



**TEXAS A&M**  
UNIVERSITY *at* QATAR



SUCCESSFUL INDUSTRY-ACADEMIA  
COLLABORATION IN THE

# ADVANCEMENT OF CO<sub>2</sub> UTILIZATION AND LOW CARBON PROCESSES

10 – 11 MAY 2022



**Gas & Fuels  
Research Center**

Texas A&M Engineering Experiment Station

# TAMUQ- TotalEnergies Workshop

## Successful Industry-Academia Collaboration in the Advancement of CO<sub>2</sub> Utilization & Low Carbon Processes

**Tuesday, 10 May 2022**

**12 – 1 p.m.**

Lunch in VIP Majlis (invited visitors)  
Texas A&M University at Qatar

**1 – 2:30 p.m.**

Tour of TAMUQ Labs

### **Workshop Technical Program**

Room: Al Mukhtassar 2, The Ritz-Carlton, Doha

**4 – 4:10 p.m.**

Welcome from Dr. Hassan S. Bazzi

**4:10 – 4:50 p.m.**

### **Plenary Speaker**

**Dr. Tobin Marks**

Vladimir N. Ipatieff Professor of Catalytic  
Chemistry and Professor of Materials Science and  
Engineering, Northwestern University

“Attacking Key Challenges in the  
Catalytic Dry Reforming of Methane”

**5 – 6 p.m.**

**Panel Discussion**

**“CO<sub>2</sub> Utilization vs. Sequestration: Potentials and Challenges”**

**Prof. Muammer Koc**

Hamad Bin Khalifa University

**Dr. Dhabia Al-Mohannadi**

Texas A&M University at Qatar

**Dr. Abdulkarem Amhamed**

Qatar Environment and Energy Research Institute

**6:15 – 7:15 p.m.**

**Poster Session and Networking**

**7:30 – 9 p.m.**

**Dinner Room: Al Mukhtassar 1**

**Wednesday, 11 May 2022**

**8:30 – 9 a.m.**

**Registration and Coffee**

Room: Al Mukhtassar Foyer

**9 – 9:30 a.m.**

**Opening and Welcome Remarks**

**Dr. César Malavé**

Dean, Texas A&M University at Qatar

**Mr. Matthieu Bouyer**

Managing Director and Country Chair,  
TotalEnergies Qatar

**9:30 – 10 a.m.**

**Keynote 1**

**“CO<sub>2</sub> Utilization in Natural Gas Processing: Technology Development from Micro to Macro Scale”**

**Dr. Nimir Elbashir**

Project Leader

Professor of Chemical Engineering and Petroleum Engineering, Texas A&M University at Qatar

TEES Gas and Fuels Research Center Director

**10 – 10:30 a.m.**

## **Keynote 2**

**“TotalEnergies Contribution in Gas Conversion and CO<sub>2</sub> Utilization through NPREP Project”**

**Dr. Olivier Miserque**

Low Carbon Processes R&D Manager,  
TotalEnergies OneTech Belgium

**10:30 – 10:45 a.m.**

**Videos/Award and Recognition Ceremony**

**10:45 – 11:45 a.m.**

**Coffee Break: Poster Session  
and Networking**

Room: Al Mukhtassar Foyer

**11:45 a.m. –  
12:20 p.m.**

## **Talk 1**

**“CO<sub>2</sub> Capture by Adsorption on Engineered  
Molecular Sieves”**

**Dr. Gilson Jean-Pierre**

Emeritus Distinguished Professor Laboratoire Catalyse  
and Spectrochimie, Normandie University, ENSICAEN,  
UNICAEN, CNRS ENSICAEN

**12:20 – 1:30 p.m.**

**Lunch**

Room: Al Mukhtassar Foyer

**1:30 – 2 p.m.**

## **Talk 2**

**“The Future of Zeolites in Net Carbon Zero-  
Transitioning Economies”**

**Dr. Valentin Valtchev**

Directeur de Recherche Laboratoire Catalyse &  
Spectrochimie, ENSICAEN – Université de Caen –  
CNRS

**2 – 2:30 p.m.**

## **Talk 3**

**“Unlocking the Decarbonization  
Potential of Gas to Chemical for  
the Industry”**

**Dr. Nikolay Nesterenko**

Head Technology Commercialization,  
Gas Solutions GTB SULZER

**2:30 – 3 p.m.**

**Talk 4**

“A Computational Insight of Guest Exchange Mechanism between CH<sub>4</sub> and CO<sub>2</sub> in SI Clathrate: CH<sub>4</sub> Recovery and CO<sub>2</sub> Storage Opportunities”

Ahmed Omran

Texas A&M University at Qatar and ENSICAEN

**3:15 – 5 p.m.**

**Roundtable Discussion**

“Industry and Academia – Potential Collaboration in CO<sub>2</sub> Utilization Research and Project”

**5 p.m.**

Workshop Closing Note

**6:30 – 9 p.m.**

Dinner (by invitation)

Sel & Miel Restaurant