



Technology in Petroleum Refining & Petrochemicals

▲▲▲ Venue: KFUPM Dhahran Techno Valley, Innovation Cluster Bldg., Auditorium 1111 ▲▲▲

Day One: Monday, November 12, 2018

OPENING REMARKS SESSION

Chairman: Dr. Hassan S. Al-Asiri

8:15 Registration & Coffee Break

8:30 Opening Remarks

- H.E. Dr. Sahel Abduljawwad, Rector, KFUPM
- Mr. Ahmed Al-Khuwaiter, CTO, Saudi Aramco
- Mr. Eiji Hiraoka, Senior Executive Director, JCCP
- Dr. Koichi Eguchi, President, JPI

SESSION ONE CLEAN FUELS AND HYDROGEN

Chairman: Dr. Takeshi Shiono

9:00 1. **Keynote:** Hydrogen energy based society, Dr. Koichi Eguchi, JPI

9:30 2. Hydrogen production through thermo-neutral reforming of liquid fuels using structured catalysts, Dr. Shakeel Ahmed, KFUPM/CRP

9:50 3. Catalytic steam reforming of biomass-derivatives for hydrogen production, Dr. Yasushi Sekine, Waseda University, Japan

10:10 4. Design of scalable and stable catalysts for CO₂ reforming of methane, Dr. Oki Muraza, KFUPM/CENT

10:30 Coffee Break

SESSION TWO NEW CHALLENGES: FUELS/CHEMICALS

Chairman: Dr. Ali H. Zaid

10:50 5. **Keynote:** Future fuels & petrochemicals: new technologies in the face of new challenges
Dr. James Johnson, Honeywell UOP, USA

11:20 6. Clean energy generation by artificial photosynthesis based on semiconductor technology
Dr. Kazuhiro Ohkawa, KAUST

11:40 7. The effect of lanthanum exchange on USY-zeolites for the alkylation of 2-butene with isobutane, Dr. Mohammed Al-Dossary, Saudi Aramco R&DC

12:00 Prayer & Lunch Break

SESSION THREE IMO REGULATIONS/HEAVY OIL

Chairman: Dr. Khalid Al-Hooshani

13:00 8. Responding to 2020 IMO SO_x regulation, Mr. Atsunori Sato, JGC Corporation, Japan

13:20 9. Effect of zeolite Y modification on reaction performance of heavy crude oil hydrocracking, Dr. Lianhui Ding, Saudi Aramco R&DC

13:40 10. Oil soluble dispersed catalysts for slurry phase hydrocracking of heavy VGO, Mr. Tareq Al-Attas, KFUPM/ChE

14:00 11. Development of *Petroleomics* from fundamentals to applications, Dr. Kazuhiro Inamura, Japan Petroleum Energy Center (JPEC), Japan

14:20 Day One Ends

28th Annual Saudi-Japan Symposium: Nov. 12-13, 2018

أرامكو السعودية
Saudi Aramco



Technology in Petroleum Refining & Petrochemicals

▲▲▲ Venue: KFUPM Dhahran Techno Valley, Innovation Cluster Bldg., Auditorium 1111 ▲▲▲

Day Two: Tuesday, November 13, 2018

SESSION FOUR CATALYST TECHNOLOGY/AROMATICS *Chairman: Dr. Yasushi Sekine*

- 8:00 *Registration & Coffee Break*
- 8:30 12. Effect of alumina binder on deactivation behavior of Pt-Beta catalyst for transalkylation of toluene with 1,2,4-trimethylbenzene, *Dr. Faisal Al-Mulla, Saudi Aramco R&DC*
- 8:50 13. Driving catalysis innovation in petrochemicals through designing of unneglectable support materials, *Dr. Muhammad Haider, SABIC Riyadh*
- 9:10 14. Study the nano-structured zeolites for hydrocarbon reforming: kinetic and reaction pathways, *Mr. Ali N. Al-Jishi, Saudi Aramco R&DC*
- 9:30 15. Advance characterization of heterogeneous catalyst of core-shell Pt@SiO₂ nanoparticles, *Dr. Noor Al-Mana, Saudi Aramco R&DC*
- 9:50 *Coffee Break*

SESSION FIVE PETROCHEMICAL APPLICATIONS *Chairman: Mr. Alhussain Bakhurji*

- 10:20 16. Numerical modeling for selected chemical processes, *Dr. Tarek Jamaledine, SABIC Riyadh*
- 10:40 17. Oxidative reforming of n-butane to ethylene, propylene and syngas on acid/base nano-hybrid catalyst, *Dr. Sachio Asaoka, KFUPM/CRP and JCCP*
- 11:00 18. Light naphtha upgrading to aromatics using metal modified MFI zeolite catalysts, *Dr. Yaming Jin, Saudi Aramco R&DC*
- 11:20 19. Upgrading of unused heavy fuel oil over iron oxide based catalysts under sub and supercritical water conditions, *Dr. Takuya Yoshikawa, Hokkaido University, Japan*
- 11:40 20. Zeolite catalyst development for enhancing p-xylene selectivity, *Dr. Mohammed Al-Bahar, Saudi Aramco R&DC*
- 12:00 *Prayer & Lunch Break*

SESSION SIX COMPOSITES AND POLYMERS *Chairman: Dr. Mohammed Ba-Shammakh*

- 13:00 21. MgO-blended polyethylene glycol composites as a shape-stabilized phase change material for solar thermal energy storage, *Dr. Md. Hasan Zahir, KFUPM/CoRE-RE*
- 13:20 22. Nuclear Magnetic Resonance (NMR) Spectroscopy at Saudi Aramco's R&D Center: Where Synergy is Opportunity, *Dr. Qasim Saleem, Saudi Aramco R&DC*
- 13:40 23. Catalytic conversion of Saudi alpha-olefins to energy-saving value-added polymeric flow aids, *Dr. Muhammad Atiqullah, KFUPM/CRP*
- 14:00 24. Novel cycloolefin copolymers synthesized by ansa-dimethylsilylene fluorenyl(amido) titanium-based catalysts, *Dr. Takeshi Shiono, Hiroshima University, Japan*
- 14:20 *Closing Remarks, Symposium Ends*

Each presentation includes 5-minutes Q&A

Program as of Oct. 22, 2018

Registration: <http://catsymp.kfupm.edu.sa/register.htm>

Center for Refining & Petrochemicals: Phone 013 860-2029