



CHINA UNIVERSITY OF PETROLEUM

NEWSLETTER

Spring/Summer/2017



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2017 Commencement Held



On June 23, the commencement for the class of 2017 was held in the university gymnasium. Graduating students, parents, teachers, alumna and university leaders attended the ceremony. This year, 6652 students, including 4770 undergraduates, 1639 postgraduates, 121 doctoral students and 122 international students, will graduate.

President Hao Fang delivered a speech and encouraged students to be a person of responsibility. He also hoped students would fulfill their dreams through hard work and wisdom in the future.



The alumni Zhang Xingong shared his experience about his work and life. He hoped that student make a good plan about their life and are brave enough to make a meaningful future. On behalf of all graduating students, Zhang Xiaojin and Ma Bo made a speech, expressing their gratitude to the univeristy and their teachers.



EVENTS



The degree awarding ceremony was held. Students recieved their degrees from university leaders.



2017 Sports Meeting Held

On May 19, 2017 sports meeting took off. In the morning, the opening ceremony was held in the playground. About 1208 teachers and students from Qingdao and Dongying campuses participated the competitions, among which teachers were 598, students 610.



Richful programs, like broadcasting exercise, drums and gongs show, yoga, Drums and gongs and group dancing, were performed before the competition.



Delegation of Kitami Institute of Technology Visited UPC

On Feb. 24, the delegation of Kitami Institute of Technology led by the executive vice-president TAKASHI YOSHIDA, made visits to China University of Petroleum. The vice-president Zha Ming welcomed the guests and held discussions with them about future cooperation.

Based on mutual understanding, the following agreements have been successfully reached: the memorandum of understanding was signed; 2017 summer school programs and courses for computer students will be launched; short-time programs for cultural exchanges will be held.

Zha Ming introduced generally about the school and expressed his wishes that the two sides can make more communications on different fields, such as computer, new energy, mechanical engineering.



More teachers and students will be sent for study in Kitami Institute of Technology.

Svetlana Mintova invited to be Distinguished Expert on the Recruitment Program for Foreign Experts

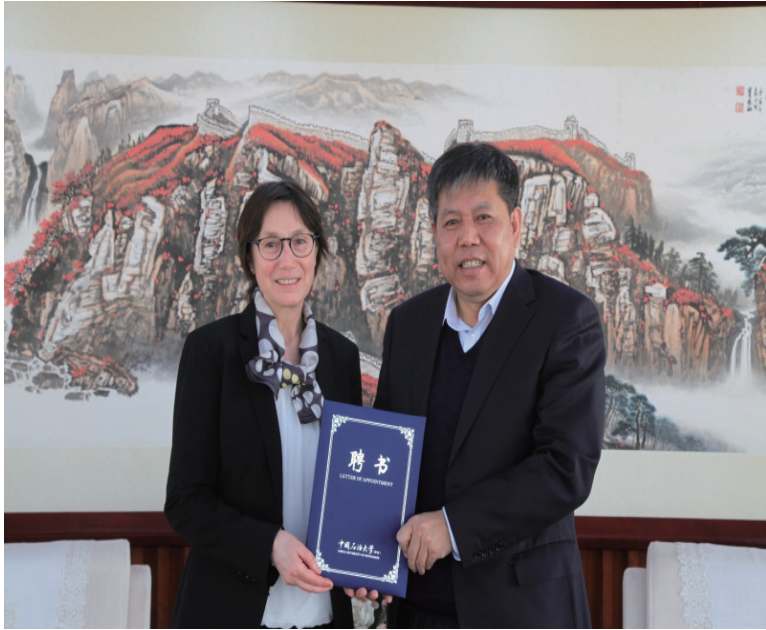
On March 8, prof. Svetlana Mintova from the National Center for Scientific Research of France (CNRS), made a visit to UPC and was invited to be the distinguished expert on the Recruitment Program for Foreign Experts. Hao Fang, the president of UPC, welcomed the meeting and issued the letter of appointment to her.

President Hao Fang made a brief introduction of the university. As he said, the university has great advantage in chemical engineering which is listed among the national key disciplines of China. Catalytic material, like Zeolite, is one of the key topics of chemical engineering and the Key Lab of Heavy Oil of UPC. He hoped that the two partners will carry forward more work in such area.

Svetlana Mintova spoke highly of the research ability of UPC and was deeply impressed by the study atmosphere of the school. During her appointment period, she will preside over a series of key projects and participate in discipline construction and student teaching.

Svetlana Mintova is the professor labrotary of catalysis

and spectrochemistry of CNRS. She has concentrated her work in the research and development of catlytic materials. She has received the 2016 Breck Price for her research at LCS . she will work in UPC for five years, at least six months a year.



The Delegation of UPC Attended International Conference on Porous Media&Annual Meeting

From May 8 to 11, 9th International Conference on Porous Media &Annual Meeting was held in Rotterdam, Netherlands. More than 700 scholars from all over the world participated the conference. The delegation from China University of Petroleum led by prof. Yao Jun was invited to attend. Prof. Yao Jun was also the member of program committee.

The attendees made discussions around the scope ‘theoretical. computational and experimental poromechanicas and porous media technology’. About 200 presentations and 300 posters were provided.

Research Center of Multiphase Flow in Porous Media, China University of Petroleum, undertook the parallel sessions on the topic of Pore-sacale fluid of tight porous media with Heriot-Watt University and the parallel sessions on

the topic of gas transfer simulation of micron-sized space with Los Alamos NationalLaboratory. 20 oral reports were made on the sessions. Dr. Liu Lei made the report titled with Sensitivity analysis of the effect of micro-fractures on petrophysical properties of tight reservoir, which introduced the new progress the center has achieved on the research of digital cores.

After the conference, the delegation made visit to Delft University of Technology, and had meetings with prof. William Rossen and Denis Voskov of department of petroleum engineering.

The 10th international conference on Porous Media &Annual Meeting will be held in New Orleans.

HUANGDAO FORUM

Huangdao Forum, initiated by president Hao Fang, is designed to provide a platform for academic communication and development of energy science. It mainly centers on key issues of energy science, application and output of key technologies and hot topics of interdisciplinary fields. Distinguished academic leaders and scholars at home and abroad will be invited to give lectures on hot topics and share their ideas with students and teachers. It will become a brand event for academic exchange, and play a key role in promoting discipline integration and research innovation.

See More Information About The Lectures

Academician Zhou Zhonghe: Developemnt and Challenges of Darwinian Evolution

On April 6th, the first huangdao forum was officially launched. Academician Zhou Zhonghe was invited to give a lecture on the topic of The Developemnt and Challenges of Darwinian Evolution: Geology and Paleontology’s Contribution. He was also appointed as the adjunct professor of the university. President Hao Fang attended the forum.



Zhou Zhonghe made an introduction fo Darwin’s contri-bution from five points: evolution, common ancestors, evolu-tionary change, populational variation and natural selec-tion. He pointed out that Darwin’s theories lay the founda-tion for evolutionism.In terms of time, he expounded other theories in promoting the development of evolutionism, like GJ Mendel’s genetics and GG Simpson’s paleobiology. He also explained the new challenges of evolutionism, such as epigenetics and sexual selection. In the conclusion, he stat-ed that natural selection is the main driving force in evolu-tion, and is the result of survival of the fittest and the lucki-est; the influence of environment and sexual selection on bi-ological evolution must be taken into account.

As he said, geology has made great contribution to the progress of evolution theories. Taken Charles Lyell’s Prin-ciples of Geology as an example, Zhou Zhonghe explained the viewpoint. Based on theories of continental drift, sea floor spreading and plate tectonics, he made a list of prehis-toric life and their evolution. Finally, he said, the research of evolution come to no end and needs common efforts from both biologists and geologists.

Zhou Zhonghe is a member of the Chinese Academy of Engineering and foreign associate of the US National Acad-emy of Sciences. His research field is mesozoic birds and

Jehol Biota. at present, he works as the chairman of the International Palaeontological Association and director of Insti-tute of Vertebrate Paleontology and Paleoanthropology of China.

Academician Jin Zhijun:American and Chinese Shale Development

On April 21, academician Jin Zhijun paid visit to China University of Petroleum and made a report on the theme of American Shale Revolution and Chinese Shale Exploration. Jin Zhijun expounded his idea on three aspects: American shale revolution, the present situation of Chinese shale exploration, and the future and challeng-es of Chinese shale development.

He introduced the history of American shale revolution and what we can learn from the revelution. As he said, resource is the basis, technology is the key, policy is the guarantee and benefit is the root. Innovation and progress of theories and technologies are the critical factor and main force of shale development. He explained that shale revolution is a global event. It also has happened in Can-ada, Argentina, China and Mexico. In recent years, China has made impressive achievements on shale exploartion and development.

Looking foward, Jin Zhijun stated that the richful resource and huge exploitable reserves foresee a bright future. At the same time, challenges are still remained to be solved, such as archaic geologi-cal time, volatile storage condition and complex surface condition. Therefore, the key technologies should be worked out and the in-dustrial model for shale exploration should be discovered and ad-

opted. Meanwhile, environmental protection should be given high priority to and sustainable development should be adhered to. Poli-cy support should be carried on which will provide differentiated subsidy for different regions.

In the conclusion, Jin Zhijun stated that shale exploration in China is a long and arduous course and we should deal with diffi-culties and challenges by scientific approaches.



Academician Gao Deli:
Green Development of Energy and Technology Innovation of Oil-gas Engineering

On May 7, Gao Deli, the academician of China Academy of Science was invited to Huangdao Forum and made a lecture on the topic of Green Development of Energy and Technology Innovation of Oil-gas Engineering.



Gao Deli first introduced the present situation of the global available energy and expounded his ideas from four parts: low-carbon energy and green development, challenges of remaining hydrocarbon exploration and development, shale

revolution and era of natural gas, complex oil and gas technological innovation. Gao Deli explained that, at present, the world has witnessed third energy revolution which is featured with natural gas, nuclear energy and renewable energy. According to the present trend, we can see that natural gas will be the main part of green energy. He stated that, the nature of energy evolution is the replacement of the main energy and the fundamental transformation of its exploration and utilization modes. Only the energy revolution is carried forward, the limitation of energy resources and ecological environment can be resolved.

As he has pointed out, cost decreasing and efficiency improving, and EOR are the key issues of the petroleum industry. As the exploitation of oil-gas resources is becoming more and more difficult, the severe challenges of engineering technology have to be faced with. Technologies like desert drilling, deepwater drilling, polar drilling and well engineering, will provide great support for oil exploitation and development.

HUANGDAO FORUM

Academician Jin Yong: Cultivation of Capability of Technological Innovation

Recently, academician Jin Yong from Tsinghua University was invited to Huangdao Forum and gave a lecture on the topic of the formation of scientific and technological innovation ability.

“During the course of college, we should cultivate students’ ability to observe, analyze and solve problems, the core of which is innovation ability.” Jin Yong started the report with the introduction of the 70th anniversary of the department of chemical engineering at Tsinghua University to discuss how to do better in the Department of chemical engineering. He stressed that life-long education has become an inevitable requirement in a knowledge explosion era. For university education, knowledge transfer is no longer the most important consideration, and the most important thing is to train the students’ ability.

Jin Yong pointed out that scientific research innovation ability is the main embodiment of international competition in the future. The competition of economic strength, national defense strength, national cohesion and overall national strength will ultimately depend on the level of science and technology, while the level of science and technology depends on the quality of talents, and the quality of talents lies mainly in the ability to innovate.

First-class technology is not traded in the market, first-class technology can not be bought, first-class technology is not imitation. Jin Yong uses real examples to show that only relying on independent innovation is the only scientific development model, in order to improve their own strength. He used graphene discoveries and the age of the Nobel prize winner as an example to show that innovation does not rely on the expensive equipment and the creativity has nothing to do with age.

Jin Yong introduced the following cognitive and mode of thinking: Aristotle’s deductive method, Bacon’s inductive method, Einstein’s intuitive method, Dialectics of Hegel, Buddhist and Taoist thinking, etc. Then he points out the comprehensive application of cognition and mode of thinking such as deduction, induction and intuition to achieve originality scientific discovery.

Jin Yong pointed out that creative people have the following personality qualities: imagination, association, observation, speculation, curiosity and change. He told the story of bionics, field telescopic materials, the invention of tunnel diodes, and the discovery of nucle-

ar fission by Mrs. Curie to the students. He vividly and clearly illustrates the role of these personality traits in inventions and scientific discoveries for teachers and students.

In the summary of the report, Jin Yong pointed out that the basis for fostering creative ability lies in a comprehensive and profound grasp of the existing knowledge system, so that it can truly be found on the shoulders of giants. Creativity comes from thought, success is from diligence. Living knowledge is conducive to creative thinking, and dead knowledge bound learners’ thinking. The objective truth of scientific theory system cannot be determined solely by science itself. Practice is the ultimate criterion for testing scientific theory and objective truth. The core of education is to cultivate ability and stimulate creativity. After the report, Jin Yong interacts with students to encourage young students to take the initiative and contribute to the prosperity of the country.

Jin Yong, Professor of Tsinghua University, was elected academician of Chinese Academy of Engineering in 1997. He, as the Convener of Academic Committee of Chemistry Committee of the State Council (4th to 6th sessions) and Beijing municipal government professional consultant (3rd to 6th), has long been engaged in the teaching and research work of chemical reaction engineering and fluidization reaction engineering. His more than 400 academic papers have been published at home and abroad, and 37 technical patents have been obtained.



HUANGDAO FORUM

Jacek M. Zurada:
Technological Innovation and New Topics for Future Research

On May 8, prof. Jacek M. Zurada (IEEE Life Fellow) from University of Louisville visited China University of Petroleum and gave a lecture on Future Directions in IEEE: Nurturing new technologies and organizing new communities. Zurada expounded his topic from different aspects, such as the effect of industrial revolution and technological innovation on the human history, double-faces of technology, the new events and topics for future technology, women's roles in technological development.

Beginning with the industrial revolution in Britain, he first introduced the history of technological development and pointed out that inventions at different times, like steam engine, alternator and integrated circuit, brought out the revolutions. As to modern technologies, he stated that technological innovation in some field may be the trigger of the next revolution.

As he said, technology has brought great benefits to the whole world, especially smartphones. However, as the saying goes, a coin has two sides. We should realize that the high intelligentization may violate people's privacy and pose a threat on data security. Therefore, the problem of morality should be taken seriously and regulations on technology field should be strengthened.

Zurada also introduced the hot topics for future research, including 5G, brain study, cloud computing and smart



cities. He has high expectation on researchers of the young generation and hoped that more cooperation should be conducted which is the basic of research.

Jacek M. Zurada is the professor of University of Louisville, IEEE Life Fellow. He is also the National Professor of Poland (conferred by the Polish president in 2003). Since 2015, he has worked as the distinguished professor in China University of Petroleum and the part-time doctor tutor of control theory and control engineering. His research field is intelligent computing, data mining, neural network, image processing and SLSI.

HUANGDAO FORUM

Rodney S. Ruoff: New Metal Foils and Carbon Materials

On June 14, prof. Rodney S. Ruoff from Center for Multidimensional Carbon Materials of South Korea made visit to China University of Petroleum and gave a lecture on New Metal Foils and Carbon Materials.



During the lecture, Prof. Ruoff gave a brief introduction of the research background and graphene based new carbon materials in energy and fuel area. Meanwhile, he showed us new research progress of the synthesis of high quality graphene and sp³-bonded carbon materials on new metal foils in his group.

New carbon materials with excellent properties have attracted much attention around the world. Over the past decade, graphene has developed rapidly as one of the most promising materials changing human life. As a kind of ultrathin sp³-bonded carbon films, "Bilayer diamond" ("dia-

mane") also has a promising application future. The development of facilely synthetic methodologies for the preparation of large-area ultrathin sp³-bonded carbon materials has always been an important challenge in the field of carbon materials. Prof. Ruoff's Group is focusing on the synthesis of high quality graphene and sp³-bonded carbon materials on new metal foils by chemical vapor deposition.

One method of growing graphene films that are more than one atomic layer thick is by chemical vapor deposition on metal substrates that have non-negligible carbon solubility. Prof. Ruoff introduced the research progress of synthesizing single crystal Cu (111) foil at large scale and the fabrication of Ni (111) & Co (0001) single crystal foils. Single crystal Cu (111) foil and Ni (111) & Co (0001) single crystal foils are appropriate candidates for high-quality graphene growth and easy graphene transfer. Based on this, Prof. Ruoff's group put forward the feasibility of transferring graphene into ultrathin sp³-bonded carbon films on metal foils substrate.

Prof. Ruoff's group found that the synthesis of polymer precursor for sp³-bonded carbon materials was feasible. Chloroform was polymerized to form PHC (Poly(hydridocarbene)) by converting C-Cl to C-H using Samarium iodide (SmI₂) in THF. PHC is expected to have a hyperbranched structure with only C-H and C-C bonds, which can synthesize sp³-bonded carbon films by thermolysis.

HUANGDAO FORUM

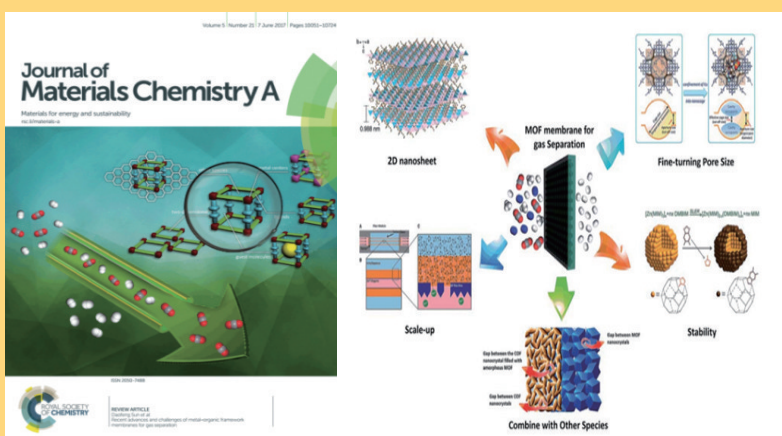
Research Findings by Prof. Sun Daofeng's Group of Functional Porous Materials Released on Journals of Royal Society of Chemistry

Recently, Prof. Sun Daofeng's group of Functional Porous Materials from College of Science made new findings on the research of functional porous material with four papers published on Journal of Materials Chemistry A, Chemical Communication, CrystEngComm and Analytical Methods.

Prof. Sun Daofeng and his group focus on design and preparation of functionalized MOF (metal organic framework) materials to realize specific properties in order to satisfy the present environmental and energy demands. As crystalline solids, MOFs are constructed of metal ions, or metal clusters, and organic ligands via a self-assembly route, and their architectures present marvelous 3D periodical network structures. Different from either inorganic porous materials or organic complexes, MOFs present both rigidity as inorganic materials

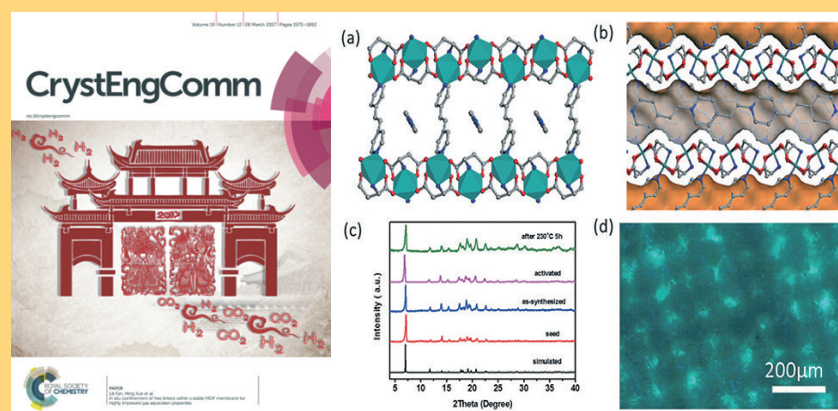
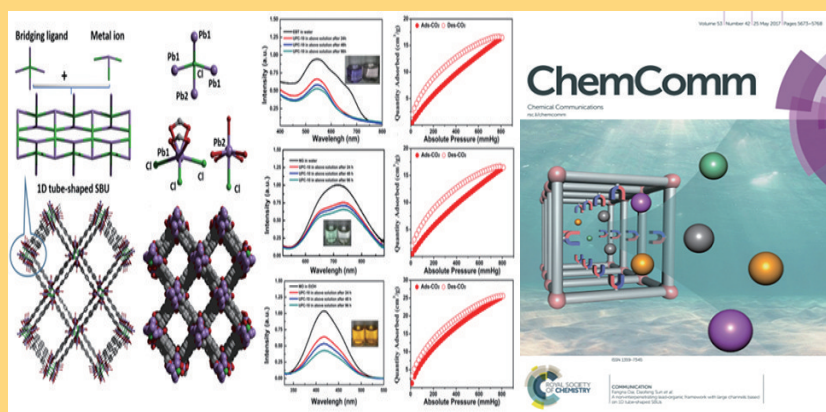
and flexibility as organic materials. Moreover, MOFs are the most porous materials having large specific surface areas and multiple active metal sites in their structures. These exotic structural properties enable the widely and successful applications of MOFs in gas storage, gas separation, selective catalysis, sustainable drug release, and bio-imaging, which makes MOFs especially significant to modern material research and have promising futures in chemical engineering due to the enormous potentiality. The recently published four cover literatures by Prof. Sun's group focus on environmental and energy issues, such as gas separation, pollutant sensing and removal, and provide both theoretical and technique support for the energy and environmental applications of MOFs.

The paper Recent advances and challenges of metal – organic framework membranes for gas separation was published on Journal of Materials Chemistry A. Gas separation is one of the most critical and



challenging steps for industrial processes, and metal – organic framework (MOF) membranes are potential candidates for this application. This review mainly focuses on the recent advances in improving the performance of MOF membranes, involving the issues faced with MOF designation and growth for practical applications. First, it discussed three strategies for permeability and selectivity enhancement of MOF membranes, in terms of obtaining ultra-thin two-dimensional (2D) MOF nanosheets, fine-tuning the pore size of the MOF framework and integrating with other species. Second, it reviewed the recent potential resolutions to the problems of MOF membranes for future practical applications including scale-up preparation and stability improvement. Finally, it summarized our work by providing some general conclusions on the state-of-the-art and an outlook on some development directions of molecule-sieving membranes.

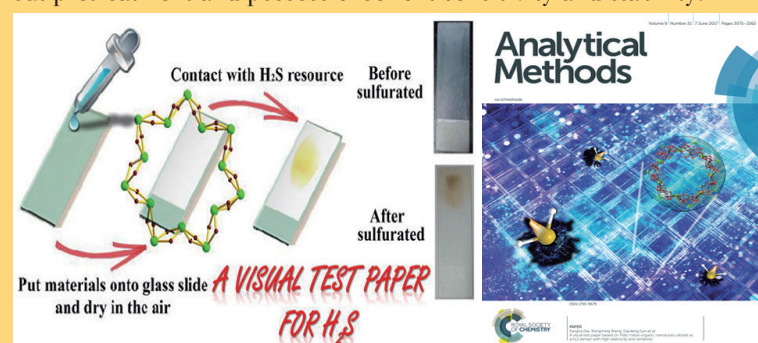
The paper A non-interpenetrating lead-organic framework with large channels based on 1D tube-shaped SBUs was published on Chemical Communication. The work presents the construction of a porous lead-organic framework (UPC-10) with large channels of ~ 24 Å. UPC-10 shows efficient adsorption of I₂ and selective adsorption of some dyes containing the SO₃[−] group. After the adsorption of dyes, UPC-10 exhibits a CO₂ gas uptake ability. Furthermore, UPC-10 could be transformed into PbS in a H₂S atmosphere, and the derived PbS manifests N₂ and CO₂ uptake abilities.



The paper In situ confinement of free linkers within a stable MOF membrane for highly improved gas separation properties was published on CrystEngComm. In the paper, A stable MOF membrane with guest molecules encapsulated in the pores by in situ synthesis has been successfully fabricated. The in situ confinement of linkers in the channels of the MOF membrane improves its gas separation properties, which may provide a general method for fine-tuning the pore size of MOF membranes and develop the functional applications of porous MOF materials.

The paper A visual test paper based on Pb(II) metal-organic nanotubes utilized as a H₂S sensor with high selectivity and sensitivity was published on Analytical Methods. The fluorescent Pb(II) – metal – organic nanotube, CD-MONT-2, which possesses a large {Pb₁₄} metallamacrocycle, is synthesized by a modified biphasic liquid – solid – liquid (BLSL) strategy. This strategy takes advantage of solid cyclohexanol to avoid generation of by-products, and is suitable for producing CD-MONT-2 on a large scale. Importantly, water-stable CD-MONT-2 can be easily made into H₂S test papers by coating a solution mixture of sodium carboxymethyl cellulose and CD-MONT-2' on glass plates, which have the characteristics of high efficiency,

rapidity, and visualization based on its fluorescence “turn-off” response. The CD-MONT-2 based visual test papers can be used without pretreatment and possess excellent sensitivity and stability.



Prof. Ren Shaoran's Group: New Findings on Unconventional Geothermal Resources Exploitation

Recently, prof. Ren Shaoran from College of Petroleum Engineering made new findings on the study of unconventional geothermal resources. Two papers, 'CO₂ injection for geothermal development associated with EGR and geological storage in depleted high-temperature gas reservoirs' and 'Geothermal exploitation from hot dry rocks via recycling heat transmission fluid in a horizontal well' were released by Energy.

Geothermal resources include conventional geotherma (like hot spring, magma) and unconventional geothermal (like Hot Dry Rock, deep high saline aquifer and HTHP stratum). China abounds in geothermal resources and has huge potential of geothermal exploitation.

In the paper 'CO₂ injection for geothermal development associated with EGR and geological storage in depleted high-temperature gas reservoirs', a novel concept technology of CO₂-HTGR system has been proposed to develop the geothermal energy in the depleted high-temperature gas reservoirs through CO₂ injection associated with EGR and geological storage. It also finds that CO₂-HTGR geothermal system has excellent heat mining performance and an effective CO₂-HTGR can be established through EGR and pressure recovery.

The paper 'Geothermal exploitation from hot dry rocks via recycling heat transmission fluid in a horizontal well' proposed a new method for geothermal exploitation from hot dry rocks by recycling heat transmission fluid in a horizontal well via a closed loop which can avoid the costly and complex hydro-fracturing. Besides, numerical simulation models were established to calculate the heat mining rate for the new technology to assess its technical and economic feasibility.

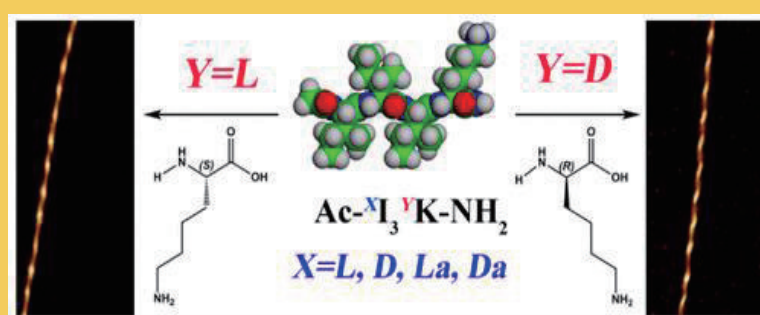
Sensitivity studies were performed to analyze the effects of various parameters on heat mining rate, including the injection rate, the horizontal segment length and the thermal conductivity of the tubing. The results showed that for low-temperature geothermal reservoirs, higher injection rate, longer horizontal wells and better thermal insulation of tubing can be applied to increase the heat mining rate.

Energy is an international, multi-disciplinary journal in energy engineering and research. It mainly covers the new achievements on the research of new energy, thermodynamics and interdisciplines. In recent years, prof. Ren's group has concentrated the research on unconventional geothermal resources and CO₂ utilization and has published a number of articles on Energy, Applied Energy, Journal of CO₂ Utilization, international Journal of Greenhouse Gas Control.

See more about the papers: <http://www.sciencedirect.com/science/article/pii/S0360544217301421>
<http://www.sciencedirect.com/science/article/pii/S0360544217305923>



JACS: How Molecular Chirality Affects Self-assembly



Peptide and protein fibrils have attracted an enormous amount of interests due to their relevance to many neurodegenerative diseases and their potential applications in nanotechnology. Although twisted fibrils are regarded as the key intermediate structures of thick fibrils or bundles of fibrils, the factors determining their twisting tendency and their handedness development from the molecular to the supramolecular level are still poorly understood. In this study, three pairs of enantiomeric short amphiphilic peptides have been designed: L I3 L K and D I3 L K, L I3 D K and D I3 L K, and L I3 L K and D I3 D K, and investigated the chirality of their self-assembled nanofibrils through the combined use of atomic force microscopy (AFM), circular dichroism (CD) spectroscopy, scanning electron microscopy (SEM), and molecular dynamic (MD) simulations. The results indicated that the twisted handedness of the supramolecular nanofibrils was dictated by the chirality of the hydrophilic Lys head at the C-terminus.

Recently, the research group of prof. Wang Jiqian and prof. Xu Hai from Center for Bioengineering and Biotechnology made great progress in the research of Molecular Chirality's Affects on Self-assembly. The finding Left or Right: How Does Amino Acid Chirality Affect the Handedness of Nanostructures Self-Assembled from Short Amphiphilic Peptides was published on JACS.

While their characteristic CD signals were determined by the chirality of hydrophobic Ile residues, MD simulations delineated the handedness development from molecular chirality to supramolecular handedness by showing that the β -sheets formed by L I3 L K, L I3 D K, and D I3 L K exhibited a propensity to twist in a left-handed direction, while the ones of D I3 D K, D I3 L K, and L I3 D K in a right-handed twisting orientation.

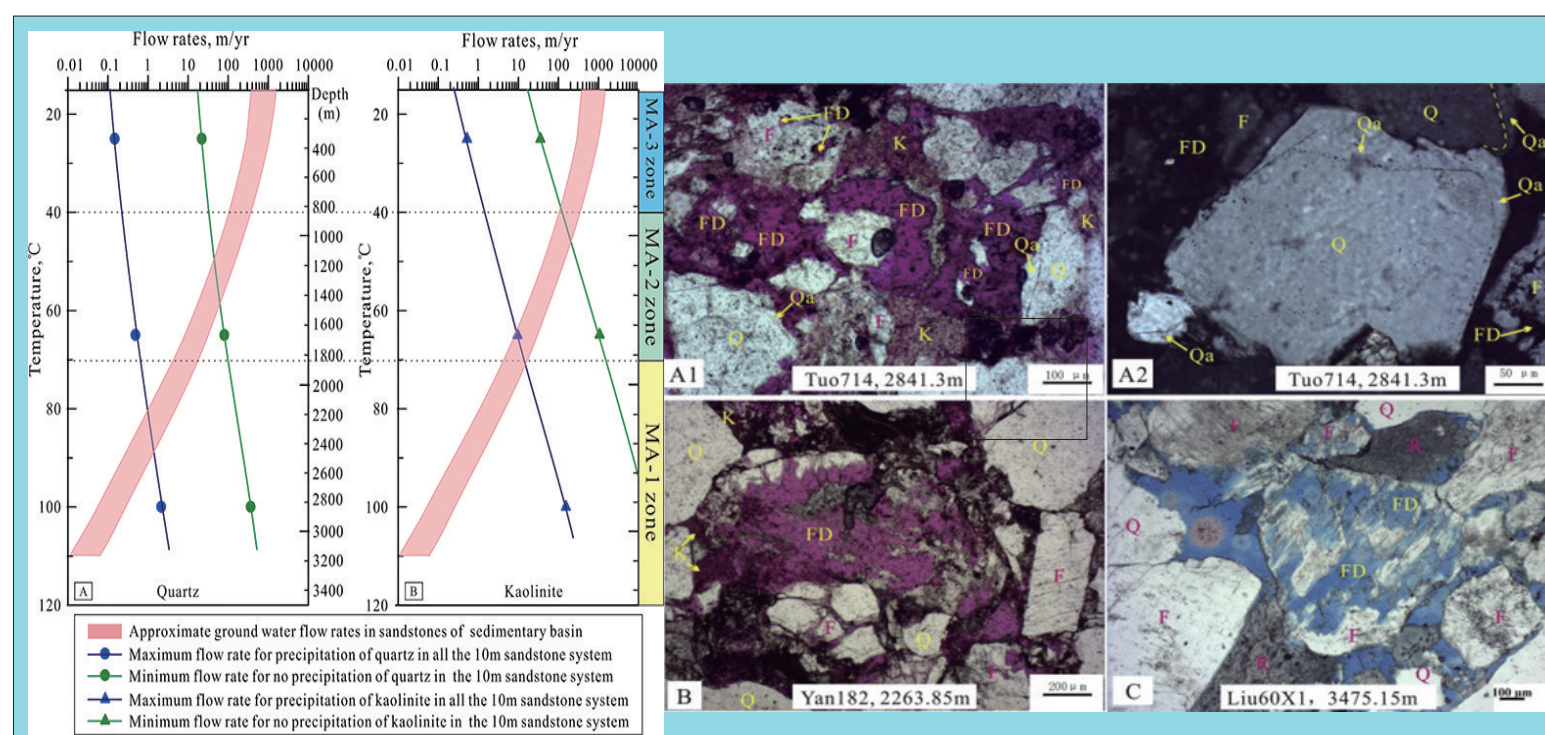
The research received supports from NSFC (Natural Science Foundation of China). The group of biological interface and biological material led by prof. Wang Jiqian and prof. Xu Hai has made a systematic study of Self-Assembly from Short Amphiphilic Peptides and has published 40 related papers on Biomaterials, Chem. Matter., ACS Appl. Mater. Interfaces, Chem Comm., Langmuir, Biomacromolecules, Chem. - Eur. J., Soft Matter, Chem. - Asian J.

Prof. Cao Yingchang's Group Made New Progress on the Research of Water-rock Interaction

Recently, the group led by prof. Cao Yingchang from School of Geoscience made new progress on the research of water-rock interaction. The paper Reactive transport modeling of coupled feldspar dissolution and secondary mineral precipitation and its implication for diagenetic interaction in sandstones was released by *Geochimica et Cosmochimica Acta*. The first author was postdoctor Yuan Guanghui.

Dissolution of feldspars and precipitation of secondary minerals (kaolinite, illite and quartz) are significant diagenetic processes in arkosic sandstones. The group examined moderately buried sandstones in the Eocene Shahejie Formation from

two sags in the Bohai Bay Basin, East China. In the paper, three different types of mineral assemblages (MA) were identified: extensively leached feldspars with a large amount of authigenic kaolinite and quartz cement (MA-1), extensively leached feldspars with a large amount of authigenic kaolinite and minor quartz cement (MA-2), and extensively leached feldspars with a small amount of both authigenic kaolinite and quartz cement (MA-3). Modeling results suggest that a dissolution zone, a transitional zone, and a precipitation zone can be formed in a sandstone unit with suitable constraints of temperature, flow rate, fluid composition and mineral reaction rate.



Comparisons between modeling results and observations of natural sandstone diagenesis suggest that an MA-1 assemblage is likely to occur in buried sandstones at high temperatures ($>70 - 80^{\circ}\text{C}$) and low flow rates. An MA-2 assemblage may occur in moderately buried sandstones at moderate temperatures ($40 - 70^{\circ}\text{C}$), in deeply buried sandstones with faults and fractures serving as conduits of meteoric freshwater, or in shallow sandstones where meteoric water is not abundant. An MA-3 assemblage tends to occur in shallow sandstones at low temperatures ($<40 - 50^{\circ}\text{C}$) and high flow rates, or in buried sandstones where faults and fractures develop widely and serve as freshwater conduits.

Dr. Carl Steefel, the deputy editor of *Geochimica et Cosmochimica Acta* and other peer review experts spoke highly of the research finding. These proposals are valid in natural arkosic sandstones and of great significance in deciphering the diage-

netic environments where the feldspar dissolution and secondary mineral precipitation have occurred.

In the past five year, with the support of national funds, prof. Cao Yingchang's group has conducted a number of studies on research of oil and gas basin diagenesis and has produced a series of research achievements with more than 40 papers published on *Geochimica et Cosmochimica Acta*, *AAPG Bulletin*, *Marine and Petroleum Geology*, *Sedimentary Geology*. Postdoctor Yuan Guanghui has pulished 20 papers on *Geochimica et Cosmochimica Acta*, *AAPG Bulletin*, *Marine and Petroleum Geology*, *Petroleum Science*.

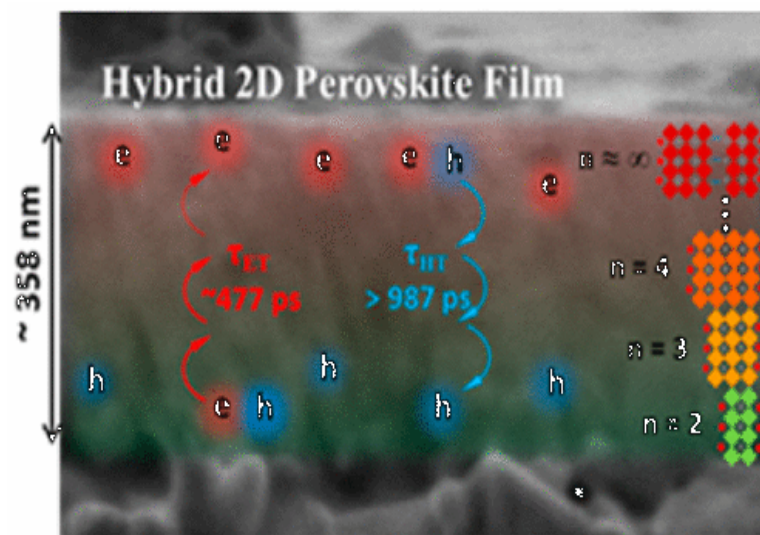
Geochimica et Cosmochimica Acta(GCA) is a biweekly peer-reviewed scientific journal published by Elsevier. It covers all aspects of terrestrial geochemistry, meteoritics, and planetary geochemistry.

Prof. Zhang Jun's Group Made New Findings on the Research of Hybrid Two-Dimensional Perovskite Films

Recently, the paper Observation of Internal Photoinduced Electron and Hole Separation in Hybrid Two-Dimensional Perovskite Films was published by JOURNAL OF THE AMERICAN CHEMICAL SOCIETY. It was co-finished by prof. Zhang Jun's group from School of Chemical Engineering and Jin Shengye's group from Dalian Institute of Chemical Physics, Chinese Academy of Sciences. The first author is Liu Junxue, a doctor candidate from School of Chemical Engineering.

Two-dimensional (2D) organolead halide perovskites have recently emerged as an attractive material for applications in photovoltaics and other optoelectronic devices. Recent reports have demonstrated that the 2D multi-layered perovskite films actually comprised multiple perovskite phases (with various n values from 1, 2, 3 and 4 to near ∞), even though the films were intended to be prepared as a single-phase. This hybrid feature seems to be ineluctable in fabricating 2D films. However, two important questions remain yet-to-be-answered: first, how the different perovskite phases align in the hybrid films; second, whether the band alignment between different phases induces energy funneling or instead charge separation. The latter is especially important because it dictates the application of these hybrid 2D perovskite films: energy funneling is useful for light-emitting applications, whereas charge separation would be more beneficial for light conversion or detection.

The research group led by Prof. Zhang Jun cooperating with Prof. Jin Shengye from Dalian Institute of Chemical Physics studied the charge carrier dynamics in 2D perovskite films, using ultrafast transient absorption and time-resolved photoluminescence spectroscopy. Researchers found that indeed multiple perovskite phases



with various n values co-existed in the 2D perovskite films, and more interestingly, these perovskite phases were naturally aligned in the order of n along the growth direction perpendicular to the substrate. Driven by the built-in band alignment between different perovskite phases, consecutive internal electron transfer from small- n to large- n perovskite phases and hole transfer in the opposite direction were observed in a film of ~ 358 nm thickness. This unique self-charge-separation property of the 2D perovskite films can facilitate their applications in photovoltaics and other optoelectronics devices.

The findings received a high opinion from the peer reviewers. It is of great importance to the development of optoelectronic devices and the field of perovskite. See more about the paper: <http://pubs.acs.org/doi/abs/10.1021/jacs.6b12581>

Findings on Ternary Mixed Metal Ni-Co-Fe Sulfides Reported by ElectrochimicaActa

Recently, the research finding Electrodeposition-Solvothermal Access to Ternary Mixed Metal Ni-Co-Fe Sulfides for Highly Efficient Electrocatalytic Water Oxidation in Alkaline Media, finished by Zhao Xin, an undergraduate from school of chemical engineering, was reported by ElectrochimicaActa.

Hydrogen production by water electrolysis is considered as clean and efficient approach to promising renewable energy to resolve energy crisis and severe environmental pollution from fossil fuels. It has been a hot topic in the field of new energy. The excellent OER electrocatalysts with low cost and high efficiency plays a key role in enhancing the overall efficiency of water electrolysis. In the paper, ternary mixed metal Ni-Co-Fe sulfides based on three dimensional (3D) nickel foam (NiCoFeS/NF) have been synthesized via facile electrodeposition-solvothermal process. Firstly, a uniform film of Co-Fe oxides has been electrodeposited on the surface of 3D skeleton of NF (CoFe/NF). Secondly, an ethanol solvothermal sulfurization has been adopted to convert CoFe/NF to ternary mixed metal sulfides (NiCoFeS/NF). XRD confirms that ternary NiCoFeS is composed of mixed phases including NiS, Ni₃S₂ and Co₃S₄ phases but no Fe sulfides phase, implying amorphous state of Fe sulfides. SEM images of ternary NiCoFeS films shows uniform film covering on the surface of NF, which is composed of

15 Papers by UPC Scholars Included by ESI Highly Cited Papers

According to ESI paper database released on Feb. 27, 51 papers written by UPC Scholars were included by ESI in the last ten year. In 2016, there were 15 papers on the list among which two were hot papers.

The fifteen highly cited papers involved six disciplines, engineering, environmental ecology, material, chemical engineering, computer science, interdisciplinary science.

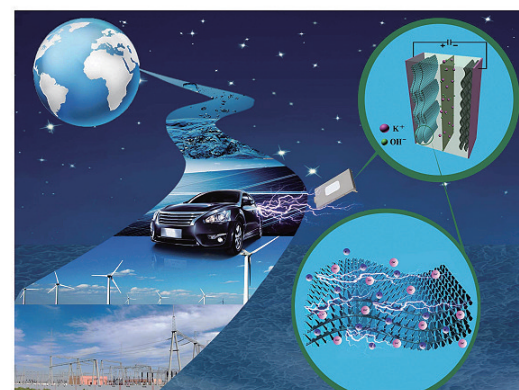
The Essential Science Indicators (ESI) database, launched by Thomson Scientific/ISI in 2001, is a compilation of statistical information (publication, citation, and cites-per-paper counts) for scientists, institutions, countries, and journals. It is based on 10 years of Thomson Reuters data. The ESI highly cited papers selects the top 1% of articles by total citations in each annual cohort from each discipline in the recent ten years and hot papers refers to the top 1% of articles by total citations in each annual cohort from each discipline in the recent two months and the articles published in the recent two years.

many hill-shaped bulges structures. The OER measurements confirm the excellent performance of ternary NiCoFeS/NF in 1.0 M KOH, providing low overpotential of 40 and 160 mV to drive 10 and 100 mA cm⁻² in 1.0 M KOH, respectively. A further enhancement of the stability of NiCoFeS/NF have been conducted via a secondary electrodeposition of Fe on NiCoFeS/NF to obtain NiCoFeS-Fe/NF, with slightly lower overpotential of 230 mV to drive 100 mA cm⁻² than that (310 mV) of NiCoFeS/NF after stability test.

Postgraduate Student Du Dongfeng Published Cover Paper on JMCA

Recently, Mr. Du Dongfeng, a postgraduate student from college of science, China University of Petroleum, published a cover paper entitled "Remarkable supercapacitor performance of petal-like LDHs vertically grown on graphene/polypyrrole nanoflakes" in the Royal Society of Chemistry journal, *Journal of Materials Chemistry A* (2017, 5, 9422–9422).

Nowadays, with the growing energy demand, there is an urgent need to develop clean, efficient, low cost and sustainable new energy storage devices. Supercapacitor with the characteristics of high power, high capacity, short charging time, long cycle life and wide working temperatures, has received widespread attentions. The electrode material of supercapacitor is a key to its energy storage performance. Based on energy storage mechanisms, electrode materials used in supercapacitor can be divided into electric double layer capacitor materials and faraday capacitor materials. The electric double layer capacitance materials have good conductivity and cycle stability, but very limited charge storage capacitor. By contrast, the faraday capacitance materials have very high charge storage capacity, but low conductivity and cyclic stability. Working alone, neither of these two kinds of materials can perform well. Accordingly, combining the electric double layer capacitance and faraday capacitance materials is the key to further improve the capacitive performance.



Highlighting research by the groups of Prof. Xing and Prof. Yan at the China University of Petroleum.

Remarkable supercapacitor performance of petal-like LDHs vertically grown on graphene/polypyrrole nanoflakes

A 3D graphene/polypyrrole/LDH composite exhibits ultrahigh specific capacitance, excellent rate performance and remarkable cycle life due to the synergistic effects among its components.

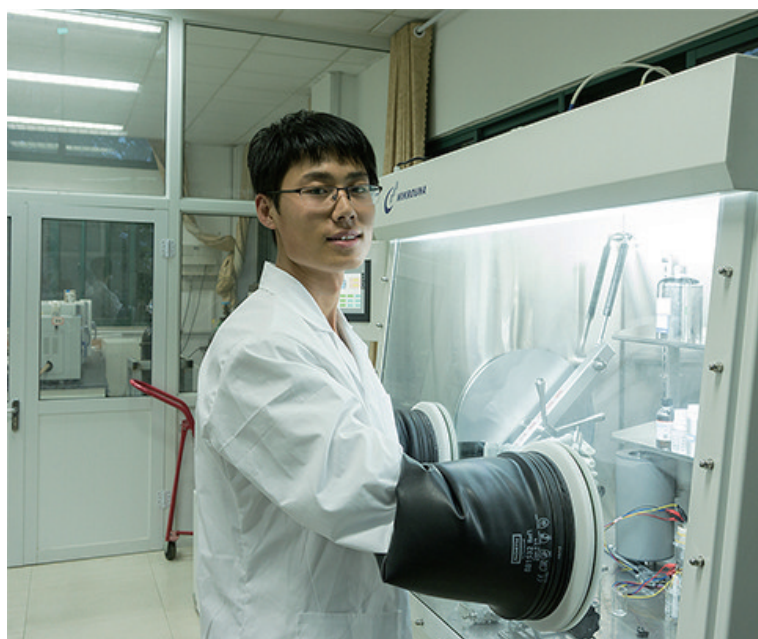
As featured in:



See Wei Xing, Zifeng Yan et al., *J. Mater. Chem. A*, 2017, 5, 8964.



rsc.li/materials-a
Registered charity number: 207890

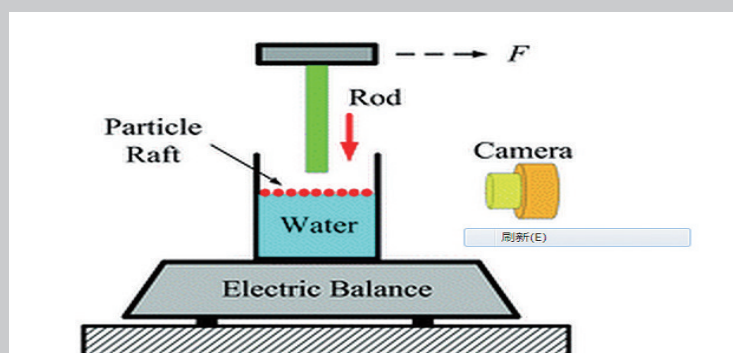


Mr. Du synthesized a new type of three-dimensional layered double hydroxide metal/graphene/polypyrrole composite using cheap transition metal hydroxide and graphene/polypyrrole. The structure and morphology of this three-dimensional composite were optimized and well controlled.

Moreover, the paper revealed the synergetic enhancement effect among layered double hydroxide, graphene and polypyrrole. As a substrate, the graphene/polypyrrole not only provides fast electron transport channel, but also contributes to form stable metal hydroxide/polypyrrole interface, which is vital for the cycle stability of this material. At the same time, layered double hydroxides with thickness of 3–5 nm are uniformly vertical distributed on the surface of the graphene/polypyrrole, which can not only effectively restrain the aggregation of conductive substrates, but also provide a large number of electrochemical reactive sites. This special structure enables the material ultrahigh capacitance (2395 F/g, close to its theoretical capacity), excellent power characteristic and excellent stability (almost no decay after 10,000 cycles). In addition, the material can also be used directly as a model material to electrochemical sensors, storage batteries, photoelectric catalysis and other related fields.

Research on Particle Raft Cover-reported by Soft Matter

Recently, *Soft Matter* made a cover report of the new finding on particle raft. The paper The load-bearing ability of a particle raft under the transverse compression of a slender rod was written by Zuo Pingcheng, a postgraduate student from Collge of Pipeline and Civil Engineering. The corresponding author is prof. Liu Jianlin.



Soft Matter is published by the royal society of chemistry, covering the fundamental science underpinning the behaviour of soft matter which is a subfield of condensed matter comprising a variety of physical systems that are deformed or structurally altered by thermal or mechanical stress of the

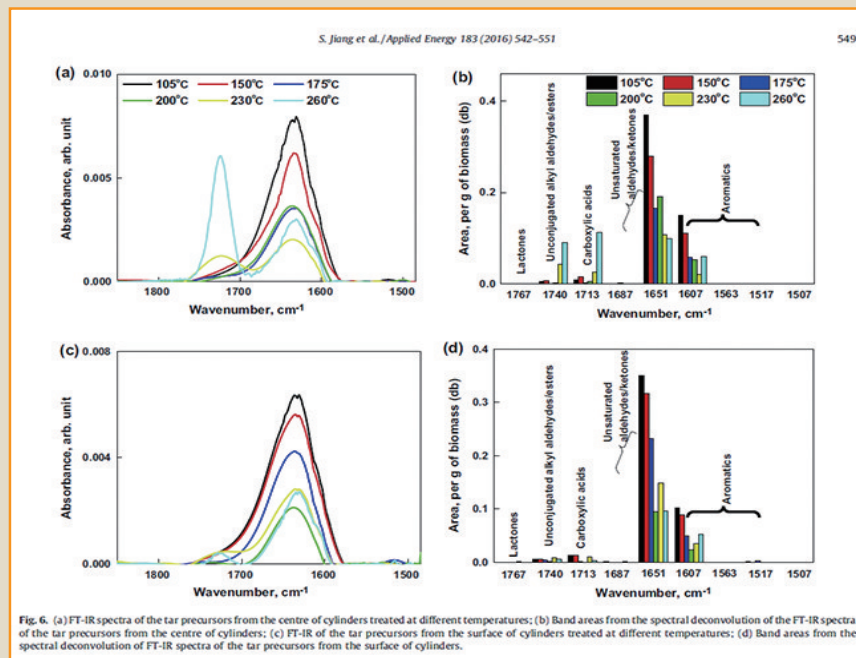
magnitude of thermal fluctuations. The concept of soft matter was established by Pierre-gilles de Gennes, the nobel prize in physics in 1991. It includes liquids, They include liquids, colloids, polymers, foams, gels, granular materials, liquid crystals, and a number of biological materials. Many materials in daily life, like pitch, foam and blood, are soft matter.

Liquid marbles and particle rafts are liquid interfaces covered with tiny particles. The study explores the load-bearing ability of a particle raft under the transverse compression of a slender rod. The experiments find that the surface tension of the particle raft is almost the same as that of water, but the equivalent contact angle of the rod attached to the particles is greatly enhanced. The model of an axisymmetrical rod pressing liquid is built. The finding will be beneficial to the measurement of mechanical behaviors for soft interfaces, separation of oil and water, flotation in minerals, and design of miniature boats.

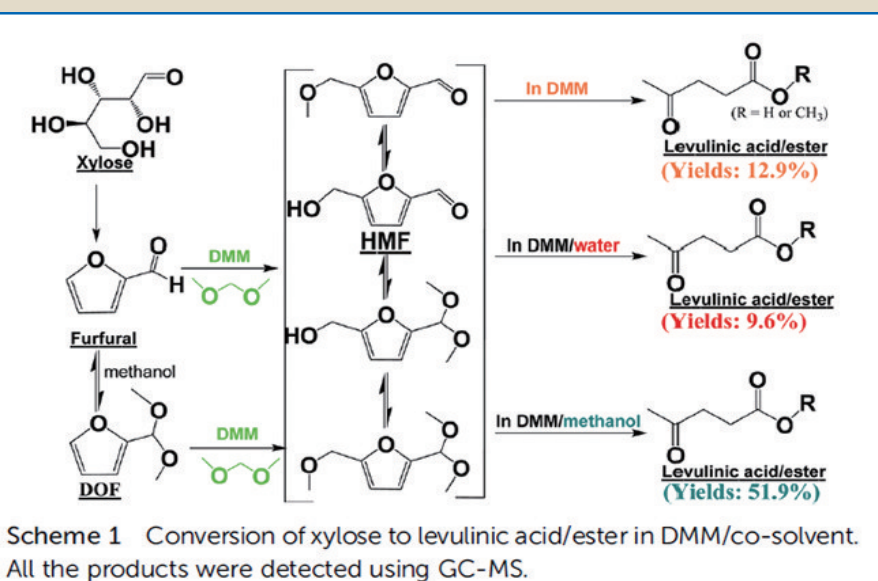
Jiang Shengjuan Made New Findings on the Research of New Energy Chemistry and Technology

Recently, Jiang Shengjuan, the doctoral student from College of Chemical Engineering made new findings on the research of new energy chemistry and technology which has been reported by Applied Energy, Chemical Communications and Fuel Processing Technology.

The paper Formation of aromatic ring structures during the thermal treatment of mallee wood cylinders at low temperature was released on Applied Energy. Aromatics are important components in the tars from biomass gasification or in bio-oil from pyrolysis. This study investigated the formation of polycyclic aromatics during the thermal treatment of mallee wood at low temperature. The formation of tar was negligible below 200 °C but became significant above 230 °C. At the same time, the abundance of aromatics also became significant above 230 °C. In addition, it was found that some aromatics were formed even at temperatures as low as 150 °C. These aromatics were trapped in the resultant chars but could be extracted with solvents (i.e. methanol/chloroform). The abundance of trapped aromatics was different between the outer surface and the centre of the char (cylinder shape). FT-IR and UV-fluorescence analysis revealed that the aromatics contained polar functionalities (e.g. carbonyl groups) on



on the benzene rings. Some unsaturated hydroxyl aldehyde/ketone intermediates were formed in parallel with the aromatics.



The paper Effect of thermal pretreatment and ex-situ grinding on the pyrolysis of mallee wood cylinders was released on Fuel Processing Technology. The study investigated the effects of thermal pretreatment and ex-situ grinding on the production of bio-oil and biochar from the pyrolysis of mallee wood cylinders in a fluidised-bed reactor. The wood cylinders were firstly pretreated at 150 – 380 °C and were then crushed into small particles before further pyrolysis at 500 °C. Thermal pretreatment alone for wood cylinders could not promote the bio-oil yield. It finds that low temperature treatment with ex-situ grinding greatly promoted bio-oil formation, and high temperature treatment compromised beneficial effects of grinding on bio-oil yield. The balance between thermal pretreatment and grinding needed to be delicately managed to maximise the formation of bio-oil. The pretreatment temperature would significantly affect the composition of bio-oil from the ex-situ grinding pyrolysis. The controlled pretreatment temperature could somewhat “activate” lignin or cause cross-linked bonds in

The paper One-pot conversion of biomass-derived xylose and furfural into levulinate esters via acid catalysis was released on Chemical Communications. Direct conversion of biomass-derived xylose and furfural into levulinic acid, a platform molecule, via acid-catalysis has been accomplished for the first time in dimethoxymethane/methanol. Dimethoxymethane acted as an electrophile to transform furfural into 5-hydroxymethylfurfural (HMF). Methanol suppressed both the polymerisation of the sugars/furans and the Aldol condensation of levulinic acid/ester.

biomass which was responsible for the formation of aromatics.

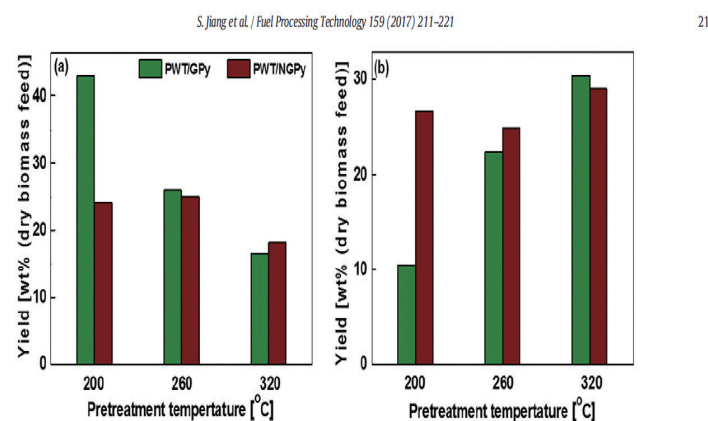


Fig. 2. The total heavy bio-oil and biochar yields (based on “dry biomass feed”) from the thermal pretreatment at 200, 260 and 320 °C and subsequent pyrolysis at 500 °C with and without ex-situ grinding. (a) Yield of heavy bio-oil; (b) Yield of biochar.

See more information about the papers:

<http://www.sciencedirect.com/science/article/pii/S0306261916313149>

<http://pubs.rsc.org/-/content/articlehtml/2017/cc/c7cc01078h>

<http://www.sciencedirect.com/science/article/pii/S0378382016310311>

Prof. Han Tongcheng was selected into the Recruitment Program for Young Professionals

Recently, the organizing department of the Central Committee of the Communist Party of China released the list of 13th Recruitment Program for Young Professionals. Prof. Han Tongcheng from School of Geoscience, China University of Petroleum was on the list.

Prof. Han Tongcheng recieved his doctor degree from University of Southampton. He worked as research assistant in the first institute of oceanography, State Oceanic Administration from 2010–2013. Since 2013, he has been a fellow of Commonwealth Scientific and Industrial Research Organisation, CSIRO. He has won Dorothy Hodgkin Postgraduate Award and EAGE Scholarship. He concentrates his research on acoustic and electrical properties of reservoir medium, which has provided experimental and theoretical basis for seismic and CSEM inversion and has published 12 SCI papers on Tectonophysics, Geophysical Journal International, Geophysics and made presentations for ten times in international conferences, such as SEG, EAGE.

The Recruitment Program for Young Professionals is under the guidance of the organizing department of the Central Committee of the Communist Party of China. Applicants should be engaged in scientific researches and below the

age of 40, and possess a PHD degree granted by prestigious overseas universities, with formal teaching and researching positions in overseas universities or enterprises. Besides, a total of 500,000 RMB shall be granted to the winners of the program. Research subsidies, varying from 1 million to 3 million RMB, shall be allocated in batches throughout the process of the program according to the level and quality of the program.



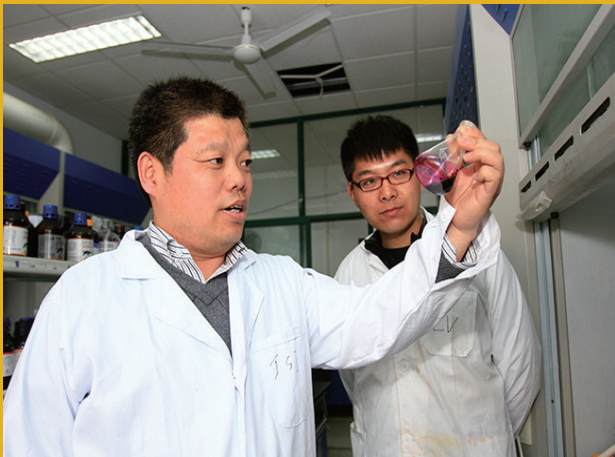
Three Professors Selected as Elsevier Most Cited Chinese Researchers

Recently, Elsevier released the list of 2016 Most Cited Chinese Researchers. The list covered 1776 Chinese scholars of highest international influence. Three professors of UPC were on the list, Jiang Daqing (professor of Mathematics, School of Science), Sun Daofeng (professor of Physics and Astronomy, School of Science), Dang Hongyue (professor of Immunology and Microbiology).

Prof. Jiang Daqing is from School of Science. He works as the director of the team of astochastic different equation. His research interest are epidemic model and Stochastic mathematical model.



Prof. Sun Daofeng is from School of Science. He has focused his research on energy environment and related area and published more than 1000 SCI papers, with H factor reaching 38.



Prof. Dang Hongyue worked in UPC from 2008–2013. His research interest are Marine microbiology, molecular ecology, biogeochemistry, biogenic element cycling.

2016 Elsevier Most Cited Chinese Researchers was based on its database Scopus, which is the largest abstract and citation database of peer-reviewed literature, covering scientific journals, books and conference proceedings. The database has a comprehensive overview of the world's research output in the fields of science, technology, medicine, social sciences, and arts and humanities.

Zhang Wenwei: Connecting the World by Oil-gas Pipelines

Zhang Wenwei is the engineer-in-chief of the designing institute, China Petroleum Pipeline Engineering co., LTD. She was the alumna of oil field equipment from the class of 1987, China University of Petroleum. On May 14, she was invited to make a presentation on CCTV special program of ‘Belt and Road Forum for International Cooperation’. She designed the west-east gas transmission pipeline at the age of 31 and directed the design work of projects of Sino-Myanmar Pipeline, Central Asia Pipeline and Sino-Russian Pipeline which have greatly promote the energy development of the surrounding countries and China.



The West - East Gas Pipeline is a set of natural gas pipelines which run from the western part of China to the east. It is the 4,000 kilometres (2,500 mi) long pipeline running from Xinjiang to Shanghai. The pipeline passes through 66 cities in the 10 provinces in China. Natural gas transported by the pipeline is used for electricity production in the Yangtze River Delta area. Zhang Wenwei took the charge of engineering design of the pipeline. With her most efforts and persistence, she completed the design of the pipeline and for her excellent work, she was awarded by the country.

Sino- Myanmar pipeline is the oil and natural gas pipelines linking Myanmar’s deep-water port of Kyaukphyu (Sittwe) in the Bay of Bengal with Kunming in Yunnan province of China. It is the most difficult pipeline for its harsh geographical conditions. Zhang Wenwei and her team succeeded in overcoming all challenges and found the best plan for the pipeline. The pipeline has brought great changes to the countries along the route. The power problem of Myanmar has been solved with nearly two billion cubic metres of gas and two million tons piped every year.

The Central Asia - China gas pipeline (known also as Turkmenistan - China gas pipeline) is a natural gas pipeline system from Central Asia to Xinjiang in China. It is the first transnational pipeline designed by China and the first pipeline to bring Central Asian natural gas to China and highlights China’s quest for Central Asian energy exports. The work was under the cooperation of designers from China, Kazakhstan and Uzbekistan. Zhang Wenwei is one of them and she tried to find most optimal design for

the pipeline. The pipeline helped China in meeting its energy demands and stabilizes the country’s overall consumption structure.

So far, design technologies used by Zhang Wenwei have been applied to more pipelines and more are being built in Africa, South America and Southeast Asia. As Zhang Wenwei said, with the strategic support of Belt and Road, Chinese pipelines will be found in more countries and connect the whole world.

Lyu Jian Nominated as Chinese College Student of the Year

Recently, the result of the 12th Chinese College Students of the Year was released. In all, ten students from the whole country won the title of Chinese College Students of the Year and 39 students got nominated. Lyu Jian, was on the list of the nomination.

Lyu Jian is a graduate student from College of Petroleum Engineering. He has great passion in social activities and entrepreneurship and made great achievements during his college life. He founded a team of volunteering teaching. In 2011, he won the bronze model in the national competition of chinese college students entrepreneurial plan. In 2013-2014, he took up a internship in FRAC and chose to back in 2015 for furth study in China University of Petroleum in spite of a well-paid job at abroad. In 2016, with partners, he set up Sunmaker Energy Group (Qingdao), which has done contributions to the energy and education development of those countries under the strategy of One Belt and One Road.

Chinese College Students of the Year, launched by Publicity Department of the Communist Party of China and Ministry of Education, was to praise and encourage outstanding college students who have performed excellency in study, work and social activities. It has displayed the active attitude and action of Chinese College Students and greatly pushed forward the healthy growth of college students around the country. Lyu Jian(the second from the right)



Li Rupeng Won the National Scholarship
and was Reported by People's Daily



Recently , Li Rupeng, an undergraduate student from School of Petroleum Engineering, won the national scholarship and was selected into the award list of national scholarship. His story was also covered by People's Daily.

Li Rupeng, a senior student, has performed very well in his learning. In the past three years, he has got the first place in course credit and comprehensive assessment, with excellence courses accounting for 82.05% and IELTS 7.5. Besides, he is also active in participating practical activities, such as attending academic competition and doing extra-curricular work. He has won the fourth place of SPE Asia Pacific Regional Student Paper Contest and Honorable Mention in MCM (Mathematical Contest In Modeling). In 2016, he was invited to participate the tenth International Petroleum Technology Conference (IPTC) held in Bangkok. At present, he is doing his graduation thesis in University of New South Wales.

The national scholarship is designed to encourage and support outstanding college students who are excellent in learning, practice and personality. Every year, about 50, 000 students from the whole country will win the award. This year, 108 student among them were selected as models and reported by People's Daily, which is the biggest official newspaper group in China.

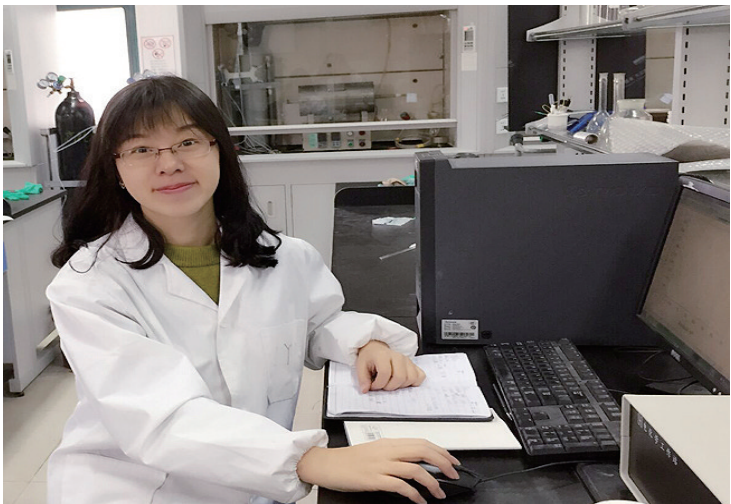
Liu Yanru Selected as 2017 Top Ten Excellent College Students
of Shandong Province

Recently, the University Committee of Shandong Province released the result of 2017 Top Ten Excellent Students of Shandong Province. Liu Yanru from China University of Petroleum was on the list.

Liu Yanru is a doctor candidate from College of Chemical Engineering. Her research area is catalytic material of nano-structure transition-metal sulfide and its compounding, assembling and its application in energy conversion. Liu has great passion in scientific work and is committed to her academic career. In recent years, she has won a number of awards and honors, such as national scholarship of doctor candidates, outstanding graduate student. Through her efforts, she has published 11 SCI papers, with impact factor reaching 38.85 as the first author and made oral presentations on international conferences. Besides, she also works as the reviewer of Adv.

Funct. Mater., ACS Catal., ACS Appl. Mater. Inter., Carbon.

The award Top Ten Excellent Students of Shandong Province is launched by University Committee of Shandong Province and Shandong Education Television. It is established to encourage more college students to learn from outstanding students, study harder and make difference in the social development.



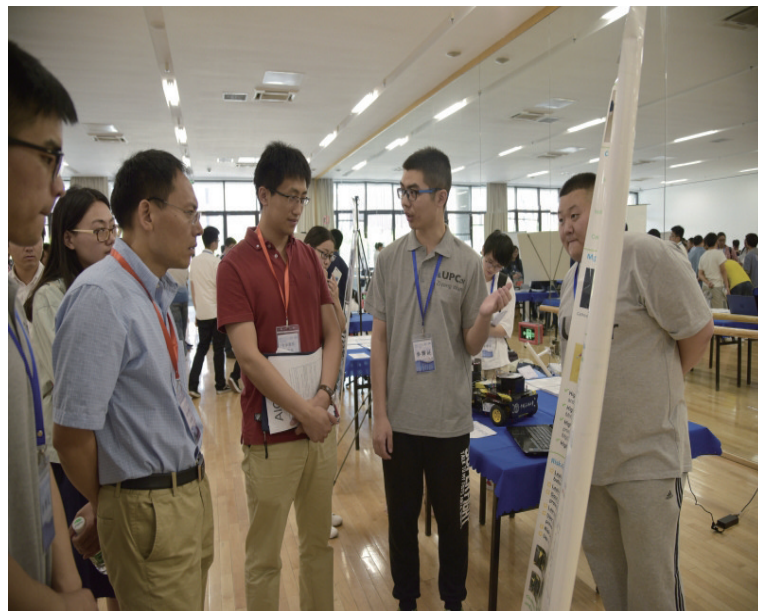
UPC Won Best Design Award of the First Chinese Chem-E- Car

From June 2 to 4, the first Chinese Chem-E- Car was held in Tianjian University. The team from China University of Petroleum won the best design award of Chemical Car Poster Contest. The team was composed of 14 undergraduate students majoring in Chemical Engineering, Machinery Manufacturing and Material Chemistry.



Chem-E- Car is an annual college competition for students majoring in Chemical Engineering organized by AIChE (American Institute of Chemical Engineers). It is aimed at proving the creative imagination and practice ability of chemical engineering students. On December, 2016, the committee of Chem-E-Car of Chinese College Students

was established and since then, Chinese Chem-E-Car competition was launched. This year, students from twenty colleges and universities participated the competition. The contest includes poster and running race. College students must design small-scale automobiles that operate by chemical means, along with a poster describing their research. They must drive their car a fixed distance down a wedge-shaped course in order to demonstrate its capabilities. The size of designed cars cannot exceed certain specifications and cars must operate using green methods, which do not release any pollution or waste in the form of a visible liquid or gas, such as exhaust.



UPC Participated the Cooperation Meeting of Qingdao-ASEAN

Recently, the cooperation meeting of Qingdao-ASEAN was held in Qingdao. The directors from foreign affairs offices of Shandong province and Qingdao city, Education Department and Business Department of Qingdao city attended the meeting and made discussions about cooperation issues of the two sides. Wang Yong, the deputy secretary of China University of Petroleum was invited to the meeting and made a speech.

Yang Xiuping, the secretary general of China-ASEAN Center introduced the main jobs and obligations of the center. She hoped that, bases on its open policy, Qingdao would do more works to strengthen the partnerships with the ASEAN countries and more programs and fields will be developed and collaborated between the two sides.

On behalf of the universty, Wang Yong delivered a speech. As he said, since it joined China-Asean education training union, the university has made great contributions to communications. More teachers will be encouraged to take participate in scientific and technological cooperation.

DSH Test Held in UPC

On May 12, DSH (Deutsche Sprachpruefung fuer den Hochschulzugang auslaendischer Studienbewerber) was held in UPC. 86 college students from all over the country took the test, among whom 56 were from China University of Petroleum. The whole process was under the monitor and finally, 41 students successfully passed the test.

DSH is a language examination which tests whether students are qualified to take on studies in Germany. The exam includes written and oral forms. At present, in all, there are 16 oversea DSH testing center. China University of Petroleum has built partnerships with German universities and this year, 13 students have gotten the letter of admission of RWTH Aachen.

UPC Got Good Results in 2017MCM/ICM

Recently, 2017 MCM/ICM revealed the result. 80 teams from China University of Petroleum participated the contests and finally won 9 Meritorious Winners and 35 Honorable Mentions.

MCM (Mathematical Contest In Modeling) is one of the most outstanding international contest for high school students and college undergraduates. Teams of students will clarify, analyze and propose solutions to open-ended problems in the contests. it attracts diverse students and faculty advisors from over 900 insitutions from the world. The Interdisciplinary Contest in Modeling (ICM) is an extension of the Mathematical Contest in Modeling (MCM). It is designed to develop and advance interdisciplinary problem-solving skills as well as competence in written communication.

This year, there were 16928 teams from over ten countries to attend the contest. it set up six classes of the results, that is Outstanding Winner(0.2%), Finalist Winner (0.3%), Meritorious Winner(9%), Honorable Mention(38.2%), Successful Participant (52%), Unsuccessful Participant(0.3%).

ACTIVITY

The 3rd Petro-Gathering: China International Student Petroleum Forum Held

From June 30 to July 2, the 3rd Petro-Gathering: China International Student Petroleum Forum was successfully held in China University of Petroleum. More than 100 students from 18 universities at home and abroad, including Beijing University, Imperial College London, participated in the forum.



Under the guidance of SPE Asia Pacific Chapter and organization of China University of Petroleum, the forum offered series of activities with thesis competition, ‘Frac’ Frac-fluid challenge, Schlumberger software competition, SPE Talk, SPE Workshop, Company Culture Exhibition, which have greatly inspired the creative thinking and international communication. \On the SPE TALK, scholars were invited to share their ideas on the topic of impact of American shale revolution and transformation of traditional energy. Studens has learned the newest information about petroleum development and research.

Launched in 2014, the forum has played a key role in the exchange and communication for petroleum students. It gives high priority to practice and innovation which make student open mind and be more global.

UPC hosted Chinese Session of 2017 AIChE Spring Meeting and 13th Global Congress on Process Safety

From March 27 to 29, 2017 AIChE Spring Meeting and 13th Global Congress on Process Safety was held in San antonio of Texas. The Center of Safety&Environmental Protection and Energy-Saving Technology of UPC hosted Chinese session. Prof. Zhao Dongfeng acted as the chairman of the session. The team of College of Chemical Engineering led by prof. Yang Chaohe attend the congress. More than 60 experts took part in the session. Chinese scholars gave presentations on the topics of dangerous chemicals storage, city refinery, accident analysis and safety engineering. The session also served as the platform of personnel recruitment which has attracted three doctorate researchers who have interests in working in UPC and will have more cooperations with the university in the future. Through discussion and communication, ideas of Chinese process safety got known by the the world, which will be good for the development of process safety in China. The AIChE Spring Meeting is the year’s key technical

conference for practicing chemical engineers. A wide range of subjects relevant to the current needs of industry is covered. The Global Congress on Process Safety covers the critical needs of process safety practitioners more broadly and deeply than any other conference. Up to today, UPC has hosted Chinese session for five times. This year, the fifth CCPS China Process Safety Congress will be held in Sept. Nanjing.



ACTIVITY

The Summer Camp for College Student Journalists across the Strait Kicked off

On July 17, the summer camp for college student journalists across the Straits kicked off in china univer- sity of petroleum. 18 student journalists from Taiwan University, National Tsing Hua University, Yuntech, Lunghwa University of Science and Technology and China university of Petroleum attended the opening ceremony. With the theme of "discovering: Qilu Cul- ture and Taiwan Culture", the campy is to exchange the different cultures and promote the frienship be- tween young students across the Strait.



After the ceremony, the students visited the west coast exhibi- tion center, to learn more about the development of the west coast and, and make a tour of Langya Tai, the famous culture spots in Qingdao. In the following week,other colorful activities will be held. taiwan students will experience chinese online shopping, ali- pay and ofo bicycle and local cultures and customs.



UPC Table-tennis Team Visited Singapore Universities

On July 2, the table tennis team of Chi- na Universiy of Petroleum paid visit to Singapore universities and made commu- nications with students about Chinese Ping-Pong culture. During the visit, the team visit to Nan- yang Technological University, Universi- ty of Singapore and Temasek Polytechnic and played 40 friendly matches with their teams. They also discussed about the future communications, such as stu- dent exchange, holding competitions.



International Students Celebrated Spring Festival with Local People

During Chinese Spring festival, about 50 international students of UPC celebrated the special days with the local people. They experinced Chinese new year customs and learned folk crafts, such as Chinese paper cutting and couplets writing, from the folk artists.



Experience China in Charming Qingdao

Recently, the activity-Experience China in Charming Qingdao was successfully held. It was organized by CSC(China Scholarship Council), China University of Petroleum and Shandong University of Science and Technology. 90 international students from the two universities joined in the event.

Students paid visits to Haier Industrial Park located in Laoshan District of Qingdao, Planning Exhibition Hall of Qingdao West Coast, the eco-tourism park of Qingdao West Coast. They also experienced tea picking in the ancient town of in Haiqing. The event has provided a good opportunity for international students to learn more about the local customs and cultures.

The event Experience China is a series of activity launched by China Scholarship Council through which international students in China would have a better understanding of Chinese traditional cultures and modern achievements.



