<table>
<thead>
<tr>
<th>SESSION</th>
<th>TITLE, AUTHOR</th>
</tr>
</thead>
</table>
| 17-1    | Thick or Thin? Selection and Application of Fine Screening Equipment for Contaminant and Stickies Removal  
May Fursey / 433 |
| 17-2    | Water Pinch Application for a Deink Mill Case Study  
Demetrios S. Koufos and Theodora Retsina / 447 |
| 17-3    | Advanced Technologies in Pulping, Detrashing, and Coarse Screening Make the Difference for OCC and Mixed Waste Systems  
Frank P. Meltzer / 459 |
|         | Operational Issues Breakfast  
Billy Watson / 473 |
| 1D      | Pulp Quality Tutorial - The Impact on Papermaking Fundamentals and Mill Experiences  
Douglas W Reeve |
|         | The Impact of Ozone and Oxygen  
Patricia Hurter / 475 |
|         | Conversion to ECF  
Dan Coughlin / 481 |
|         | Effect of Pulp Mill Process Changes on Pulp Quality A Case Study  
Brian La Brash / 483 |
| 1E      | Pulp Quality Tutorial — the Impact on Papermaking Fundamentals and Mill Experiences  
Sally Love / 493 |
| 18      | Nonwood Fiber Resources: The Realities of Current Supply Infrastructure — Panel Discussion  
Frank A. Riccio / 495 |
| 19-1    | Pulp and Paper Technology in the Americas, Europe, and Asia. Who Will be Ahead in the New Millennium?  
Jurgen D. Kramer / 497 |
| 19-2    | Why Choose DIP over Virgin Hardwood Pulp?  
L. Ferguson, C. Henriksson, R. Shaw, and T. Clausen / 513 |
| 20-1    | Effluent Manganese Limit Poses a Special Problem for a Bleached Kraft Pulp Mill on a Small River  
Eva Mannisto, Grant Bourree, and George Wohlgemuth / 521 |
| 20-2    | Fresh Water Usage Reduction through Concentration of Pulp Mill Effluent Using a Gas Hydrate/Evaporation Hybrid  
Jason B. Smith, Wei Wang, Jeffery S. Hsieh, and Peter X. Long / 531 |
| 20-3    | Six Steps to Developing a Best Management Practices (BMP) Plan for Spent Liquor Management  
Kirsten Vice, Paul Stuart, Tony Johnson, and Teri Ard / 543 |
| 21-1    | Caustic-Free Repulping for Newsprint Production — Part I  
Daniel J. Dingman and Christopher D. Perry / 553 |
| 21-2    | Addition of Sodium Silicate and Chelant to the FAS Stage to Bleach Recycled Fibers  
G. J. Kang, Y. Ni, and A.R.P. van Heiningen / 571 |
| 21-3    | Assessment of Recycled Pulp Color Removal by the Spectral Reflectance Analysis  
Goda Rangamannar and R. J. DeRoe / 579 |
| 22-1    | Kinetics of Delignification during Magnesium Bisulfite Pulping  
Jianghua Li, Guojun Kang, and Adriaan R. P. van Heiningen / 589 |
| 22-2    | Improving Sulfite Pulp Quality and Mill Operations through the Removal of Fines  
John F. Hinck and Ulf Wallendahl / 601 |
<table>
<thead>
<tr>
<th>SESSION</th>
<th>TITLE, AUTHOR</th>
</tr>
</thead>
</table>
| 23      | Understanding and Dealing with the "Summer Effect"  
R. Daniel Haynes / 609 |
| 24-1    | About the Efficiency of the Most Common Bleaching Agents  
Dominique Lachenal and Christine Chirat / 623 |
| 24-2    | Inorganic Reactions in Chlorine Dioxide Bleaching of Softwood Kraft Pulp  
Douglas R. Svenson, Hasan Jameel, Hou-min Chang, and John F. Kadla / 631 |
| 24-3    | Combining Chlorine Dioxide Bleaching of Birch Kraft Pulp with an A-Stage at High Temperatures  
Sari Juutilainen, Tapani Vuorinen, Aki Vilpponen, Kaj Henrikson, and Olavi Pikka / 645 |
| 25-1    | Biotechnology in Dissolving Pulp Manufacture  
Lew Christov / 653 |
| 25-2    | Cansolv® System Recycling of Sulfur Pulping Chemicals Reduces Emissions and Cost  
Leo R. Hakka / 661 |
| 25-3    | Conversion of an Acid Sulfite Mill to the ASAM Process for Improved Quality and Economics  
Rudolf Patt, Othar Kordsachia, Lewis D. Shackford, and Lee N. Rockvam / 667 |
| 26-1    | Elementary Flax Fibers for Disposable Nonwovens  
Gerrit J. van Roekel, Jr. and Ed de Jong / 677 |
| 26-2    | Canadian Oil Seed Flax in Traditional Pulping  
Ulrike Tschirmer and Jagannadh Satyavolu / 683 |
| 26-3    | Pulping, Bleaching and Papermaking Potential of Flax Fibre and Shives  
Saffet Karakus and D. N. Roy, Krishan Goel, Barbara Isman, and Jagannadh V. Satyavolu / 689 |
| 27A     | Activated Oxygen and Peroxide Bleaching — Part 1  
J. Richard Presley |
| 27A-1   | Catalysis is a Key to a Better Future for the Pulp and Paper Industry  
Terrence J. Collins and Colin P. Horwitz / 703 |
| 27A-2   | Application of a Manganese Based Peroxide Catalyst in Kraft Pulp Bleaching  
Lutz Kühne, Othar Kordsachia, J. Odermatt, and Rudolf Patt / 711 |
| 27B     | Activated Oxygen and Peroxide Bleaching — Part 2  
J. Richard Presley |
| 27B-3   | Panel Discussion  
Sally Love / 723 |
| 28      | Cutting Edge Rapid Analysis of Wood Properties Panel Discussion  
Art Wiselogel / 725 |
| 29      | The Feasibility of Integrating Nonwood Resources into Existing Wood Pulp Operations Interactive Discussion Session  
Robert W. Hurter / 727 |
| 30-1    | Energy Consequences when Integrating a Black Liquor Gasifier into a Pulp Mill  
Anna Isaksson, Martin Andrén, Mikael Ahlroth, Jinyue Yan and Gunnar Svedberg / 729 |
| 30-2    | Alternative Method to Apply Ozone in ECF Bleaching: The Z3 Technology  
Jorge L. Colodette, Purvish Shah, Ana Campos de Brito, and Elias Salvador / 741 |
| 30-3    | Acoustic Separation of Moving Fibers in a Pulp Flow  
<table>
<thead>
<tr>
<th>SESSION</th>
<th>TITLE, AUTHOR</th>
</tr>
</thead>
</table>
| 31-2    | Multiple Effect Evaporator Condensate Segregation Options for MACT I Compliance  
Gerald R. Mittet, Richard Garber, and Paul Baldwin  / 785 |
| 31-3    | Quantitative Risk Assessment: A Useful Management Tool for Minimizing Risk  
Sami Atallah, Naveen Gupta, and Arturo de la Garza G.  / 799 |
| 32      | Cluster Rule — Brown Stock Washing and Condensate Handling Panel Discussion  
Doug Foran  / 813 |
| 33      | Supplier Open Forum Interactive Discussion Session  
James R. Thompson  / 815 |
| 34-1    | Enhancing Pressurized Peroxide Bleaching of Kraft Pulps with Organophosphate-Based Bleach Stabilizers  
Brian N. Brogdon, John M. Bell, and Kevin M. Hale  / 817 |
| 35-1    | Characterization of Canadian Agricultural Residues and their Pulps  
Paul Bicho, Wai Gee, Bernard Yuen, Sushma Mahajan, Maxwell McRae, and Paul Watson  / 829 |
| 35-2    | Genetic and Environmental Influences on the Chemical Composition of Washington State Wheat Straw  
Roberta S. Jacobs, William T. McKean, William L. Pan, and William S. Fuller  / 839 |
| 35-3    | Straw Pulp Mills Need Integration for Survival  
Jay T. Jeyasingam  / 847 |