



## FPD Guide to 2007 Annual Meeting

### The Forest Products Division (FPD) Guide to the 2007 AICHE Annual Meeting

There are around 700 sessions at this year's annual meeting. This guide highlights sessions and papers of interest to chemical engineers and others working in the Forest Products Industry.

#### FPD SPONSORED SESSIONS

Topics		Bioproducts and Biomaterials	Forest Products Biorefineries	Forest Bioproducts Engineering Energy Recovery	Smart Forest Products	Renewable Fiber Processes
<b>Tuesday</b>	8:30-11:00	#154: Room 355 B (Salt Palace Convention Center)				
	12:30-3:00	#217: Room 355 B (Salt Palace Convention Center)				
	3:30-6:00	#280: Room 355 B (Salt Palace Convention Center)				
<b>Wednesday</b>	12:30-3:00		#415: Room 355 C (Salt Palace Convention Center)			
	6-7:30	<b>FPD Annual Meeting, Hilton California Room (Ballroom level)</b>				
<b>Thursday</b>	8-11:00 AM			#533: Room 355 C (Salt Palace Convention Center)		
	12:30-3:00 PM				#607: Room 355 C (Salt Palace Convention Center)	
	3:15-5:45 PM					#647: Room 355 C (Salt Palace Convention Center)

Please the inside for the programs of sustainable biorefinery, other sessions of interest and AICHE events.



## FPD Guide to 2007 Annual Meeting

### Bioproducts and Biomaterials

Tuesday, 6 November 2007– Room 355 B (Salt Palace Convention Center)

#### 8:30 AM-11:00 AM– Session #154

- 8:30 AM Introduction Remarks
- 8:35 AM High Performance Polymers Made with Renewable Resources,  
**Joseph V. Kurian (154a)**
- 9:00 AM Environmentally Friendly Polymeric Materials For Military Applications  
**John J. La Scala (154b)**
- 9:25 AM Kenaf Fiber Reinforced Biopolyester Composites  
**S. Sahoo**, A. Nakai, Manju Misra, A.K. Mohanty, Z. A. M. Ishak, H. Hamada (154c)
- 9:50 AM Starch-Oil Interaction In Dry Film Lubricants With Chemically Modified starch1,  
**Girma Biresaw**, R. Shogren (154d)
- 10:15 AM Injection Molded Solid And Microcellular Polylactide-Carbon Nanotube Nanocomposites,  
**Shaoqin (Sarah) Gong**, Srikanth Pilla, Adam Kramschuster, Alexander Chandra, Lih-Sheng Turng (154e)
- 10:40 AM Panel Discussion

#### 12:30 PM-3:00 PM – Session #217

- 12:30 PM Introduction Remarks
- 12:35 PM Polyurethane Foams Using Functionalized Soybean Oil for Automotive Applications,  
**Cynthia M. Flanigan**, Christine Perry, Deborah M. Mielewski (217a)
- 1:00 PM Biodegradable Nanocomposites  
**Yulin Deng**, Jihoon Lee, (217b)
- 1:25 PM All-Cellulose Hierarchical Composites  
Anthony Abbott, Julasak Juntaro, **Alexander Bismarck (217c)**
- 1:50 PM Coproduction of Wheat Straw-Derived Cellulose Fibers and Nanowhiskers with Ethanol in a Biorefinery  
**Christopher Saffron**, Farzaneh Teymouri, Janette Moore, Darold McCalla, F. Larry Leistritz, Bernie Steele, (217d)
- 2:15 PM Biobased Materials from Polyhydroxyalkanoate and Thermoplastic Starch Blends and Their Biocomposites: Opportunities and Challenges  
**Amar K. Mohanty**, Yashodhan S. Parulekar, (217e)
- 2:40 PM Panel Discussion

#### 3:30 PM-5:45 PM – Session #280

- 3:30 PM Introduction Remarks



## FPD Guide to 2007 Annual Meeting

- 3:55 PM Improved Isolation and Melt Processed Products of Zein  
**Gordon Selling**, Kristen K. Woods (280a)
- 3:45 PM Properties Of Reactively-Mixed Molded Dairy-Based Biocomposites  
**C.I. Onwulata**, P.M. Tomasula (280b)
- 4:20 PM Studies on Mechanical Properties and Enzymatic Degradation of Partially Biodegradable Laminated Ldpe - Starch Blend Film  
**Asim K. Jana**, Sangeeta Garg, Sarabjit Singh (280c)
- 4:45 PM Biodegradable Green Hybrid Composites From Bacterial Bioplastic  
**Sanjeev Singh**, A.K. Mohanty (280d)
- 5:05 PM Biocomposite Sheet Molding Compound Processing for Production of Auto Parts to Housing Structures  
**Manju Misra**, Lawrence T. Drzal (280e)
- 5:25 PM Physico-Mechanical and Morphological Study on Hemp-Polybutylene Succinate Biocomposites  
B. N. Dash, M. Nakamura, **S. Sahoo**, M. Kotaki, A. Nakai, H. Hamada (280 f)
- 5:45 PM Panel Discussion

### Forest Product Biorefineries

#### Wednesday, 7 November 2007– Room 355 C (Salt Palace Convention Center)

##### 12:30 AM-2:35 AM– Session #415

- 12:30 PM Hemicellulose Extraction of Mixed Southern Hardwood with Water: Effect of Temperature  
**Mehmet Sefik Tunc**, Adriaan Van Heiningen (415b)
- 12:55 PM Property of Solid Residue in Woody Biomass Saccharization Process by Hot-Compressed Water Method  
**Ayumu Hirakawa**, Nobusuke Kobayashi, Yoshinori Itaya, Shigenobu Hatano, Jun Kobayashi, Shigekatsu Mori (415a)
- 1:20 PM Membrane Separation: An Essential Component For A Wood-Based Biorefinery  
Christopher D Wood, Thomas E. Amidon, **Shijie Liu** (415c)
- 1:45 PM Improvement of Bio-Oil Stability  
**Rebecca K. Toghiani**, Ananda Sekar, Phil Steele (415d)
- 2:10 PM Technical Economic Evaluation of Hardwood Biorefinery Using Hemicellulose Pre-Extraction Process  
**Haibo Mao**, **Joseph Genco**, Adriaan Van Heiningen (415e)
- 2:35 PM Process Modeling of Integrated Forest Biorefinery – An Integrated Approach  
Hua-Jiang Huang, Weilu Lin, **Shri Ramaswamy** (415f)



## FPD Guide to 2007 Annual Meeting

### Forest Bioproducts Engineering

Thursday, 8 November 2007– Room 355 C (Salt Palace Convention Center)

#### 8:30 AM-11:00 AM– Session #533

- 8:30 AM Design Philosophy of Activated Sludge Process in Effluent Treatment Plant of A Kraft Mill Based on Indian Mixed Hardwoods and Bamboo  
**Amiya K. Ray**, Anirban Roy, Neha Bhaskar, Piyush Tiwari, Swodha Jha (533a)
- 8:55 AM Solid And Microcellular Polylactide-Carbon Nanotube Nanocomposites  
**Shaoqin (Sarah) Gong**, Srikanth Pilla, Adam Kramschuster, Alexander Chandra, Lih-Sheng Turng (533b)
- 9:20 AM Simultaneous Heat And Mass Transport In Paper  
**Bandaru V. Ramarao**, Sergiy Lavrykov (533c)
- 9:45 AM Enhanced Bondability Of Inorganic Particles With A Cellulosic Substrate By Encapsulation With Regenerated Cellulose  
**Yulin Deng**, Kimberly Nelson (533d)
- 10:10 AM Exploring the Potential of Lantana Plant for Pulp Production in Indian Mills-An Experimental and Statistical Approach  
**Amiya K. Ray**, Manish K. Puri (533e)
- 10:35 AM Enhancement Of Cellulose Sulfation Process Using Ionic Liquid Pre-Treatment Step  
**Zhaomei Wang**, Lin Li, Siyuan Guo (533f)

### Smart Forest Products: RFID and Other Ways of Adding Value to Cellulosic Substrates

Thursday, 8 November 2007– Room 355 C (Salt Palace Convention Center)

#### 12:30 PM-3:00 PM – Session #607

- 12:30 PM Can Ubiquitous Computing Be Cheap?  
**Paul Rasband** (607a)
- 1:00 PM Development of An RFID Lab to Evaluate Smart Forest Products  
**Gary F. Madsen** (607b)
- 1:30 PM Printed Electronics at Western Michigan University  
**Paul D. Fleming III**, Bradley Bazuin, Marian Rebros, Erika Hrehorova, Margaret K. Joyce, Alexandra Pekarovicova, Valery Bliznyuk (607c)
- 2:00 PM Printed RFID Tags: Materials, Processes, and Devices  
**Vivek Subramanian**, Daniel Soltman, Daniel Huang, Steven Molesa (607d)
- 2:30 PM The Future of Smart Packaging and RFID: The Path to Widespread Adoption (Panel Discussion)  
**Paul Rasband**, **Jeff Lindsay**, Gary F. Madsen, Vivek Subramanian,



## FPD Guide to 2007 Annual Meeting

Paul D. Fleming III (607e)

### Renewable Fiber Processes

Thursday, 8 November 2007– Room 355 C (Salt Palace Convention Center)

#### 3:30 PM-5:45 PM – Session #647

- 3:30 PM Modelling and Optimization of Washing Plant of A Paper Mill  
**Amiya K. Ray (647a)**
- 3:55 PM Modeling H Factor-Kappa Number for Kraft Pulping of Lantana Camara Plant- An Experimental Investigation  
**Amiya K. Ray, Manish K. Puri (647b)**
- 4:20 PM Hot-Water Extraction Of Aspen Woodchips  
**Shijie Liu, Yang Wang, Thomas E. Amidon (647c)**
- 4:45 PM New Pretreatment Method For Biofuels Production From Lignocellulosic Biomass  
**Yulin Deng, Yulin Zhao (647d)**
- 5:10 PM Increasing The Economic Efficiency Of Feedstock Used For Greenhouse Heating  
**Monty Singletary, Mark Bricka (647e)**

### Sustainable Biorefineries

Wednesday, 7 November 2007– Room 355 E (Salt Palace Convention Center)

#### 8:30 PM-11:00 PM - Session #382 - Sustainable Biorefineries Plenary (Invited Papers)

- 8:30 AM Biofuels and Biobased Products – Making Them Competitive and Sustainable  
**Robert L. Fireovid 382a**
- 9:00 AM Strategic Assessment of Prospective Biomass-to-Biofuel (B2B) Conversion Processes  
**Gregory Stephanopoulos 382b**
- 9:30 AM Sustainable Production of Liquid Transportation Fuels from Biomass - from Fields to Wheels  
**Paul F. Bryan 382c**
- 10:00 AM Second Generation Biofuels and Biochemicals: An Industry Perspective  
**Todd A. Werpy, Paul Bloom, Michael Pacheco 382d**
- 10:30 AM Cellulose-to-Ethanol Technology: An Update from Iogen  
**Glenn D. Munkvold 382e**

Wednesday, November 7, 2007 Room 250 F (Salt Palace Convention Center)

#### 12:30 PM-3:00 PM - Session #400 - Catalytic Conversion of Renewable Resources to Synthesis Gases and Pyrolysis Oils



## FPD Guide to 2007 Annual Meeting

- 12:30 PM Survey of Commercial Biomass Gasifiers  
**James T. Cobb Jr.** 400a
- 12:55 PM Characterization of a Novel Gasification Transport Reactor for Conversion of Biomass  
**Larry Pearson**, Hossein Toghiani, Brian M. Kauffman, Rebecca K. Toghiani, John A. Etheridge, R. Arunkumar, Jay McCown 400b
- 1:20 PM Gasification Of Biomass Constituents By Supercritical Water In A Microchannel Reactor  
**Aaron Goodwin**, Greg Rorrer 400c
- 1:45 PM Utilization Of Biorenewable Materials For Producing Energy, Chemicals, And Fuels Via Fast Pyrolysis Approach  
**Justinus A. Satrio**, Robert C. Brown 400d
- 2:10 PM A Comparative Study Of Rapid Pyrolysis Oils From Woody Biomass And Poultry Litter  
**Foster Agblevor**, Frederick Teye 400e
- 2:35 PM Catalytic Upgrading Of Bio-Oil Vapor  
**Vamshi K. Guda**, Hossein Toghiani, Charles U. Pittman Jr., Amit C. Gujar, Ravi Challa, Phil Steele 400f

### Wednesday, November 7, 2007 Room 250 C (Salt Palace Convention Center)

#### 12:30 PM-3:00 PM - Session #404 - Chemical and Catalytic Conversions and Processes for Renewable Feedstocks

- 12:30 PM Aqueous-Phase Hydrogenation Of Organic Acids On Monometallic Supported Catalysts: A Combined Experimental And Theoretical Study  
**Ye Xu**, Hakan O. Olcay, George Huber 404a
- 12:55 PM A Kinetic and Mass Transfer Model for Glycerol Hydrogenation in A Trickle Bed Reactor  
**Yaoyan Xi**, Johnathan E. Holladay, Aaron A. Oberg, John G. Frye, James E. Jackson, Dennis J. Miller 404b
- 1:20 PM Potential For Producing Propylene Oxide And Other Oxygenated C3 Hydrocarbons From Propylene Glycol Derived From Glycerin  
**Surupa D. Abraham**, Eric J. Doskocil 404c
- 1:45 PM Biofuel Production By Catalytic Fast Pyrolysis  
Tushar Vispute, Torren Carlson, **George Huber** 404d
- 2:10 PM Effect of Metallic Compounds Addition on the Decrease in Tar Yield during Pyrolysis of Biomass  
Kosuke Fujimoto, **Yoshikage Ohmukai**, Shigeya Hayashi, Isao Hasegawa, Kazuhiro Mae 404e
- 2:35 PM Process Modeling And Economic Evaluation Of Mix Alco Process To Produce Various C2 To C7 Chemicals  
**Parag S. Shah**, Peter van Walsum 404f



## FPD Guide to 2007 Annual Meeting

### Wednesday, 7 November 2007 – Room 250 B (Salt Palace Convention Center)

#### 3:30 PM-6:00 PM - Session #471 - Feedstocks and Byproducts: Matching Chemistry to Processes at the Biorefinery Interface

- 3:30 PM High-Throughput Chemical Analysis of Switchgrass Feedstocks  
**Bonnie R. Hames**, Tanya M. Kruse, Thomas W. Johnson, Amr Ragab471a
- 3:55 PM Lignocellulosic Biomass Quality Changes in Relation to Available Feedstock Tonnage  
**Corey Radtke**, Douglas L. Karlen, Stuart Birrell, Lynn Petzke, Peter A. Pryfogle, J. Richard Hess471b
- 4:20 PM Influence of Collection Method on the Sugar and Ethanol Processing Characteristics  
**Michael D. Montross**, Corey Radtke, Czarena Crofcheck, S. A. Shearer471c
- 4:45 PM Strategies to Conduct Effective Co-Fermentation on Cellulosic Hydrolysates from Afex-Pretreated Feedstocks  
Ming Woei Lau, **Bruce E. Dale**471d
- 5:10 PM Large Scale Biomass Plant in Kansas: Current Status of Biomass  
**Thomas W. Robb**, Jeremy Mall471e

### Wednesday, 7 November 2007 – Room 250 C (Salt Palace Convention Center)

#### 3:30 PM-6:00 PM - Session # 498 - Reactor Engineering for Biomass Feedstocks

- 3:30 PM A Free Energy Landscape Study Of The Reverse Hydrolysis Reactions Of Xylose In Acidic Aqueous Solutions  
**Haitao Dong**, Mark Nimlos, Xianghong Qian498a
- 3:55 PM Design of Hydrothermal Treatment Process to Convert Agriculture by-Products into Biofuel and Biochemicals  
**Kazuhiro Mochidzuki**, Akiyoshi Sakoda498b
- 4:20 PM Advanced Biomass Gasification for the Production of Biopower, Fuels, and Chemicals  
**Mark A. Paisley**498c
- 4:45 PM Influence of Moisture Content of Woody Biomass on Heat Transfer with the Heterogeneous Chemical Reactions Caused in the Pyrolysis  
**Ken-ichiro Tanoue**, Thaug Oo, Tatsuya Hinauchi, Tatsuo Nishimura, Miki Taniguchi, Ken-ichi Sasauchi498d
- 5:10 PM Reactor Characteristics for the Suspended-Catalyst Scwg Process  
**Yukihiko Matsumura**, Shotaro Hara, Shuhei Inoue, Tomoaki Minowa, Yoji Noda, Yoshihisa Shimizu498e
- 5:35 PM Biocarbon Production From Banagrass Using Flash Carbonization™ Process For Metallurgical Use



## FPD Guide to 2007 Annual Meeting

Takuya Yoshida, Russell Yost, Michael J. Antal Jr. [498f](#)

### Wednesday, 7 November 2007– Exhibit Hall B (Salt Palace Convention Center)

#### 4:30 PM-6:30 PM - Session # 513 - Sustainability and Sustainable Biorefineries Poster Session

### Thursday, 8 November 2007– Room 250 A (Salt Palace Convention Center)

#### 8:30 PM-11:00 PM - Session # 554 - Pretreatment of Lignocellulosic Biomass and Interactions with Other Processing Steps I

- 8:30 AM Comparative Sugar Recovery Yields For Pretreatment Of Corn Stover And Poplar By Leading Technologies Followed By Enzymatic Hydrolysis Of The Remaining Solids  
**Charles E. Wyman**, Bruce Dale, Richard T. Elander, Mark T. Holtzapple, Michael Ladisch, Y. Y. Lee, Colin Mitchinson, John N. Saddler[554a](#)
- 8:55 AM Xylanase Supplementation During Saccharification Of Corn Stover And Poplar  
**Renata Bura**, Richard Chandra, Jack Saddler[554b](#)
- 9:20 AM Lime Pretreatment Of Poplar Wood  
**Mark T. Holtzapple**, Rocio Sierra[554c](#)
- 9:45 AM Enzymatic Digestion And Fermentation Of Liquid Hot Water Pretreated Yellow Poplar  
**Michael Ladisch**, Youngmi Kim, Nathan Mosier, Mira Sedlak, Nancy W. Y. Ho[554d](#)
- 10:10 AM Relating Enzymatic Hydrolysis Yields To Substrate Features For Corn Stover And Poplar Solids Produced By Leading Pretreatment Technologies  
**Rajeev Kumar**, Bruce Dale, Richard T. Elander, Mark T. Holtzapple, Michael Ladisch, Y. Y. Lee, Colin Mitchinson, John N. Saddler, Charles E. Wyman[554e](#)
- 10:35 AM Logistical Support And Modeling Efforts In Pretreatment Research  
**Tim Eggeman**, Richard T. Elander[554f](#)

### Thursday, November 8, 2007 Room 250 B (Salt Palace Convention Center)

#### 12:30 PM-3:00 PM - Session # 574 - Biological Conversions and Processes for Renewable Feedstocks

- 12:30 PM Lactic Acid Production From Paper Sludge Using Thermophilic Bacteria  
**Naresh K. Budhavaram**, Zhiliang Fan[574a](#)
- 12:55 PM Enzymatic Hydrolysis And Fermentation For Afex Treated Corn Stover- An Integrated Biorefinery Approach[574b](#)  
Leonardo D. Sousa, **Venkatesh Balan**, Shishir P. S. Chundawat, Derek





## FPD Guide to 2007 Annual Meeting

- Marshall, Bruce E. Dale, Patricia J. Slininger
- 1:20 PM Enzyme Engineering of Isolates from Thermoacidophiles for Enhanced Saccharification and Pretreatment Consolidation  
**Blake A. Simmons**, Rajat Sapra, Diana Roe, Jean-Loup Faulon, Joanne Volponi, George Buffleben<sup>574c</sup>
- 1:45 PM Production of Xylitol from Agricultural Hemicellulosic Biomass  
**David Demirjian**, Ryan D. Woodyer, Mike Racine, Badal C. Saha<sup>574d</sup>
- 2:10 PM Effect of Bsa Treatment on Batch and Continuous Enzymatic Hydrolysis of Pretreated Corn Stover  
**Michael Studer**, Simone Brethauer, Bin Yang, Charles E. Wyman<sup>574e</sup>
- 2:35 PM A Novel Approach For Conversion Of Xylose To Ethanol Using Native Yeast Strains  
**Kripa Rao**, Sasidhar Varanasi, Patricia Relue, Constance Schall<sup>574f</sup>

### Thursday, November 8, 2007 Room 250 A (Salt Palace Convention Center)

#### 12:30 PM-3:00 PM - Session # 603 - Pretreatment of Lignocellulosic Biomass and Interactions with Other Processing Steps II

- 12:30 PM Performance Of Alkaline Pretreatment As Affected By Reagent, Mode Of Reaction, And Feedstock Composition  
**Rajesh Gupta**, Y. Y. Lee<sup>603a</sup>
- 12:55 PM Hydrolysis of Sucrose in Dilute Sulfuric Acid Solutions at Pretreatment Conditions for Lignocellulosic Biomass  
Dan Schell, **Ranil Wickramasinghe**<sup>603d</sup>
- 1:20 PM Kinetics And Modeling Of Xylan Hydrolysis And Xylose Dehydration And Reversion During Acid Pretreatment  
**Mark R. Nimlos**, Heidi M. Pilath, David K. Johnson, Michael E. Himmel, Xianghong Qian, Haitao Dong<sup>603c</sup>
- 1:45 PM Synergistic Hydrolysis Of Afex Treated Corn Stover & Poplar Using Automated 96-Well Microplate Assay  
Shishir Chundawat, **Venkatesh Balan**, Bruce E. Dale<sup>603b</sup>
- 2:10 PM Quantitative Solid-State NMR Characterization of Solid Residues Produced Using Different Acids in the Hydrolysis of Loblolly Pine  
**Carsten Sievers**, Teresita Marzalletti, Travis Hoskins, Mariefel B. Valenzuela, Pradeep K. Agrawal, Christopher W. Jones<sup>603e</sup>
- 2:35 PM Differences In The Dilute Acid Pretreatment Of Corn Stover Anatomical Fractions  
**David K. Johnson**, David W. Templeton, Todd B. Vinzant, Steven R. Thomas<sup>603f</sup>

### Thursday, November 8, 2007 Room 252 A & B (Salt Palace Convention Center)

#### 3:30 PM-6:00 PM - Session # 634 - Life Cycle Analysis of Renewable Feedstock-Based Processes and Products



## FPD Guide to 2007 Annual Meeting

- 3:30 PM I-Farm - Modeling Biomass Production From A Farmer's Perspective  
Ed Van Ouwerkerk, **Tom L. Richard**, Rob Anex634a
- 3:55 PM Effects Of Nitrogen Fertilizer On The Ethanol Fuel System  
Seungdo Kim, **Bruce Dale**634b
- 4:20 PM Optimal Utilization Of Biomass Inputs In An Integrated Biorefinery  
**Norman E. Sammons Jr.**, Wei Yuan, Mario R. Eden, Burak Aksoy, Harry T. Cullinan634c
- 4:45 PM Life Cycle Analysis Of A Renewable Lumber Preservative  
**Monty Singletary**, Mark Bricka, Phile Steele634d
- 5:10 PM Life Cycle Analysis of Charcoal Production from Biomass  
**Sudhagar Mani**, Keshav Das634e
- 5:35 PM An Integrated Systems Approach To Reducing Energy Inputs While Maximizing Conversion To Ethanol From Alternative Feedstocks  
**Kimberly Ogden**634f

### Thursday, November 8, 2007 Room 250 A (Salt Palace Convention Center)

#### 3:30 PM-6:00 PM - Session # 644 - Pretreatment of Lignocellulosic Biomass and Interactions with Other Processing Steps III

- 3:30 PM Conformational Energies of Cellobiohydrolase I Linker on Cellulose Surface  
**Xiongce Zhao**, Clare McCabe, Michael E. Himmel644a
- 3:55 PM Kinetic Measurements Of The Enzymatic Hydrolysis Of Microcrystalline Cellulose By In Situ Afm  
**Dean C. Dibble**, Blake A. Simmons644b
- 4:20 PM Pretreatment Of Biomass With Surfactants  
Qing Qing, Michael Studer, **Bin Yang**, Charles Wyman644c
- 4:45 PM Microbial Conditioning and Pretreatment of Grasses for Ethanol and Lignin Co-Products  
**Swetha Mahalaxmi**, Ashwini Thakre, Clint Williford, Colin Jackson644d
- 5:10 PM Interactions Of Ensiled Storage With Biomass Pretreatment  
**Tom L. Richard**, Qin Chen, Corey Radtke, Lynn Petzke, Megan Marshall, Kevin Shinnors644e
- 5:35 PM Modified Dry Grind Process Integrating Cellulosic Ethanol From Distiller's Grains  
**Youngmi Kim**, Rick Hendrickson, Nathan Mosier, Michael Ladisch644f

### Friday, November 9, 2007 Room 250 B (Salt Palace Convention Center)

#### 8:30 PM-11:00 PM - Session # 655 - Developments in Biobased Alternative Fuels

- 8:30 AM Optimization of a Biomass Fractionation Process and Evaluation of Its Economic Feasibility  
**Kiran L. Kadam**, Chim Y. Chin, Lawrence W. Brown655a
- 8:55 AM Pretreatment and Fractionation of Corn Stover Using Seaa (Soaking In Ethanol and Aqueous Ammonia)



## FPD Guide to 2007 Annual Meeting

- Tae Hyun Kim**, Nhuan-John Nghiem, Kevin B. Hicks655b
- 9:20 AM Biomass and MSW to Liquid Fuels and Chemicals Via Gasification  
**Ben Phillips**655c
- 9:45 AM Two Phase Anaerobic Treatment Process for Hydrogen and Electricity Production from Biodiesel Glycerol Waste  
**Baris Calli**, Karolien Vanbroekhoven, Ludo Diels655d
- 10:10 AM Immobilized Biological Hydrogen Fermentation with Chloroform Treated Granule  
**Bo Hu**, Shulin Chen655e
- 10:35 AM Use of Gas Transfer Membranes for Recovery of Renewable Energy in Anaerobic Digesters  
**Nilesh K. Patel**, Carlos D. M. Filipe655f

### Friday, November 9, 2007 Room 250 A (Salt Palace Convention Center)

#### 8:30 PM-11:00 PM - Session # 661 - Separations and Processing of Streams Derived from Renewable Feedstocks

- 8:30 AM Removal And Recovery Of Solvents From Fermentation Broth By Pervaporation Using Liquid Membrane  
**Atsawin Thongsukmak**, Kamallesh K. Sirkar661a
- 8:55 AM Using Regional Biomass Processing To Co-Produce Animal Feed And Ethanol From Grasses  
Bryan Bals, Hannah Murnen, **Bruce Dale**, Michael Allen, David Main661b
- 9:20 AM Towards An Understanding Of Ionic Liquid Pretreatment Process Of Lignocellulosic Biomass: Recovery Of Ionic Liquid And Analysis Of Process Streams  
**Anantharam P. Dadi**, Noureen Faizee, Kripa Rao, Sasidhar Varanasi, Constance A. Schall, Jared L. Anderson661c
- 9:45 AM Production and Hydrolysis of Electrospun Cellulose Fibers  
**Heidi J. Park**, John W. Dingee, Sean R. Fitzgibbon, A. Brad Anton, Yong Lak Joo
- 10:10 AM Rheology Of Biomass Slurries661d  
**C. Tim Scott**, Max Ehrhardt, Jianghui Wang, Thatcher Root, Dan Klingenberg
- 10:35 AM Ethanol Enrichment by Corn Grit Adsorbents661e  
**Youngmi Kim**, Nathan Mosier, Rick Hendrickson, Yifei Zang, Ahmad Hilaly, Joe Beggin, Kyle Beery, Michael Ladisch661f



## FPD Guide to 2007 Annual Meeting

### OTHER SESSIONS OF INTEREST

Monday, 5 November 2006: 8:30 AM-11:00 AM, Room 155 B (Salt Palace Convention Center)

#59 - Sustainability Plenary

Monday, 5 November 2006: 12:30 PM-3:00 PM, Room 155 B (Salt Palace Convention Center)

#110 – Sustainable Energy

**FPD Chair Jeff Lindsay is also chairing a session on intellectual property with Division 10 (CAST):**

**Monday, November 5, 2007 Room 155 A (Salt Palace Convention Center)**

**3:30 PM-6:00 PM - Session #127 - Intellectual Assets in the Digital Era**

3:30 PM IP Law: The Underpinnings of Intellectual Assets

**Ken Horton** (Westminster College) [127a](#)

4:00 PM Strategic Inventing and the Need for IP Education

**Nicholas Nissing** (Animal Genomics, Monsanto) [127b](#)

4:30 PM Start-Ups Made Easy: Perspectives for Chemical Engineers

**Michael Alder** (Technology Transfer Office, Brigham Young University) [127c](#)

5:00 PM Dealing with Disruptive Innovation: The Role of Patents and Defensive Publications

**Jeff Lindsay** (Innovation Edge) [127d](#)

5:30 PM Key Intellectual Property Issues for Chemical Engineers (Panel Discussion)

**Jonathan Lee** (Holland and Hart), **Michael Alder**, **Nicholas Nissing**, **Ken Horton**, and **Jeff Lindsay** [127e](#)



## FPD Guide to 2007 Annual Meeting

### EVENTS

#### Sunday, 4 November 2007

##### [AICHE Welcome Reception](#)

6:30 PM – 8:30 PM, South Foyer (Salt Palace Convention Center)  
Visit with friends, network with colleagues, and meet Institute and Industry leaders and others. Enjoy a variety of hot and cold appetizers as well as a cash bar for cocktails and beverages.

#### Tuesday, November 6, 2007

##### **NSF Workshop #254 and 312**

12:30 PM-3:00 PM and 3:30 PM -6:00 PM

Room 251 C (Salt Palace Convention Center)

The NSF initiatives related to chemical engineering will be described by their respective program directors.

#### Wednesday, 7 Nov. 2007 **(FOREST PRODUCTS DIVISION EVENTS)**

##### **Forest Products Division Annual Planning & Business Meeting**

6:00PM – 7:15PM

Executive Boardroom (2nd Floor)

Marriott Downtown

##### **Forest Products Division Dinner and Discussion**

(please RSVP to Jeff Lindsay: 920-428-1878 or [jlindsay@innovationedge.com](mailto:jlindsay@innovationedge.com))

7:30-9:30 PM

Lamb's Grill Café (<http://lambsgrill.com/>)

169 S. Main Street, Salt Lake City - 801-364-7166

(individual checks)

### WE WANT YOUR FEEDBACK!

For those engineers that have regularly attended the AICHE Annual Meeting, navigating the many sessions was an imposing challenge. The Forest Products Division Directors, Officers, and other volunteers contributed to this guide to make this growing event more manageable. We welcome your comments on this guide. Please let us know if you would like to see guides for future Annual Meetings. Please e-mail Dr. Lei Kerr, [kerrll@muohio.edu](mailto:kerrll@muohio.edu) if you found this guide useful or have suggestions for improvement.