



DOHA | 18 - 19 February 2008

080201FDS05 A B C D E F G H I J K L M N O P Q R S T U V W X Y Z  
 If undeliverable, please return to: 80 Marine Parade Road # 13-02 Parkway Parade Singapore 449269  
 Update your details at [www.cmtevents.com](http://www.cmtevents.com)

Name \_\_\_\_\_

Position \_\_\_\_\_

Email \_\_\_\_\_

Tel \_\_\_\_\_

Fax \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

City/Postcode \_\_\_\_\_ Country \_\_\_\_\_

**CONFERENCE VENUE**  
 CMT has arranged special discounted room rate at QR 1045+17% (Standard Single / Double) per room per night excluding breakfast (subject to room & rate availability) for delegates at **Doha Marriott Hotel**. Daily Buffet Breakfast available at QR 86 +17% per pax. Please reserve your room with the hotel directly, providing full credit card number and expiry date to:  
 Minelli De Kretser, Sales Manager, **Doha Marriott Hotel**  
 PO Box 1911, Doha, Qatar  
 Phone: 974 429 8808 Fax: 974 429 8804  
 Email: [minelli.dekretser@marriott-hotels.com](mailto:minelli.dekretser@marriott-hotels.com)  
 Reservation cut off date :15th Jan 2008

**Fees:** The full Registration Fee includes cost of all sessions, luncheon, coffee/tea & documentation.

1 Person	Group fee for 3 or more* (from the same company)
<b>Conference Fee</b>	
EUR1,795	EUR1,595 (MIN SAVINGS OF EUR600)
<b>Conference &amp; Workshop Fee</b>	
EUR2,495	EUR2,295 (MIN SAVINGS OF EUR600)

\* Terms and conditions apply.

**Cancellations, Refunds & Transfers:** A full refund will be promptly made for all written cancellations 3 weeks before the meeting. Thereafter, cancellations are not refundable. A substitute may be made at any time.

**TO REGISTER**

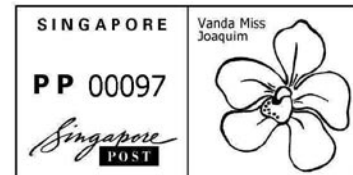
Online: [www.gtltec.com](http://www.gtltec.com)  
 Email: [cynthia@cmtsp.com.sg](mailto:cynthia@cmtsp.com.sg)  
 Fax: (65) 6345 5928  
 Tel: (65) 6346 9132

**TELEGRAPHIC TRANSFER**

Account Name: **Centre for Management Technology**  
 A/C No: **251 - 004487 - 179**  
 Bank: HSBC Singapore  
 Branch: Marine Parade, Singapore  
 Swift Code: HSBC SGSG  
*TT must include additional EUR18 for Beneficiary's Bank charges. Delegates must bear all bank charges and local taxes (if applicable). Fees must be NETT of ALL charges.*

**CUSTOMISED SPONSORSHIP PACKAGES AVAILABLE**  
 This event is an excellent platform to promote your organisation to influential players and investors in the industry. Sponsorship opportunities available include Corporate, Exclusive Luncheon, Cocktail & Documentation sponsor. Exhibition / catalogue display can be arranged upon request. Contact [cynthia@cmtsp.com.sg](mailto:cynthia@cmtsp.com.sg) or (65) 6346 9132.

Photocopy Registration Form to Preserve Brochure Copy. Feb 2008



promotion partners



[www.gtltec.com](http://www.gtltec.com)  
[www.cmtevents.com](http://www.cmtevents.com)

7th Annual Gas-to-Liquids Technology & Commercialization Conference & Exhibition

**GTLtec** DOHA 2008

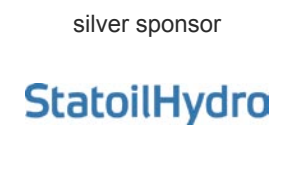
>> 18 - 19 FEB 08'  
 Doha Marriott Hotel



Pre-Conference  
**FISCHER-TROPSCH Workshop**  
 17 FEB 08'

- Pearl GTL
- Oryx GTL
- SasolChevron
- PetroSA
- StatoilHydro
- GTL.F1.
- SMBC Europe Limited
- Royal Bank of Scotland
- Velocys
- Ventech
- Dept of Petroleum & Energy, PNG
- Petropars Oil & Gas Institute
- Petrotrin, Trinidad & Tobago
- BP

- Sasol Technology
- WSP Energy UK/South Africa
- Veolia Water Solutions & Technologies
- Shell Global Solutions
- Dept of Ind & Resources, WA
- Argonne Laboratory
- Rohde & Liesenfeld Qatar
- Eni S.P.A
- Umicore AG & Co KG
- Avantium
- Albemarle
- Air Products



Held under the Patronage of  
**H.E. Abdullah Bin Hamad Al-Attiyah**  
 Second Deputy Prime Minister  
 Minister of Energy & Industry  
 Qatar Petroleum Chairman

PLATINUM SPONSOR



The Petroleum Oil and Gas Corporation of South Africa (Proprietary) Limited

The Petroleum Oil and Gas Corporation of South Africa (Proprietary) Limited, known as PetroSA, is South Africa's national oil company. It owns, operates and manages the South African government's commercial assets in the petroleum industry, excluding pipelines. The merged company has been in existence since January 2002, and is registered as a commercial, non-listed entity under South African law.

The PetroSA group comprises a number of subsidiaries, joint ventures and associated entities operating globally. Its activities extend along the value chain of the petroleum, oil, gas and petrochemical sectors. It is involved in oil and gas exploration and production, and the production and marketing of synthetic fuels and petrochemicals.

PetroSA is a pioneer in the field of gas-to-liquids (GTL) technology, recognised around the world for producing the cleanest fuels through an environmentally-friendly process, with minimal emissions. PetroSA built and operated the world's largest commercial GTL plant at Mossel Bay, Western Cape, for fourteen years. The plant produces synthetic fuels and high value products converted from natural methane-rich

gas and condensate using a unique GTL Fischer Tropsch technology.

The company is also a world leader in new GTL technology development. Together with joint-venture partners StatoilHydro, (the Norwegian national oil company) and engineering company Lurgi (Germany), it is demonstrating new cobalt based Low Temperature Fischer Tropsch technology at a semi-commercial plant in Mossel Bay.

PetroSA has marketing operations in the United States, Europe, the Middle and Far East that supply petrochemicals to customers in more than 40 countries. Customers include major oil companies, chemical distributors and drilling fluid manufacturers.

PetroSA manages the strategic crude inventory and tankage in Saldanha and Milnerton on behalf of the State, in terms of a service level agreement with the Strategic Fuel Fund. PetroSA plans to diversify into other associated petroleum industry activities such as gas development and associated infrastructure and services, GTL technology commercialisation, and downstream marketing. The organisation's headquarters are in Cape Town.



Sasol Limited is an innovative and competitive global energy company. Headquartered in Johannesburg, South Africa it is engaged in the commercial production and marketing of chemicals and liquid fuels; with a growing interest in oil and gas exploration.

Promoting GTL technology

Through Sasol Synfuels International and Sasol Chevron, the group is promoting the development of GTL plants in select gas-rich regions of the world using its proprietary Sasol Slurry Phase Distillate™ (Sasol SPD™) process. The first such international GTL plant is the ORYX GTL venture at Ras Laffan, Qatar, in partnership with Qatar Petroleum.

Bringing more than 50 years' experience

Sasol brings to Qatar and the world more than 50 years of operational experience and innovation in synthetic fuel production. The group is renowned for both its low-temperature and high-temperature processes in South Africa, both of which can convert either natural gas or coal into value-added liquid fuels and chemical feedstocks.

Sasol is committed to sustainable development and is a signatory of Responsible Care®, a worldwide initiative by the chemical industry that strives to improve performance in safety, health and environment.



JOIN US IN DOHA FOR THE BIGGEST GTL EVENT OF THE YEAR !

An impressive line up of authoritative speakers to give you the real global picture of GTL developments, technologies & the future of the industry

Why you NEED to attend GTLtec DOHA 2008.

## Key highlights of the conference

Bringing together the major players in Qatar to discuss on the recent developments and progress on their projects

In the latest developments Sasol claims to have substantially overcome the technical problems afflicting its high-profile Oryx GTL joint venture and announced that the plant will hit full capacity by 2008. Has the problems which was estimated to cost 50 mn to fix, deter Sasol's aspiration to apply the GTL technology elsewhere? As the world watches on Oryx performance will this high-profile project become the shop window for the gas-to-liquids industry?

Meanwhile, construction of the 140,000 barrels-per-day Pearl GTL project is on schedule and expected to start up by the end of the decade, according to Shell. This incredible project will employ 35,000 workers during the construction phase. At what stage is this GTL project now? How will Shell expect to see a return on investment?

Commitment of other global players and recent breakthroughs in GTL Technology - GTLF1, PetroSa, StatoilHydro, ENI.

What & where are the other major GTL projects that are coming up? What is the plan of the major oil & gas companies to invest in GTL over the next 20 years? Which countries are highest probabilities for allowing GTL projects to be completed on their soil? Perspective from Iran, Trinidad & Tobago, Australia, Papua New Guinea

Future of financing for GTL projects

Project costs are affecting the whole industry, not just GTL but also refining, LNG, petrochemicals. With the credit squeeze, what is the views from international bankers regarding how they feel about GTL lending?

“ GTLtec is The key event for all serious GTL players ”

Dr. Rolf Ødegård, Manager Business Development GTL, StatoilHydro

GTL trends - interest in Small to Mid Sized GTL applications.

With the surge in domestic gas projects from LNG, pipeline to building a fleet of gas-fired power stations this has led to rising concerns on the gas supply issues for the GTL projects in Qatar. Where else will we see development of major field's like the Qatar North Field, or is it really time for smaller remote locations that many have been posturing to develop?

Driving GTL Costs down

An interesting concept in these cost conscious times is to buy equipment at scrap value and relocate/re-engineer as Ventech is doing for World GTL. Would this be an ideal solution? Will it set the precedent for developing other small & remote GTL production sites?

Carbon Efficient GTL processes

The energy and carbon efficiencies of GTL remains a technical challenge. Sasol Technologies will share with us next generation technologies that will see improvements in carbon efficient GTL processes. Argonne Laboratory will give a comparative analysis of the greenhouse gas emissions from the production and use of GTL, CTL & BTL.

Challenges in management of waste process water and recycling of industrial effluents from the Pearl GTL project

Register NOW online @ [www.gtltec.com](http://www.gtltec.com). Abundant Networking Opportunities! Meet the key decision makers in the industry.

Letter from the Workshop Leader

The interest in the conversion of syngas (from different carbon sources) to liquid fuels is still in the increase.

New plants under construction like Shell's Pearl GTL projects (fixed bed reactor, targeting a total of 140 000 bpd) and Sasol Chevron Escravos GTL project (slurry bed reactor, targeting a total of 34 000 ppd) are using their more advanced catalyst and reactor technologies.

On the other hand, now more than ever new syngas companies are emerging, targeting medium and small size plants. An example of one of such projects, and currently under construction is the 2 250 barrels per day World GTL Trinidad Ltd project in Trinidad, based on fixed bed reactor technology.

This year workshop will try to address topical issues for both large and small size plants, such as the technology available for small companies and whether there is a difference in the technological approach as a function of the plant size, potential problems during the start-up period and differences in the development of catalysts for both fixed and slurry bed reactors. Because of the fact that more capacity is currently being developed for fixed rather than for slurry bed reactors, this year workshop will have more fixed bed reactors content than last year's one.

In this way, we expect to provide some clarity about the different options available for this technology and to contribute towards its successful development and implementation.

I look forward to meeting you at this workshop.

Thank You

Rafael Espinoza

Pre-Conference - 17 Feb 08'  
FISCHER-TROPSCH Workshop

### PROGRAM

**BRIEF INTRODUCTION TO FISCHER-TROPSCH**  
This section is oriented to the delegates that are not directly involved in the technical aspects of the conversion of syngas to liquid fuels.

*It will be a 90 minutes session dealing with aspects such as typical Fischer-Tropsch catalysts, selectivity of the primary Fischer-Tropsch products, reactors (including cooling and catalyst/wax separation, when applicable), hydrotreating, hydrocracking (including selectivities) and final product properties.*

**FUTURE GTL (or CTL, BTL) PLANTS CAPACITY**  
Medium and small size capacity plants as compared to the current large plants approach. Is there room for smaller plants?  
• Is there Fischer-Tropsch technology available for emerging GTL/CTL/BTL small companies?  
• Technological approach for small projects as compared to large ones. Possible differences between them.

**DESIGN RELIABILITY OF THE FISCHER-TROPSCH SECTION & CAPITAL INVESTMENT**  
Identification of the main technological challenges to meet the plant design productivity in a short time.

- Potential problems during the reactors start-up and shut-down : Slurry and fixed bed reactors
- Unplanned shutdowns : Slurry and fixed bed reactors
- Primary and secondary catalyst/wax separation for Slurry Bed Reactors
- Other potential technological problems

*The purpose of this discussion is to identify whether these potential problems can be avoided or minimized by means of e.g. more robust or redundant designs and the effect on the overall investment and project economics.*

**FIXED VERSUS SLURRY BED REACTORS**  
An updated comparison for the two reactors.  
• Effect of the plant capacity on the selection of the Fischer-Tropsch reactor  
• Technological risks for both approaches

**DEVELOPMENT OF CATALYSTS FOR FIXED AND SLURRY BED REACTORS.**

How the approach is different for these two catalysts and the constraints and degrees of freedom for both.  
• Effect of the catalyst particle size (mm for fixed bed vs µm for slurry bed)  
• Influence of the reactor heat transfer characteristics on the catalyst design  
• Desired catalyst properties for both reactors

*The participants will have the opportunity to suggest topics for discussion within the main categories. A form will be distributed for this purpose during registration.*

Dr Rafael L Espinoza



Dr Espinoza has been involved in the field of GTL for most of his professional life. He was director of Fischer-Tropsch (FT)

R&D at ConocoPhillips (2000-2005) and responsible for the technical development of the FT and Hydroprocessing technologies, including catalyst development and preparation scale-up, modeling, process development, reactor technology and products.

At Sasol (1986-2000), he had the positions of Sasol Research Fellow, Manager of Basic Catalysis Research and Sections Leader for high and low temperature FT at the Process Development Dept. Some of the projects in which he was involved include the development of catalysts for Slurry, Fixed and Fluidized bed reactors, development of a Slurry bed reactor for FT (coordinator 1986-1989), commercial plants support, optimization of conceptual designs for new FT plants, optimization of the configuration of the Sasol plant in Sasolburg, etc.

Dr Espinoza was also Sr. Chief Research Officer at CSIR in South Africa where he worked on catalyst development in the fields of acid catalysis, supported transition metals and FT.

He has numerous refereed papers and over 45 granted US patents in the field of synthetic fuels. In 2005 he started a consulting company (RafaelEspinoza.com).

Dr Espinoza will be assisted by Phillip Gibson

Phillip Gibson



Mr Gibson is the Manager of Fischer-Tropsch Catalysis Research at the Sasol Technology Research & Development Division in South Africa. He is an MSc graduate

in Physical Chemistry from the University of Johannesburg, in 1989 and joined Sasol's Corporate R&D facility in 1992. He was a Visiting Scientist at the Institute for Technical & Petroleum Chemistry, Aachen, Germany 1994/95

His Career Focus Areas are :

- Development of Fe-based slurry phase catalyst for CTL application in Sasolburg
- Development of Co-based slurry phase catalyst for global GTL application
- Development of novel Fe-based catalyst for syngas to chemicals application in High Temperature Fischer-Tropsch (CTL)

## Day 1

Monday, 18<sup>th</sup> February 2008

8:00 Registration

9:00 Minister's Opening Address  
**H.E Abdullah bin Hamad Al-Attiyah**, Deputy Premier, Minister of Energy & Industry, Chairman of **Qatar Petroleum**

9:20 Coffee Break

10:00 AN UPDATE ON THE PERFORMANCE OF ORYX  
Senior Representative  
**Oryx GTL**

10:30 SASOLCHEVRON – BUILDING FROM THE START  
Pat Butcher, Country Manager  
**SasolChevron**

11:00 TRANSFERING BINTULU'S OPERATIONAL COMMERCIAL SUCCESS TO QATAR  
Lars Carlsson, GM for Assets  
**Pearl GTL**

11:30 **The Qatar Panel Discussion**  
*Led by*  
Malcolm Wells, Communications Manager  
**Sasol Chevron**

11:45 LOGISTICS SUPPORT FOR QATAR'S GTL INDUSTRY  
Phillip Luehrs, CEO  
**Rohde & Liesenfeld Qatar**

12:10 GROWTH THROUGH PARTNERSHIP  
Jörn Falbe, Vice President  
New Ventures Midstream  
**PetroSA**

12:40 GTL A KEY ELEMENT IN STATOILHYDRO'S GAS CHAIN DEVELOPMENTS  
Dr. Rolf Ødegård, Manager Business Development GTL  
**StatoilHydro International Business Development**

1:15 Discussion followed by Lunch

*Chairman:* Alex Forbes  
**Forbes Communications**

2:00 SUCCESSFUL LARGE SCALE FISCHER-TROPSCH TECHNOLOGY DEMONSTRATION  
Matthias Wagner, Managing Director  
**GTL.F1.**

2:30 **Round Table Discussion of Bankers FUTURE OF FINANCING FOR GTL PROJECTS – Round table discussion**  
• Tom Hardy, Head of Project Finance, Oil, Gas & Petrochemical, **Royal Bank of Scotland**  
• Robert Clews, Head of Oil, Gas and Petrochemicals, Energy & Natural Resources Project Finance  
**SMBC Europe Limited**

3:00 OFFSHORE APPLICATIONS FOR SMALL TO MID-SIZED GTL PROJECTS  
Jeff McDaniel, Vice President  
**Velocys**

3:30 GTL VIA RELOCATED FACILITIES & MODULARIZATION  
Kevin Stanley, President  
**Ventech**

4:00 GTL – A POTENTIAL FUTURE DIRECTION IN WESTERN AUSTRALIA  
Senior Representative  
**Dept of Industry & Resources**

4:30 Discussion followed by Tea

5:00 GAS DEVELOPMENT PLANS FOR PAPUA NEW GUINEA  
Peter Kogl, Assistant Director - Petroleum Engineering  
**Department of Petroleum and Energy, Papua New Guinea**

5:30 IRAN GAS MONETISATION PLANS AND GTL OPPORTUNITIES  
Dr. Kambiz Sadaghiani, President  
**Petropars Oil & Gas Institute**

6:00 TRINIDAD & TOBAGO GTL PROJECT DEVELOPMENTS  
Imtiaz Ali, General Manager  
Strategy & Business Development  
**Petrotrin**

6:30 **Panel Discussion**  
What's next for GTL? Where is the gas? Will we see development of major fields, like Qatar's North field, elsewhere, or is it really time for the smaller remote locations that many have been posturing to develop?

6:45 Final Discussion. Close of Day 1

1900 - 2000 hrs.

*Networking Reception*

sponsored by



## Day 2

Tuesday, 19<sup>th</sup> February 2008

9:00 Chairman's Remarks

9:10 GAS TO LIQUIDS AND THE EMERGING CONVERSION BUSINESS  
David Robertson, Technology VP  
Conversion Technology Centre  
**BP**

9:40 CARBON EFFICIENT GTL CONVERSION PROCESS – THE NEXT GENERATION GTL TECHNOLOGY  
Andre Steynberg, GTL Technology Manager  
**Sasol Technology**

10:10 Discussion followed by Coffee

10:40 USING CARBON FINANCE TO CONVERT BIOGAS TO POWER AT PETROSA'S GTL PLANTS  
Johan van der Berg, Director  
Climate Change & Carbon Finance  
**WSP Energy UK/South Africa**

11:10 MANAGEMENT OF WATER RESOURCES & RECYCLING FOR PEARL GTL  
*Joint Presentation by*  
Philippe Valerio, Sales & Technical Director  
**Veolia Water Solutions & Technologies**  
Niels Fabricius, General Manager  
XTL Technology  
**Shell Global Solutions**

11:40 GHG STUDY ON GTL, CTL & BTL – A COMPARATIVE ANALYSIS  
Dr. Michael Wang, Section Manager & Vehicle & Fuel Systems Analyst  
**Argonne Laboratory**

12:10 MECHANICALLY STABLE CATALYST FOR SCALE UP OF FT REACTION  
Robert Zennaro  
Exploration & Production Division  
**Eni S.P.A**

12:40 Discussion followed by Lunch

2:00 CATALYST RECYCLING - GIVING EXTRA VALUES AND INCREASING PLANNING RELIABILITY  
Andreas Brumby, Knowledge Management  
**Umicore AG & Co KG**

2:30 BENEFITS OF HIGH THROUGHPUT SCREENING FOR GAS-TO-LIQUID CATALYST RESEARCH  
Dr Peter Mangnus, VP  
Business Development Chemicals  
**Avantium**

3:00 GTL CATALYST MARKET & TECHNOLOGY DEVELOPMENTS  
Senior Representative  
**Albemarle**

3:30 CONTINUED DEVELOPMENTS IN LARGE SCALE OXYGEN SUPPLY FOR XTL PROJECTS  
Richard Boocock, Vice President  
Tonnage Gases - Europe & Middle East  
**Air Products**

4:00 BRINGING THE MESSAGE ACROSS TO GTL CONSUMERS  
Malcolm Wells

4:30 Final Discussion. End of Conference