ceremony of World Alliance of Universities on Carbon Neutrality (WAUCN) was held in Nanjing recently. President Guo Dongming and Vice President Song Yongchen attended the inauguration ceremony online.

This is the first world alliance of universities focusing on talent training and research cooperation in the field of carbon neutrality technologies. The founding members of the Alliance include DUT and more than 10 other “Double First-Class” universities, the University of Birmingham and other world-renowned universities. Nearly 30 universities and research

institutes around the world joined the Alliance.

The initiative of building the WAUCN in the new era aims to leverage universities’ profound research resources in basic science and extensive interdisciplinary integration, and speed up constructing systems for carbon neutrality talent cultivation and scientific innovation in universities. Via the Alliance, cooperation and exchanges among global universities will be further promoted, so as to carry out joint talent cultivation and scientific research in carbon neutrality technologies in an all-round way, and proactively strengthen international cooperation in addressing climate change.

LASOSU2021: an Online International Conference for Land Degradation, Soil Conservation and Sustainable Development Held in Dalian

LASOSU2021, the International Forum on Land Degradation, Soil Conservation and Sustainable Development, 2021, was successfully held as an online conference recently. The conference is supervised by the World Association of Soil and Water Conservation (WASWAC), Italian Association of Agricultural Engineering (AIIA) and Soil Erosion Division of CSWCS (China) and the conference is organized by Dalian University of Technology (China) and University of Padova (Italy). Thirteen other famous institutes are involved in co-organizing

the conference, e.g., the Institute of Soil and Water Conservation of CAS & MWR (China), Beijing Normal University (China), Huazhong Agricultural University (China), Xi’an University of Technology (China), Italian Association for Soil and Water Bioengineering (Italy), etc.



Thoughtful reports and hot discussions have been carried out focusing on the cutting-edge topics for the effects of climate change on land degradation, remote sensing and big data in land degradation analysis, soil conservation and sustainable development, nature-based solutions for soil and water conservation, smart monitoring information system for soil and water conservation, decision-making information system for soil and water conservation and land resource management. 259 papers have been accepted and 10 outstanding participants have been awarded in LASOSU2021. The conference programme includes a welcoming ceremony, 2 slots for keynote presentations, 1 slot for focus group discussion, 23 slots for parallel sessions, and a closing ceremony. 241 participants from 19 countries in the field of soil and water conservation and sustainable development have been involved in the online communication during 22-23 August, including 53 chairpersons, 169 oral presenters and 19 poster presenters, 82 of which are at the level of professors, and 84 of which are from outside of China. In the conference, 6 preeminent scientists, including one member of the Chinese Academy of Sciences

and one member of the American Academy of Arts and Sciences, have given keynote speeches, and another 23 experts have given solicited parallel-session presentations. During the conference, a total of 2263 participants were recorded in the VooV meeting, Innovation China, and CNKI Online Lectures.



The presidents of the Organizing Committee of LASOSU2021 are Professor Ning Duihu (International Research and Training Center on Erosion and Sedimentation, China) and Professor Paolo Tarolli (University of Padova, Italy). President Ning Duihu, chaired the welcome ceremony, which was addressed by Professor Zhang Chi, Dean of the Faculty of Infrastructure Engineering, Dalian University of Technology, Mr. Li Weiguo, Director of the Water Bureau of Dalian Government (China), Professor Paolo Tarolli (Italy), Chairperson of the Organizing Committee, Professor Wang Wenlong, Director of the Soil Erosion Division, CSWCS, and Professor Giacomo Scarascia Mugnozza, President of the Italian Association of Agricultural Engineering. Academician Liu Jiangguo (USA), Academician Fu Bojie (China), Professor Vincenzo D'Agostino (Italy), Professor Cai Chongfa (China), Professor Paulo Alexandre da Silva Pereira (Lithuania) and Professor Roberto A Peiretti (Argentina) presented keynote speeches in the conference. Also an innovative slot, the Focus Group Discussion (FGD), was adopted in LASOSU2021. Professor Zheng Fenli (China) led an interesting discussion concerning Global Soil Conservation and Food Production together with 5 esteemed professors from 4 countries, Chi-hua Huang (USA), Liu Baoyuan (China), Paolo Tarolli (Italy), Altaf Ali Siyal (Pakistan), Wang Fei (China). It's worth noting that, the number of participants had reached the maximum capacity of 300 in a single Tencent/VooV meeting during this period. Finally, the closing ceremony was presided over by Professor Wang Wenlong. Professor Liu Xiaoying, the Secretary General of World Association of Soil and Water Conservation, announced the list of award recipients. Dr. Qin Chao from Tsinghua University (China), who won one of the outstanding papers, made a speech on behalf of the conference participants. The summary of the conference was made by Professor Federico Preti, president of Soil and Water Conservation Division of the Italian Association of Agricultural

Engineering, and Professor Zhang Guanghui, Vice Director of the Soil Erosion Division, CSWCS. By the end of the conference, Professor Xu Xiangzhou, the head of the conference team in Dalian, delivered a speech to extend his thanks and delights in organizing the LASOSU2021.



LASOSU2021 is a characteristic international meeting. The smooth network and communication during LASOSU2021 illustrate that to hold an online international conference at a large scale is practical in promoting the international exchange under the present COVID situation. In addition, LASOSU2021 is highly internationalized. All oral presentations and posters are in English, and the presenters and chairpersons from outside of China account for 35% of the 241 presenters/chairpersons. LASOSU2021 has not only a large number of participants but also a high academic level. The presenters/chairpersons at the professor level or above account for 34% of the total. The conference was also supported by various social forces: 18 famous universities, institutes and associations from China and other countries participated in the preparation and organization of LASOSU2021. Among them, Northwest A&F University, Shenyang Agricultural University and University of Florence (Italy), convened 5, 3, and 2 slots of parallel sessions, respectively. Moreover, two

enterprises sponsored the conference, and a leader of the local government also participated in the core slot of the conference. Especially, the professionalism and impartiality have been realized in selecting the outstanding attendances which have been approved by all participants

In conclusion, LASOSU2021 has received wide attentions in the field of soil conservation and sustainable development. It is said that "LASOSU2021 is a high-level international academic conference held under the epidemic situation of COVID-19". Maybe LASOSU2021 has made a promotion in improving the general studies and starting the key projects in the field. LASOSU2021 has played a positive role in providing a global perspective and strategic thinking to dissolve the problem of serious soil degradation described in the 2030 Agenda for Sustainable Development, a document adopted by all UN Member States in 2015.

CAMPUS LIFE

On September 29, Dalian University of Technology (DUT) held an opening ceremony at the Center Sports Field and welcomed the new cohort of 6260

undergraduate students and 7137 postgraduates from all over the country, as well as 146 international students from 42 countries.



University leaders and teachers wear DUT emblems for freshmen representatives



DUT President Guo Dongming delivered a speech during the opening ceremony

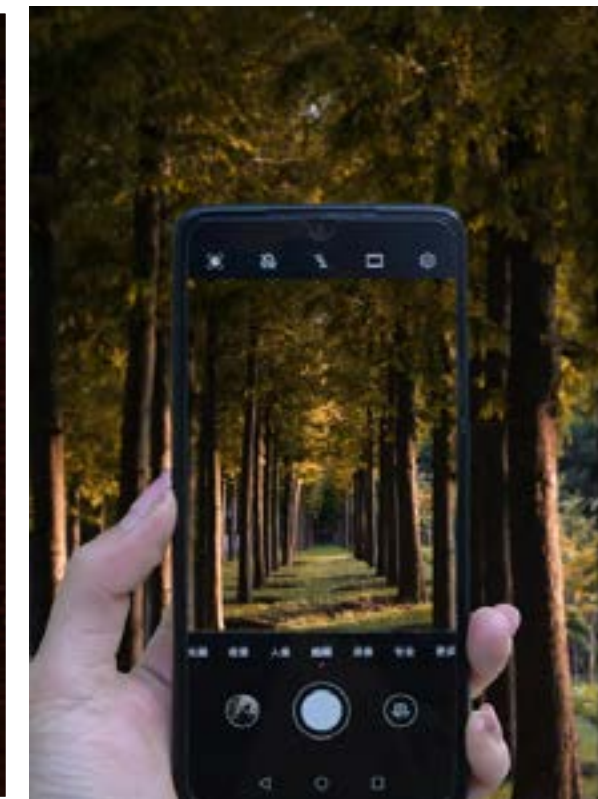
After the opening ceremony, the welcoming party started magnificently, integrating songs, dances, variety shows, recitations, guest stories and other various artistic forms to perfectly

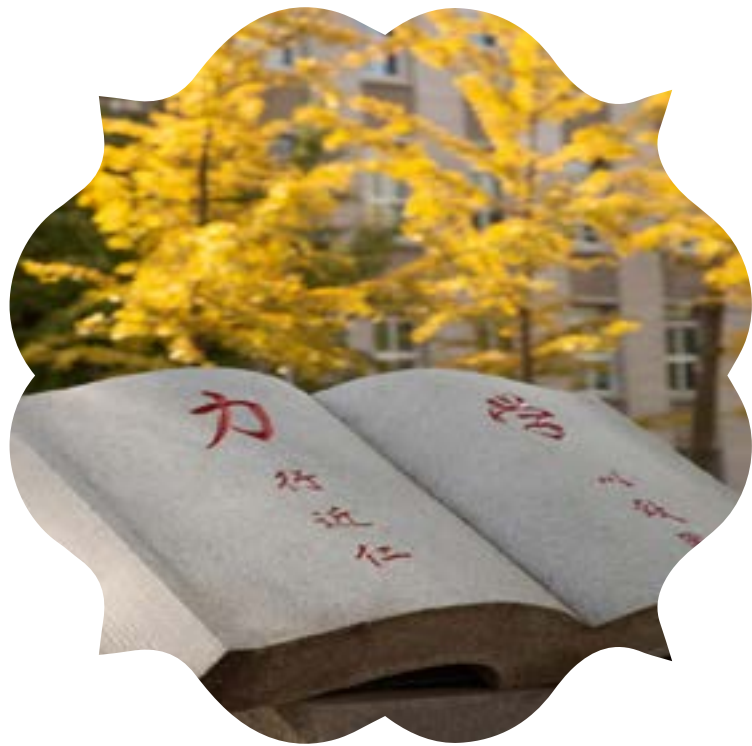
interpret the spirit and culture of DUT, showing the striving attitude of DUT students, and sending best wishes to the 2021 cohort.



Autumn

on DUT campus carries more golden yellow and flaming red in its pocket than all the other seasons.







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