



CHINA UNIVERSITY OF PETROLEUM

NEWSLETTER

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UPC Furthered Cooperation with ENSTA Bretagne

UPC had conducted a long-term cooperation with ENSTA Bretagne, which had achieved remarkable results. Eliane FONSECA also thought highly of UPC students studied in ENSTA Bretagne. Both Zha Ming and Eliane FONSECA expressed expectation for further expanding cooperation areas, such as scientific research, academic communication, exchanges of students and professors and joint training project. During the visit, Eliane FONSECA visited some laboratories, History Museum of UPC, and delivered a speech on information technology.



Founded in 1989, ENSTA Bretagne, which is evolved from National Higher College of Maritime Engineering, is situated in Brest, the center of European maritime scientific center. It is engaged in relative research and development on networks and telecommunications, Structural Mechanics for Ships and Ocean Engineering.



Recently, a delegation led by Vice-President Zha Ming took visits to Russian universities, including Gubkin Russian State Oil and Gas University, Perm National Research Polytechnic University and Perm State University. During the visits, the delegation was invited to the eighty-fifth anniversary celebration of Gubkin Russian State Oil and Gas University.



As a result of the communication, the delegation got comprehensive understanding of

the three universities' teaching and scientific research level in the area of higher education, as well as their experiment and practice condition. Meanwhile, they held talks about faculty and researcher exchange, scientific project cooperation, student exchange visits, the planning and construction of Confucius Institute, and reached agreements on these issues.

Besides, the delegation also visited Education Departments of the Chinese Embassy in Russia, the Perm municipal government, the Confucius Classroom at Perm No.2 middle school and held discussions about cooperation issues.

UPC Strengthens Partnership with Edmonton, Canada and Missouri University of Science and Technology

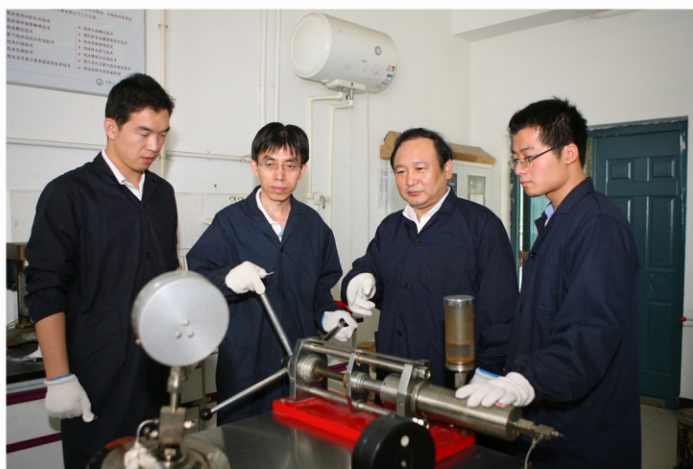
On April 3, a delegation led by Don Iveson, Mayor of Edmonton, Canada paid a visit to UPC, accompanied by related officials of Qingdao Foreign Affairs Office and Qingdao Sinoenergy CO. LTD. Vice-president Zha Ming and related leaders from School of Petroleum Engineering, College of Chemical Engineering and International Office had a discussion and exchanged ideas with the delegation on further cooperation, and finally reached a consensus.

Meanwhile, Vice-presidents of Missouri University of Science and Technology Warren K. Wray and Laura Stoll, as well as director of International student admissions office of Missouri S&T Julie Myer paid a visit to UPC. UPC president Shan Honghong and vice-president Zha Ming held talks with the guests about faculty exchange, students joint-training and academic exchange and reached agreements on these issues.

An Interview with Li Zhaomin from International Innovation: Research on Foam and Nanoparticles System

Recently, International Innovation, a well-known international academic journal, published the interview with professor Li Zhaomin and spoke highly of his study of foam and nanoparticles system.

stated, “Based on this theoretical research, the team has invented a series of methods and technologies for oil and gas developments with foam, which range from stimulation, well workover and completion to profile control, and enhanced oil recovery. These technologies have been widely used in the oil field and have achieved amazing results.



The research team led by professor Li Zhaomin published numerous academic papers regarding the synergy between nanoparticles and surfactant, stabilization mechanism of nanoparticles and flooding features of nano-foam system, which aroused great attention from International Innovation.

During the past twenty years, the joint laboratory on foam fluid technology of UPC has conducted intensive research about enhanced oil and gas recovery using foam fluid, efficient develop mode for superheavy oil reservoir and enhanced oil recovery using supercritical carbon dioxide. Professor Li Zhaomin has been nominated for the Eni Award for 3 consecutive years .

New Breakthroughs on The Studies of Carbon Quantum Dots by Wu Mingbo's Group got Published by Angewandte Chemie

Recently, new breakthroughs on the studies of carbon quantum dots (CQDs) were made by Wu Mingbo's Group of College of Chemical Engineering. The paper "Cu-N Dopants Boost Electron Transfer and Photooxidation Reactions of Carbon Dots" has got published by Angewandte Chemie International Edition.

In the article, the group report the preparation of Cu-N-doped CDs (Cu-CDs) and investigate both the doping-promoted electron transfer and the performance of the CDs in photooxidation reactions. The Cu-N doping was achieved through a one-step pyrolytic synthesis of CDs with $\text{Na}_2[\text{Cu}(\text{EDTA})]$ as precursor. As confirmed by ESR, FTIR, and X-ray photoelectron spectroscopies, the Cu species chelates with the carbon matrix through Cu-N complexes. As a result of the Cu-N doping, the electron-accepting and -donating abilities were enhanced 2.5 and 1.5 times, and the electric conductivity was also increased to $171.8 \mu\text{S cm}^{-1}$. As a result

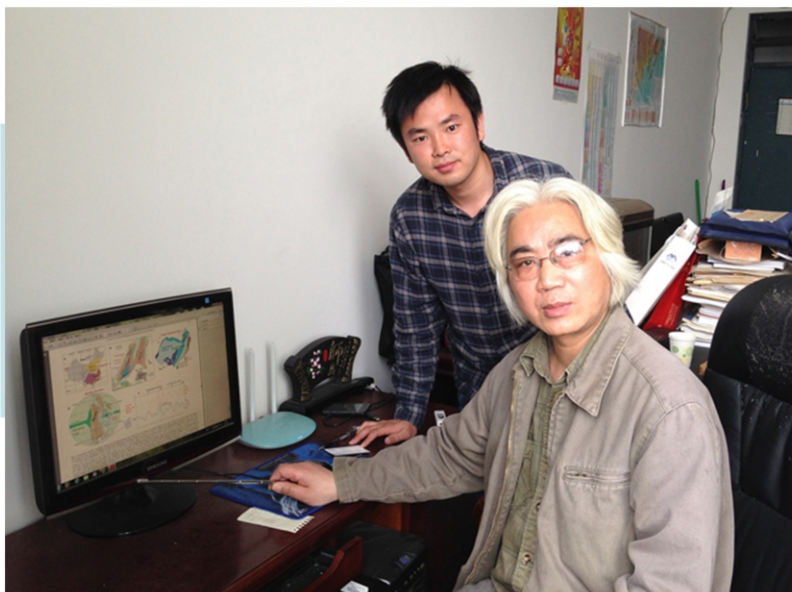
conductivity was also increased to $171.8 \mu\text{S cm}^{-1}$. As a result of these enhanced properties, the photocatalytic efficiency of CDs in the photooxidation reaction of 1,4-dihydro-2,6-dimethylpyridine-3,5-dicarboxylate is improved 3.5-fold after CD doping, which ultimately benefits the entire electron-transfer process and further improves the photocatalytic ability.

In the recent five years, the studies by Wu Mingbo's group have offered new technological approaches and ideas for the value-added utilization of heavy oil, which has formed characteristics in the area of based carbon. Their articles have been published by influential international journals, such as Angew. Chem. Int. Edit., ACS Catalysis, Chemsuschem, Carbon, Chemical Engineering Journal.

See more information about the paper:
<http://onlinelibrary.wiley.com/doi/10.1002/anie.201501912/abstract;jsessionid=AB00011A83A5242450ABA559C482C808.f03t04>

Great Progress in Chert and Paleoclimate Research Made by Zhou Yaoqi Research Group

Recently, Zhou Yaoqi research group, from School of Geosciences, UPC, has made significant progress in chert and paleoclimate research. The paper “Astronomical forcing of a Middle Permian chert sequence in Chaohu, SouthChina” has got published by Earth and Planetary Science letters. The authors of the paper are Yao Xu, doctoral student of School of Geosciences, UPC, Professor Zhou Yaoqi from UPC, and Professor Linda A. Hinnov, from Johns Hopkins University. UPC is the first contributor of the paper.



Chert is a silica-rich sedimentary rock that contains small fossils. The cryptocrystalline nature of chert, combined with its above average ability to resist weathering, recrystallization and metamorphism has made it important for the research on paleogeography, paleoclimate and organic evolution. Astronomical forcing signifies a periodical change of global climate for thousands of years caused by earth's permanent revolution, forcing a periodical change of the surface sedimentary system.

The causes of cherts have long been a subject of controversy. Zhou Yaoqi team have taken great effort on field geological exploration work. Their research, finding astronomical driving signals in chert of south China 270 million years ago and discussing in-depth the causes of chert and paleoclimate evolution model, has improved Chinese international influence in the chert research field. Peer reviewers have also showed great interest and thought highly of this research.

Students from UPC Came Second in the SPE 2015

PetroBowl Asia Pacific Regional Qualifier

May 5 – 7, 2015, SPE 2015 PetroBowl Asia Pacific Regional Qualifier was held in Kuala Lumpur, Malaysia. Students of UPC teamed up and got the second place. They will be sponsored by SPE (Society of Petroleum Engineers) and take part in the Global Finals in September 2015 in Houston.



SPE PetroBowl is an international petroleum engineering knowledge quiz. It is sponsored by the SPE Young Engineers Association of Gulf, and hosted by SPE Global Student Chapter. SPE PetroBowl is known as the Olympiad of the oil industry, it has been successfully held over thirteen years, covering questions of petroleum engineering, petroleum geology and the petroleum

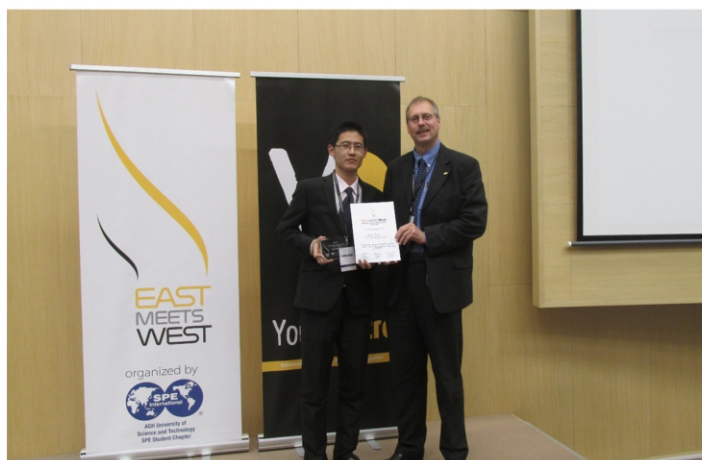
The competition this year attracted 17 teams including: China, Thailand, Malaysia, India and Indonesia. Five students from School of Petroleum Engineering, UPC, participated in this

Zhang Wei, Osama Ajaz and Ma Bo. They won the praise of experts and scholars of Petroleum Engineers from United States, Britain, Australia and other countries. During the competition, they communicated with the students from University College Sedaya International (UCSI) and Indian Institute of Technology.

UPC SPE Student Chapter was founded in April 2013. It has already organized 24 students to participate in various international exchange activities, maintaining regular communication with SPE Student chapters from United States, Russia, Malaysia, Poland and other countries.

Gong Zhiwu Won Champion of the Student Paper Contest at the Sixth Annual Edition of International Student Petroleum Congress and Career Expo

From April 22nd to 24th, the sixth annual edition of International Student Petroleum Congress and Career Expo was held in Krakow, Poland. Gong Zhiwu, postgraduate of grade 2014 of School of Petroleum Engineering, UPC, was invited to attend the expo and won the first place of the Student Paper Contest by his paper “Comparative Analysis of Productivity between Subsea Natural Gas Hydrate and Other Gas Reservoirs”, which was instructed by UPC Professor Ren Shaoran.



The Congress provides a flow of experience and knowledge between the generations, arouses international debate about technical and economical aspects of the industry and allows the opportunity to meet people in the exploration and production field from all over the world.

Hosted by AGH University of Science and Technology, Poland, the 2015 Congress consists of Student Paper Contest, World-Known Enterprise Forum and the Keynote Forum of “Today and Tomorrow of Oil & Gas Industry—Chances and Challenges”. It attracted about 120 students from all over the world and 150 well-known company representatives, including Jeff Spath, chairman of 2014 SPE, Matthias Meister, Supervisor of LWD of Baker Hughes and Parker Snyder, chairman of Polish Shale Gas Company.

In 2015, 41 students from 25 countries competed in the Student Paper Contest. With solid specialized knowledge, excellent quality and ability, and the innovation of his paper, Gong Zhiwu received high evaluation from the judges and finally got championship of the contest.

UPC Students Got Good Marks in MCM 2015

Recently, the result of 2015 MCM (The Mathematical Contest in Modeling) has been released on its official website. 90 teams from UPC attended the contest and have achieved good marks with twelve “Meritorious Winner “ and thirty-five “Honorable Mention” .

MCM/ICM, one of the best known international contests, is held annually and comprises MCM (Mathematical Contest in Modeling) and ICM (Interdisciplinary Contest in Modeling). In 2015, 9773 teams from 17 countries or regions compete in the contest. The contest offers six awards: Outstanding Winner(0.2%), Finalist(0.3%), Meritorious Winner(9.9%), Honorable Mention(32.6%), Successful Participant(56.8%), Unsuccessful Participant(0.2%).

2015 Mathematical Contest in Modeling Final Results:

<http://www.comap.com/undergraduate/contests/mcm/results.php>

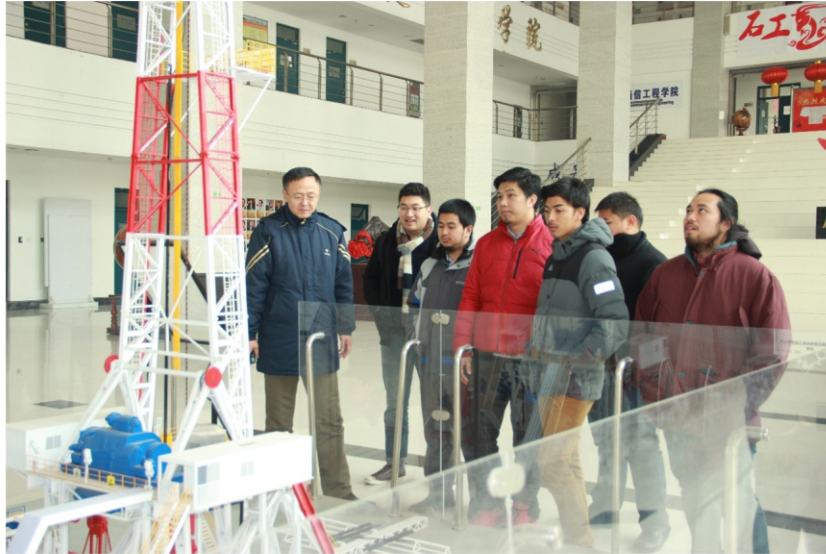
Graduation Ceremony for PBS-COSL Oilfield Services Company Sdn Bhd Trainees Held

Word comes that eight local drilling employers from PBS-COSL Oilfield Services Company Sdn Bhd have successfully completed a three-month training course on the fundamental theories and technical expertise of drilling in UPC. The graduation ceremony was held in the Qingdao campus of UPC on the 3rd April 2015.

The training course of Foundation Theory and Technology

Knowledge of Drilling Engineering consists of eighteen different subjects such as Drilling Technology, Deep Water Drilling Engineering and Well Cementing and Completion. The course, organized jointly by PBS-COSL and UPC, enabled the trainees to learn the concepts, principles, methods and calculations for the drilling process and how to apply them to solving real-work

Issues on drilling rigs. What's more, the trainees learnt to master the basic design methods and technical measures for drilling rigs and they will continue to further develop their skills as drillers. Flexible teaching methods were adopted including classroom teaching, lab visiting, scene simulation, field simulation, field research and practice and so on. Various teaching methods gave the trainees more opportunities to put what they have learned into practice.



In addition, the trainees have participated in such extracurricular activities as sports as well as learning about Chinese culture, which is taught to international students so as to assist them in their adjustment of living and studying here in China.

The drilling trainees have been awarded with a certificate of completion in a graduation ceremony.

They will then be promoted to senior positions in the drilling industry such as tool pushers and rig managers in the long term. They are part of PBS-COSL's drive to develop local capabilities in the drilling industry in Brunei Darussalam.

About PBS-COSL Oilfield Services Company Sdn Bhd:

PBS-COSL Oilfield Services Company Sdn Bhd is a joint venture with an investment from PB Services Sdn Bhd and China Oilfield Services Limited and is incorporated into Brunei Darussalam.

The International Symposium on ‘Human Civilization and The Natural Sciences’ Held in UPC



From March 21st to 22nd, the International Symposium on ‘Human Civilization and The Natural Sciences’ was held in UPC. Hosted by Geoscience Philosophy Committee of the Chinese Society for Dialectics of Nature and UPC, it attracted more than 100 specialists from the China Mainland, Taiwan, Hong Kong, Mongolia, New Zealand, France, South Korea, Japan and America. Li Zhaomin, vice-president of UPC, Ouyang Zhiyuan, professor from Renmin University of China, and Guo Fang, vice-president of the Qingdao Academy of Social Science delivered opening remarks.

Focusing on the theme- ‘Eastern Civilization and Natural Sciences’, attendees shared ideas on topics of ‘Geoscience Philosophy and Social Civilization’, ‘Philosophy of Science and Technology and Social Civilization’, ‘National Traditional Philosophy and Social Civilization’, ‘Philosophical Thinking and Social Civilization’ and ‘Eastern Mysticism and Modern Science’. At the closing ceremony, Professor Zhou Yaoqi from UPC said, ‘The symposium is just a platform for sharing ideas. More efforts are still needed for the combination of the natural and social sciences.’



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