

# **Petroleum Preprints Presented at the 237th ACS National Meeting 2009**

**Division of Petroleum Chemistry, American Chemical Society  
Petroleum Preprints Volume 54 #1**

**Salt Lake City, Utah, USA  
22-26 March 2009**

**ISBN: 978-1-61567-808-2**

**Printed from e-media with permission by:**

Curran Associates, Inc.  
57 Morehouse Lane  
Red Hook, NY 12571



**Some format issues inherent in the e-media version may also appear in this print version.**

Copyright© (2009) by ACS Division of Petroleum Chemistry, Inc.  
All rights reserved.

Printed by Curran Associates, Inc. (2010)

For permission requests, please contact ACS Division of Petroleum Chemistry, Inc.  
at the address below.

ACS Division of Petroleum Chemistry, Inc.  
150 West Warrenville Road  
Naperville, Illinois 60563

Phone: (630) 420-5583  
Fax: (630) 420-5367

velusubramaniacs@gmail.com

**Additional copies of this publication are available from:**

Curran Associates, Inc.  
57 Morehouse Lane  
Red Hook, NY 12571 USA  
Phone: 845-758-0400  
Fax: 845-758-2634  
Email: curran@proceedings.com  
Web: www.proceedings.com

# TABLE OF CONTENTS

## **CHEMISTRY OF PETROLEUM AND EMERGING TECHNOLOGIES**

<b>Removal of Carboxylic Acids in Fischer-Tropsch Hydrocarbon Product</b> .....	1
<i>F. H. A. Bolder</i>	
<b>The Challenges for Processing Canadian Bitumen-Derived Crudes</b> .....	4
<i>Z. Fan, P. Rahimi, T. Alem</i>	
<b>Synthesis and Characterization of Nano-Sized Hydrodesulfurization (HDS) Catalyst</b> .....	7
<i>D. Mahajan, M. Anjom, I. Dovgani</i>	
<b>Impact of Sulfur Poisoning on the Carbon Deposition over Rh and Ni Catalysts in Steam Reforming of Liquid Hydrocarbons</b> .....	11
<i>C. Xie, Y. Chen, Y. Li, X. Wang, C. Song</i>	
<b>Preparation and Selective Adsorption Desulfurization Activity of Ti-Ce-Al-Ag-O Adsorbent</b> .....	13
<i>F. Sun, X. Ma, C. Song</i>	
<b>Ultra Clean Fuels Via Modified Ultrasound Assisted Oxidative Desulfurization Process</b> .....	15
<i>S. S. Cheng, T. F. Yen</i>	
<b>Molecular Reconstruction of Vacuum Residues</b> .....	18
<i>J. J. Verstraete, H. Dulot, D. Hudebine</i>	
<b>Gas Chromatography for Molecular Mass Determination of Petroleum Distillates</b> .....	21
<i>L. Carbognani, T. Oldenburg, L. D. Gomez, S. Larter, P. Pereira-Alamo</i>	
<b>Allocation of Non-Conventional Feedstocks in Petroleum Refineries: An Overview</b> .....	25
<i>P. Robinson</i>	

## **POSTER SESSION**

<b>Total Acid Number Distribution in a Brazilian Refinery Oil Sample after Exposed to Different Levels of Heating in the Process Units</b> .....	26
<i>A. de O Gomes, R. C. L. Guimarães, I. P. Batista</i>	
<b>How Comb-Type Poly(Maleic Acid Alkylamide -CO-<math>\alpha</math>-Olefin) Assembles in Waxy Oils and Improves Cold Flowing Ability</b> .....	30
<i>X. Zhang, J. Xu, J. Sun, L. Li, X. Guo</i>	
<b>Solid Base and Their Performance in Synthesis of Dipropylene Glycol</b> .....	33
<i>L. Lu, Y. Xiang, D. Xia, Y. Zhou</i>	

## **REFINING AND PETROCHEMICALS USING RENEWABLE FEEDSTOCKS**

<b>Production of Monofunctional Hydrocarbons from Biomass Derived Carbohydrates via Catalytic Conversion on Carbon Supported Platinum-Rhenium</b> .....	35
<i>D. A. Simonetti, E. L. Kunkes, R. M. West, J. C. Serrano-Ruiz, C. A. Gartner, J. A. Dumesic</i>	
<b>Synthesis of Dipropylene Glycol: Optimization of Operating Condition Through a Statistical Technique</b> .....	39
<i>L. Lu, Y. Xiang, D. Xia, Y. Zhou</i>	
<b>Author Index</b>	