

## 2017 中国国际烯烃及聚烯烃大会

### 2017 China International Olefin and Polyolefin Conference

2017 年 3 月 20-22 日  
20-22<sup>th</sup>March , 2017

中国宁波  
Ningbo, China

#### 主办单位 Hosts

中国化工学会(CIESC)  
汤森咨询 (Townsend Solutions)

#### 联合主办单位 Co-Hosts

宁波市科学技术协会  
(Ningbo science and Technology Association)

#### 承办单位 Organizer

宁波工程学院  
(Ningbo University of Technology)

#### 协办单位 Co-Organizers

日本化学工学会(SCEJ)  
德国德西玛化工与生物技术协会(DECHEMA e.V.)  
宁波石化经济技术开发区  
(Ningbo Petrochemical Economic and Technological Development Zone)

### 日程安排 (截至 12 月 28 日)

#### Agenda (updated to Dec.28)

**MONDAY MARCH 20, 2017**

**3 月 20 日周一**

10:00am-10:00 pm REGISTRATION 报到

Ningbo Nanyuan Hotel

宁波南苑饭店

#### HOTEL

Ningbo Nanyuan Hotel (★★★★★)

Website: <http://www.NanyuanHotel.com>

Address: Lingqiao Road ,Haishu District of Ningbo city ,Zhejiang Province, No. 2

Hotel phone: 86- 574-87095678

**Price:** Deluxe King: 450 RMB/day (including breakfast for 1 person)

Twin Room: 480 RMB/day (including breakfast for 2 persons)

**Traffic (by car):**

In Ningbo city center;

Ningbo Lishe International Airport 14.2 kilometers (about 22 minutes);

NingBo Railway Station 2.4kilometers (about 7 minutes);

**MONDAY MARCH 20, 2017**

**3 月 20 日 周一 下午**

12:30-17:00 TECHNICAL WORKSHOP TRAINING 专题技术培训

**Moderator: Dr. Clifford Lee, Vice President Technology and Market Studies, Townsend Solutions, USA**

主持人: 汤森咨询公司副总裁 黎靖宇博士

**A. 12:30-14:30 Polyethylene Technology Workshop 聚乙烯工业技术培训**

Conducted by Dr. LinFeng Chen, R&D Leader, Dow Chemical Company, USA

报告人: 陈林枫博士, 美国陶氏化学公司研发负责人

<b>Section1</b>	Industry Overview 行业概况	The 2015 global capacities of HDPE, LLDPE, LDPE, and EVA along with regional consumptions are presented. The growth rate and annual revenue for global polyethylene industry are estimated. Selected high capacity players are reviewed. 分析 HDPE、LLDPE、LDPE 和 EVA 的 2015 年全球产能及区域消费量, 并预测全球聚乙烯工业的增长率及年收益情况等。
<b>Section2</b>	The History and Evolution of Polyethylene Catalysts 聚乙烯催化剂的历史和演变	Highlights include work by K. Ziegler et al at Marx Plank Institute of Coal Chemistry, Paul Hogan and Bob Banks of Phillips Petroleum, F. Karol et al. of Union Carbide, Walter Kaminsky et al. of U. of Hamburg, Welborn et al. of ExxonMobil, Lai et al. of Dow, M. Brookhart of UNC, Max McDaniel et al. of CP Chem, and a host of others. 重点包括马克斯普朗克煤化学研究所、菲利普石油公司、陶氏化学、埃克森美孚公司等

		全球知名研究机构、顶级公司研究人员的工作。
<b>Section3</b>	Major Polyethylene Polymerization Processes 主要的聚乙烯聚合方法	Processes reviewed are Unipol I and II, MarTECH SL, MarTECH ADL, Innovene S and G, Mitsui CX, LBI's APC (Hostalen) and Spherilene S and C, Borealis' Borstar, Nova's Sclairtech and Advanced Sclairtech Technology (AST), Dow Dowlex solution process, etc. 全球知名公司聚乙烯聚合方法
<b>Section4</b>	Mapping of Catalyst with Processes, Properties, and Applications 催化剂对反应过程、产品性能及应用的影响	A diagram will be established to correlate catalyst features, polymerization processes, polymer characteristics, polymer rheology, and the markets and applications. 展示催化剂特征、聚合方法、聚合物特性、聚合物流变性，以及市场和应用的关系图。
<b>Section5</b>	Conclusions and Future Trends 结论和未来趋势	Summary of polyethylene technologies and the development directions for the future. 聚乙烯技术概要和未来发展方向

**B. 15:00-17:00 Polypropylene Technology Workshop 聚丙烯工业技术培训**

Conducted by Dr. CP Cheng, Global Product Manager, PP Catalysts Clariant Corporation, USA

报告人：郑仲平博士，科莱恩公司业务总监

<b>Section1</b>	Industry Overview 行业概况	The 2015 global capacities of HPP, RCP, ICP, and TPO along with regional consumptions are presented. The growth rate and annual revenue for global Polypropylene industry are estimated. The top 10 highest capacity players are reviewed. 介绍了 HPP、RCP、ICP 和 TPO 的 2015 年全球产能及区域消费量，并预测全球聚丙烯工业的增长率和年收益等。
<b>Section2</b>	The History and Evolution of Polypropylene Catalysts 聚丙烯催化剂的历史和演变	Highlights include work by Paul Hogan and Bob Banks of Phillips Petroleum, G. Natta of Milan, Italy, Stauffer TiCl <sub>3</sub> /AlCl <sub>3</sub>

		<p>+DEAC ball-milled (1st generation PP catalyst), Surface treated TiCl<sub>3</sub> (2nd generation PP catalyst), Ball-milled with Lewis base as internal donor and an AlR<sub>3</sub> and another Lewis base as external donor (3rd generation PP catalyst), TiCl<sub>4</sub>/MgCl<sub>2</sub>/phthalate internal donor (4th generation PP catalyst), TiCl<sub>4</sub>/MgCl<sub>2</sub> with 1,3- diether or succinate replacing phthalate as internal donors (5th generation PP catalyst), and TiCl<sub>4</sub>/MgCl<sub>2</sub> with diol diester type and a great variety of internal donors to replace phthalate (6th generation PP catalyst).</p> <p>重点介绍几代催化剂发展及应用情况</p>
<b>Section3</b>	<p>Major Polypropylene Polymerization Processes 主要的聚丙烯聚合方法</p>	<p>Processes reviewed are Spheripol, Spherizone, Unipol PP, Innovene PP, Horizone , Hypol II, Borstar PP, Sumitomo, etc.</p> <p>全球知名公司聚丙烯聚合方法</p>
<b>Section4</b>	<p>Mapping of Catalyst with Processes, Properties, and Applications 催化剂对反应过程、产品性能及应用的影响</p>	<p>A diagram will be established to correlate catalyst features, polymerization processes, polymer characteristics, polymer rheology, and the markets and applications.</p> <p>展示催化剂特征、聚合方法、聚合物特性、聚合物流变性，以及市场和应用的关系图。</p>
<b>Section5</b>	<p>Conclusions and Future Trends 结论和未来趋势</p>	<p>Summary of polypropylene technologies and the development directions for the future.</p> <p>聚丙烯技术概要和未来发展方向</p>

**DINNER 晚餐**

**DAY 1 –TUESDAY, MARCH 21, 2017**

**3 月 21 日周二**

**PLENARY + OLEFIN CONFERENCE 全体大会+烯烃大会**

**TOPIC1: Upgrade and Optimizion Road Map of Olefin and Polyolefin Industry Chain 烯烃及聚烯烃全产业链升级优化路线图**

**Moderator: Prof. Yang Yuanyi, Executive Vice President and Secretary General of CIESC**

主持人：中国化工学会副理事长兼秘书长 杨元一

Welcome address 欢迎致辞

Single Active Center Catalyst and Preparation of Polyolefin

By Tang Yong, Academician, Shanghai Institute of Organic Chemistry, CAS

单活性中心催化剂与聚烯烃制备——中科院上海有机化学研究所研究员，中国科学院院士 唐勇

Development Process and Technology Breakthrough of China Ethylene Industry

By Wang Zizong, Vice Chief Engineer of Sinopec Group

中国乙烯工业发展历程及技术突破——中国石化集团公司副总工程师 王子宗

**Tea Break 茶歇**

ExxonMobil Asia Pacific R&D Research Capabilities in China

By Dr. Robert J. Wittenbrink, ExxonMobil Asia Pacific R&D Manager

埃克森美孚亚太研发实力与战略——美国埃克森美孚化工公司亚太区研发总经理 罗蔚滨

Maximizing Value through Innovation: LyondellBasell's Technology and Catalysts

By Dr. Jochem Pater, Director Catalyst Business LyondellBasell

通过创新实现价值最大化：利安德巴塞尔的工艺和催化剂——Dr. Jochem Pater, 利安德巴塞尔工业公司催化剂业务总监

**PANEL DISCUSSION 嘉宾访谈**

**TOPIC:** Global Breakthroughs in Olefin and Polyolefin Technology, Product Applications and Market Anticipation 全球烯烃及聚烯烃技术突破、产品应用与市场预判

**LUNCH 午餐**

**TOPIC2: Olefin and Polyolefin Process Optimization 烯烃及聚烯烃工艺优化**

**Moderator: Dr. Clifford Lee, Vice President Technology and Market Studies, Townsend Solutions, USA**

主持人：汤森咨询公司副总裁 黎靖宇博士

Disrupting the Value Chain with Direct Natural Gas to Olefins Technology

By Dr. Rahul Iyer, Siluria Technologies USA

天然气直接制烯烃产业链技术突破——Dr. Rahul Iyer, 美国 Siluria 科技公司

Enhance the Level of Ethylene Plant Operation

关于全面提升乙烯装置运行水平经验分享——中国石化集团茂名石化分公司

Honeywell UOP Global Olefin Production Project Practice

霍尼韦尔 UOP 全球烯烃生产项目实践——霍尼韦尔 UOP

Latest Olefin Technology Process and Application of CB&I Lummus

CB&I Lummus 最新烯烃技术工艺及应用——CB&I Lummus

### Tea Break 茶歇

Optimization of the Olefin Production Technology

烯烃生产技术优化选择——KBR

Outlook and Challenges of Bioplastics Industry

By Dr. In-Joo Chin., President Korean Bioplastics Association, Professor of Inha University

生物塑料行业的展望和挑战——Dr. In-Joo Chin., 韩国生物塑料协会理事长, 韩国仁荷大学教授

Research Progress of Bio Based Engineering Plastics

By Zhu Jin, President, Material Technology Research Institute, Ningbo Institute of Industrial Technology, CAS

生物基工程塑料的研究进展——中科院宁波材料技术与工程研究所材料技术研究所所长 朱锦

R&D of Polymerization Process Technology for High Performance Polyolefins

By LI Bo-Geng, Professor, Zhejiang University

高性能聚烯烃聚合工艺技术的研发——浙江大学教授 李伯耿

### DINNER 晚餐

**DAY 2 – WEDNESDAY, MARCH 22, 2017**

**3 月 22 日周三**

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POLYOLEFIN CONFERENCE 聚烯烃大会

**TOPIC3: Polyolefin Processing Technology and Product Innovation 聚烯烃加工技术与产品创新**

**Moderator: Qiao Jinliang, Vice President, Sinopec Beijing Research Institute of Chemical Industry**

主持人：中国石化北京化工研究院副院长、中国石化高分子材料首席专家 乔金樑

**Frontiers of Polyolefin Catalysts**

By Dr. Clifford Lee, VP Technology and Market Studies, Townsend Solutions, USA

聚烯烃技术前沿——美国汤森咨询公司副总裁 黎靖宇博士

**Breakthrough in Technology Development of Polyolefin in China**

By Zhang Shijun, Vice Chief Engineer, Sinopec Beijing Research Institute of Chemical Industry

中国石化聚烯烃产品应用——中石化北京化工研究院副总工程师 张师军

**New Developments of Elastomers**

By Dr. Kevin Li, TS&D Manager

热塑性弹性体的新进展——Dr. Kevin Li, 陶氏化学公司技术服务总经理

**SABIC's New Polyolefin: Innovation and Collaboration**

By Dr. Mahari Tjahjadi, Market Development/Tech Support SABIC AP

沙特基础新型聚乙烯：创新与合作——Dr. Mahari Tjahjadi, 沙特基础工业公司亚太区市场发展与技术支持经理

**Tea Break 茶歇**

**Study on Modification of High End Polyolefin**

By Yu Jian, Professor, Tsinghua University

高端聚烯烃的改性研究——清华大学教授 于建

**Controlling of Crystalline Morphology and Properties of  $\beta$ -nucleated Polypropylene**

By Fu Qiang, Professor, Sichuan University

$\beta$ -核聚烯烃结晶形态控制及性能研究——四川大学教授 傅强

**Polyolefin Modified Technology Based on High Performance Application**

By Xiao Peng, Professor, Kingfa Scientific and Technological Co., Ltd.

基于高性能化应用的聚烯烃改性技术——金发科技股份有限公司高级工程师 肖鹏

## LUNCH 午餐

### **TOPIC4: Development and Application of Polyolefin Catalyst 聚烯烃催化剂开发与应用**

**Moderator: Hua Wei, Vice Secretary General and Senior Counselor of CIESC**

主持人：中国化工学会副秘书长、高级顾问 华炜

Research and Development of Polypropylene Catalyst Technology in China  
By Yi Jianjun, Professor level senior engineer, CNPC Research Institute of Petroleum and Petrochemical Industry

聚丙烯催化剂技术开发与应用——中石油石油化工研究院聚烯烃研究室主任、教授级高工 义建军

Development and Future Trend of Polyolefin Catalytic Technology  
By Ye Xiaofeng, President, Organic Chemistry Division of Shanghai Research Institute of Chemical Industry

聚烯烃催化技术的发展及未来发展趋势——上海化工研究院有机化工研究所所长 叶晓峰

Recent Development in Bimodal Polyethylene Catalysts  
By Dr. LinFeng Chen, R&D Leader, Dow USA

双峰聚乙烯催化剂的最新研究——Dr. LinFeng Chen，美国陶氏化学公司研发负责人

## Tea Break 茶歇

Advances in Polypropylene Catalysts  
By Dr. CP Cheng, Business Director Clariant

聚丙烯催化剂的研究进展——Dr. CP Cheng，科莱恩公司业务总监

Recent Advances in Polyolefin Catalysts  
By Dr. Jiang Bian, Director of Albemarle Corporation Europe

聚烯烃催化剂的最新进展——Dr. Jiang Bian，雅保公司欧洲区域业务总监

High Performance Metallocene Catalyst Technology  
高性能茂金属催化剂技术——日本 JPP 公司

## DINNER 晚餐



**DAY 3 – THURSDAY, MARCH 23, 2017**

**3月23日周四**

**AM 上午** On-site visit of industrial park and companies  
企业走访/参观考察

**MARCH 20-22, 2017**

**FULL DAYS**

SHOWCASE 配套展览展示

**LUNCH** 午餐

**REGISTRATION FEE**

Item	Fee	
March 20 afternoon (half day): technical workshop training	USD 300/per	
		<b>Regular</b>
March 21-22 (2 days) Olefin and Polyolefin Conference	By Feb. 28	USD 1000/per
	From March 1	USD 1200/per

Note: Registration fees include: delegates payment, conference materials and caterings. Travel and accommodation expenses are not included in the registration fee.

**Remittance Account Information:**

**Please remit the fund by T/T to**

Bank of America, N.A. New York Branch, New York

SWIFT Address: BOFAUS3N

**For credit to**

Industrial and Commercial Bank of China

Beijing Municipal Branch, Beijing, PRC

SWIFT Address: ICBKCNBJBJM

**For further credit to Beneficiary**

Account Number: 0200253809014450629

Name: The Chemical Industry and Engineering Society of China

Address: Andingmen Wai, 53 Xiaoguanjie, Beijing 100029, China

Telephone: +86-10-64438491 / 64440548

**CONTACT**

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Ms. Cindy Wang, **CIESC**

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## **Review of 2016 China International Olefin Conference**

### **Conference Overview**

China (International) Olefin Conference 2016' was held in Ningbo on March 29-30, 2016. The conference was hosted by Chemical Industry and Engineering Society of China, Japan Chemical Engineering Society and German Dechema Association. More than 300 people from the United States, Germany, Japan, Saudi Arabia, China and other domestic and foreign institutions of higher learning, research institutes and large enterprises attended the meeting, who discussed deeply the upgrading strategy of the olefin industry in the world under the challenge of low oil price.

### **Conference Focus**

- Raw material and technology diversification of olefin industry chain;
- The comprehensive utilization of the downstream and byproduct of olefin
- Polyolefin and catalyst technology

### **Participating Composition**

- Participating composition structure : Enterprise 73%; Universities and research institutes 12%; Government, associations and industry organizations 15%
- Participating enterprise structure: state-owned enterprises 49%; private enterprises 40%; foreign enterprises 11%
- Service type structure: Production type enterprises 73%; Technology / product suppliers 15%; Engineering service providers 8%, Matching equipment enterprises 7%; trading company 5%; Consulting research service providers 2%
- Participant structure: R & D technical personnel 57%; Marketing personnel 14%; managerial staff 12%; Others 17% (Vice president and above level accounted for 42%)

### **Industry in Ningbo:**

Ningbo is China's national petrochemical industry base and the petrochemical industry is an important pillar industry in Ningbo. Ningbo olefin industry realized a total profit of nearly 7 billion RMB in 2015. Ningbo will become an important growth center in the domestic and global production of olefins.

