**KEYNOTE & Plenary PRESENTATIONS**

18. **Opening Plenary Lecture** “Creating Supramolecular Structures with Cellulose Nanocrystals” 4th International Symposium on Emerging Technologies of Puling & Papermaking, November 8-10 2010, Guangzhou, China.

17. **Keynote Session Lecture** “Supramolecular Chemistry Using Nature’s Most Ambundant Template; The Cellulose Nanocrystal” International Workshop on Wood Biorefinery & Tree Biotechnology 21-24 lune 2010, 0rnskldsvik, Sweden.

16. **Keynote Session Lecture** “Analytical and Other Opportunities With Dissolved Wood” Italian Lignin Chemistry Symposium, Italic5, 1-4.Sept..2009, Symp. Proceedings ISBN 978-88-95688-18-3 pp. 81-84, Varenna, Italy, 2009.

15. **Opening Lecture** “Development & Applications of 31P- NMR Spin Trapping; Toward a Detailed Understanding of the Radical Mechanism of Action of Oxidative Enzymes”, Symposium on Advances in Natural Substances Chemistry & Biology, Sala del Consiglio del Dipartimento ABAC-Vecchio Edificio di Agraria-Università della Tuscia, Italy, November 19th 2009.

14. **Plenary Keynote Lecture** ”Opportunities with Dissolved Wood for the Forest Biorefinery” 2nd Annual Biorefinery for the Pulp & Paper Industry, Dec 1-3, 2008, Radisson SAS Royal Hotel, Helsinki, Finland.

13. **Keynote Lecture** ”Towards Probing the Structure of Lignin Without is Prior Isolation Using Quantitaive 31P NMR in Ionic Liquids” COST Action E41 Analytical Tools with Applications to Wood and Pulping Chemistry, May 19-21, 2008, Turku / Åbo, Finland.

12. **Plenary Lecture**, Society for Wood & Polymer Chemistry in Finland, 50 Year Anniversary, Helsinki, Kirkkokatu 6, May 21 2008, “Ionic Liquids, Opportunities for Wood Science and Technology”.

11. **Plenary Lecture** “*On the Propensity of Lignin to Associate”*. Italian Meeting on Lignin Chemistry, *Italic 4,* University of Rome, Tor Vergata University, May 8-10, 2007

10. **Keynote Lecture** *”New Insights into Eucalyptus Lignin & Pulping Chemistry”*, 3rd International Colloquium on Eucalyptus Kraft Pulp, Bello Horizonte, Brazil March 4-7 2007.

9. **Plenary Lecture** “Understanding the Role of Mediators in the oxidation of Kraft Lignin by Laccase”;Iberoamerican Congress on Pulp & Paper Research, Madrid-Cordoba, Nov. 10-12, 2004

8 **Keynote Lecture, “**Supercritical CO2 Oxidation of Lignin for High Value Added Products” 3rd Italian Meeting on Lignin Chemistry, June 23-24, Universita Degli Study, L’Auila, pp. 2-11, 2005.

7. **Plenary Lecture** ”The Signifcance of Lignin Research to the Pulp and Paper Industry” COST Action E41 “Analytical Tools with Applications to Wood and Pulping Chemistry”Dipoli Confernce Centre, Helsinki, Finland , Oct 20,2004.

6. **Keynote Lecture,,** “New Lignin Insights into Pulping and Bleaching.”, 2nd International Symp. Emerging Technologies of Pulping and Papermaking, Guangzhou, PR., China, Oct. 9-11, 2002.

5. **Keynote Lecture,**. “Recent Advances in Wood Chemistry.”, Seventh Brazilian Symposium on the Chemistry of Lignins and Other Wood Components, Uro Minas Hotel, Bello Horizonte, PR. Brazil, Sept. 1- 4 (2001), Oral Presentations Volume, pp. 43-51.

4. **Distinguished Lecture Series,** University of British Columbia, Dept. of Chemical Engineering, “*Recent Advances in Lignin Chemistry,*”Advanced Papermaking Initiative, November 23, 2001.

3. **Plenary Lecture**, From Organic Chemistry to Organic Chemical Technologies, A Symposium In Memory of Professor G. Valkanas “*New Lignin Reactions and Future Research Directions,*” National Technical University of Athens, February 21, 2001.

2. Otaniemi Symposium on Lignin Chemistry 1999, VTT Chemical Technology, Espoo, Finland, **Plenary Lecture**, “Understanding Pulping, Bleaching and Yellowing Using Novel NMR Techniques; A Review of our Work at McGill.” November 9, 1999.

1. **Plenary Lecture,** “Fundamental NMR Studies of Lignins: Emerging Answers to Issues of Concern in Relation to Pulping, TCF Bleaching and Yellowing.”, Fifth Brazilian Symposium on the Chemistry of Lignins and Other Wood Components/Workshop of the International Energy Agency on Biotechnology Applied to Lignocellulosic Materials, Burbon Hotel, Curitiba,Brazil, Aug. 31-Sept.4 1997.

**CONFERENCE PRESENTATIONS**

**(\*Asterisk Signifies the Speaker)**

**2010**

216. Alistair King, Ilkka KIpelaned, Dimitris S. Argyropoulos, “Reactivity of Wood Biopolymers in ionic Liquids” Paper ID no 47, In Ionic Liquids; Novel Processing Platforms of Cellulose & Biomass, Pacifichem 2010, Honolulu, Hawaii, December 15-20 2010

215. Dimitris S. Argyropoulos,B. Li; J. Asikalla; I. Filpponen “Factors Affecting Wood Dissolution & Regeneration of Ionic Liquids” Paper ID no 32, In Ionic Liquids; Novel Processing Platforms of Cellulose & Biomass, Pacifichem 2010, Honolulu, Hawaii, December 15-20 2010

214. Ilari, Filpponen & Dimitris S. Argyropoulos, “Creating Supramolecular Structures with Cellulose Nanocrystals” Volume I , 4th International Symposium on Emerging Technologies of Puling & Papermaking, November 8-10 2010, Guangzhou, China.

213. Umesh P. Agarwal\*, Richard S. Reiner, Ilari Filpponen, Dimitris S. Argyropoulos, Akira Isogai, “Crystallinities of Nanocrystalline and Nanofibrillated Celluloses by FT- Raman Spectroscopy”2010 TAPPI Intl Conf on Nano for the Forest Product Industry, Dipoli Congress Centre, Sept. 27th -29th 2010, Espoo, Finland

212. Ilari Filpponen, Dimitris S Argyropoulos\*, Regular Linking of Cellulose Nanocrystals via Click Chemistry-Synthesis and Formation Chareacterization of Cellulose nanoPlatelet Gels, 11th European Workshop on Lignocellulosics & Pulp August 16-19, 2010, Hamburg, Gerrnany.

211. Janne Asikkala\*; Tarja Tamminen; Stella Rovio; Annika Smeds, Tapani Suortti; Martti Alkio; Rafaelle Saladino; Dimitris S Argyropoulos, Oxidation of lignin with hydrogen peroxide catalysed by methyltrioxorhenium in supercritical CO2 and in water,**,** 11th European Workshop on Lignocellulosics & Pulp August 16-19, 2010, Hamburg, Gerrnany.

210. [Alistair W. T. King\*, Paula Jarvi, Anna Olszewska, Ilkka Kilpelainen, Dimitris S. Argyropoulos](http://abstracts.acs.org/chem/239nm/program/view.php?obj_id=13130&terms=" \t "_blank)[Solubility of wood and wood biopolymers in ionic liquids; 239th ACS National Meeting & Exposition March 21-25, 2010, San Francisco, California, paper no, 328](http://abstracts.acs.org/chem/239nm/program/view.php?obj_id=13130&terms=" \t "_blank)

209. Li, B\*, Ilari Filpponen, Janne Asikkala, .Dimitris S Argyropoulos, Factors Affecting Woood Dissolution and Regeneration of Ionic Liquids**,** 239th ACS National Meeting & Exposition March 21-25, 2010, San Francisco, California, paper no, 129

208. [Yu Liu\*, Lucian Lucia, .Dimitris S Argyropoulos Elucidation of the lignin chemistry and delignification mechanism occurring during green liquor pretreatment and kraft pulping of softwood by the use of ionic liquids; 239th ACS National Meeting & Exposition March 21-25, 2010, San Francisco, California, paper no, 39](http://abstracts.acs.org/chem/239nm/program/view.php?obj_id=6564&terms=" \t "_blank)

207. Ilari Filpponen\*, Dimitris S Argyropoulos, “Formation & Characterization of Cellulose nanoPlatelet Gels”, 239th ACS National Meeting & Exposition March 21-25, 2010, San Francisco, California, paper no, 107

206.[Li, B\*, .Ilari Filpponen, Janne Asikkala, .Dimitris S Argyropoulos, Acid hydrolysis of wood in ionic iquids](http://abstracts.acs.org/chem/239nm/program/view.php?obj_id=6026&terms=)**,** 239th ACS National Meeting & Exposition March 21-25, 2010, San Francisco, California, paper no, 92

**2009**

205. Argyropoulos, D..S\*. ‘Green Chemistry Biomass Processing Platforms”, Society of Environmental Toxicology and Chemistry (SETAC) Annual Meeting, 30th anniversary, Green Biorefinery session, Hilton , Riverside, New Orleans, November 19-23, 2009.

204. Maija-Liisa Mattinen\*, Ilari Filpponen, Riikka Järvinen, Bin Li, Heikki Kallio, Johanna Bouhert, Pekka Lehtinen, Dimitris S. Argyropoulos, ”Structural Characterization of Suberin Isolated from Potatos;Italian Lignin Chemistry Symposium , Italic5, 1-4. Sept.2009, Symp. Proceedings ISBN 978-88-95688-18-3 pp. 36-39, Varenna, Italy, 2009.

203. Alistair King\*, Paula Järvi, Ilkka Kilpeläinen, Anna Olszewska., I., Dimitris Argyropoulos, “Solubility and Reactivity of Wood Biopolymers in Ionic Liquids” 2rd Nordic Wood Biorefining Conference , Sept.2nd to 4th Finlandia Hall, Helsinki Finland, 2009.

202. Alistair King\*, Dimitris Argyropoulos, Paula Järvi, Ilkka Kilpeläinen, Anna Olszewska., I., “Solubility and Reactivity of Wood Biopolymers in Ionic Liquids” 3rd Congress on Ionic Liquids , May 31st to June 4th Cairns Convention Centre, Cairns Australia, 2009.

201. Filpponen\*, I. & Dimitris S. Argyropoulos, “Cellulose Nanocrystrals as Scaffolds for Nandevices” Italian Lignin Chemistry Symposium , Italic5, 1-4. Sept.2009, Symp. Proceedings ISBN 978-88-95688-18-3 pp. 105-108, Varenna, Italy, 2009.

200. Luca Zoia\* & Dimitris S. Argyropoulos, “31P NMR Spin Trapping: A New Tool for Understanding Radical Mechanisms in Lignin Chemistry, Italic5, 1-4.9.2009, Symp. Proceedings ISBN 978-88-95688-18-3 pp. 71-74, Varenna, Italy, 2009.

199. Tarja Tamminen\*, Markku Leskelä, Dimitris S. Argyropoulos, Liisa Viikari, Kari Kolppo, Stefan Willför, Kristiina Poppius-Levlin, Alan Fernyhough, Lucian Lucia “LigniVal:Adding Value to Lignin”Italian Lignin Chemistry, Italic5, 1-4.9.2009, Symp. Proceedings ISBN 978-88-95688-18-3 pp. 197-198,Varenna, Italy, 2009.

198. Maija-Liisa Mattinen, Evanthia Monogioudi, Emilia Selinheimo, Raija Lantto,Kristiina Kruus, Johanna Buchert, Maarit Hellman, Nisse Kalkkinen, Perttu Permi, Nathalie Creusot, Harry Gruppen, Bin Li, Ilari Filpponen, & Dimitris S. Argyropoulos, ; Modification of Proteins by Tyrosinase and Laccase”, 237th ACS National Meeting, Salt Lake City, USA, Division of Cellulose & Renewable Materials, March 2009.

**2008**

197. Liu**\*** Yu, Huaiyu, Zhan, Jiachuan Chen, I., Argyropoulos, D. S. “Lignin Structural and Molecular Weight Changes & their Relationship 'During Kraft Pulping”, pp , International Conferecne on Pulping, Paper making & Biotechnology, Nanjing Foresty University, Nov 4-6, 2008

196. Filpponen**\***, I., Argyropoulos, D. S. “ Determination of Cellulose Reactivity by using phosphitylation and Quantitative 31P NMR spectroscopy”, pp 169-172, 10th European Workshop on Lignocellulosics & Pulp, Stockholm, Sweden, August 25-28, 2008

195 L. Zoia**\***, Argyropoulos., D. S., “Understanding the Radical Mechanism of Action of Oxidative Enzymes on the Lignocellulosic Substrate Using Quantitative 31P NMR Spin Trapping”, pp.105-108,10th European Workshop on Lignocellulosics & Pulp, Stockholm, Sweden, August 25-28, 2008

194. Järvi**\***, P., Olszewska, A King, A, Granstrom, M., Hietala, S., Kilpeläinen, I., Argyropoulos., D. S., “Study of the Rheological Behaviour of Micro Crystalline Cellulose, Dissolved in Two Different Ionic Liquids.”pp177-180, 10th European Workshop on Lignocellulosics & Pulp, Stockholm, Sweden, August 25-28, 2008

193.Mattinen,\* M. L. Suortti,T., Gosselink, R., Argyropoulos, D. S, Evtuguin, D., Suurnäkki, A., de Jong, E., Tamminen, T., “Polymerization of Different Lignins by *Trametes* *Hirsuta* Laccase” 10th European Workshop on Lignocellulosics & Pulp, Stockholm, Sweden, pp.201-204, August 25-28, 2008

192 L. Zoia**\***, Argyropoulos., D. S., “Microwave Assisted Lignin Isolation Using the Enzymatic Mild Acid Hydrolysis (EMAL) Protocol” 10th European Workshop on Lignocellulosics & Pulp, Stockholm, pp. 490-493, Sweden, August 25-28, 2008

191. King**\***, A., Järvi, P., Olszewska, A. M., Kilpeläinen, I., Argyropoulos., D. S., “*In-Situ* Quantitative Analysis and Discussion of Lignin Functionalities in Wood Based on Ionic Liquids.” pp. 32-35, 10th European Workshop on Lignocellulosics & Pulp, Stockholm, Sweden, August 25-28, 2008

190. Olszewska**\*** A. M. Järvi, P., King , A., Kilpeläinen, I., Argyropoulos., D. S., “Determination of theMolecular Weight Distribution of Intact Spruce Wood Acetylated in Ionic Liquid Media” pp. 222-225, 10th European Workshop on Lignocellulosics & Pulp, Stockholm, Sweden, August 25-28, 2008

189. Filpponen**\***, I., Argyropoulos, D. S. “ Determination of the accessible hydroxyl groups in cellulose by using phosphitylation and 31P NMR spectroscopy” 235rd ACS National Meeting, New Orleans, LA, April 6-10, 2008, Paper #1058041.1169284

188. Filpponen**\***, I., Argyropoulos, D. S. and L. Lucia “ Cellulose Nanocrystals as Scaffolds or Nanodevises.” 235rd ACS National Meeting, New Orleans, LA, April 6-10, 2008, Paper #1168143

187. Xie**\***, H., King, A., Kilpelainen, I., Granström, M., Argyropoulos, D. S. ”Thorough Chemical Modification of Wood Based Lignocellulosic Materials in Ionic Liquids” 235rd ACS National Meeting, New Orleans, LA, April 6-10, 2008, Paper #1058041.

186. King**\***, A., Sun, H., Xie, H. Kilpelainen, I. Granstrom M., I., Argyropoulos, D. S. “ Novel Ionic Solvents for Lignocellulose Analysis and Derivatisation” 235rd ACS National MeWood based Lignocellulosic Materials in Ionic Liquids”, 235rd ACS National Meeting, New Orleans, LA, April 6-10, 2008, Paper #1058041.1168143

185. Contreras**\***, S., Argyropoulos, D. S. and L. Lucia “On the Propensity of Lignin to Associate; Static Light Scattering Measurements on Native Lignin” 235rd ACS National Meeting, New Orleans, LA, April 6-10, 2008.

**2007**

184. King\* W. T. Alistair, Xie Haibo, Kilpelainnen Ilkka, , Argyropoulos, D. S, “Protocols for 31P NMR Analysis of Lignocellulosics Using Ionic Liquids T*”*. 2nd International Congress on Ionic Liquids , August 5-10, 2007, Yokohama , Japan .

183. King\* W. T. Alistair, Xie Haibo, Granstrom, Mari, Kilpelainnen Ilkka, , Argyropoulos, D. S, “Toward an Understanding of the Wood Dissolution Process in Ionic Liquids*”*. 11th Annual Green Chemistry and Engineering Conference , Paper no. 16, June 26-29, 2007, Washington DC. USA.

182. Ilari Filpponen\*, Xinqwu Wang, Lucian A. Lucia, Dimitris S. Argyropoulos, *“Formation and Thermal Properties of Cellulose Nanocrystals*” – International Conference on Nanotechnology for Forest Products Industry , Knoxville, Tennessee, USA, June 13-15, 2007.

181. Kilpelainnen\* Ilkka, Xie Haibo, Granstrom Mari, King Alistair, , Argyropoulos, Dimitris S, “*Wood Solutions”*. Italian Meeting on Lignin Chemistry, *Italic 4,* University of Rome, Tor Vergata University, pp. 45-48, May 8-10, 2007

180. Guerra, A., Gaspar, A., Contreras, I. S., Lucia L., Crestini, C., Argyropoulos\*, D. S., *“On the Propensity of Lignin to Associate”*, International Symposium on Wood, Fiber & Pulping Chemistry, Durban South Africa June 25-28, 2007.

179. Haibo Xie,\* Dimitris S. Argyropoulos, Ionic Liquids: A Powerful Tool for Biorefineries, Advance Polymeric Materials Symposium of Chinese Academy of Sciences, Ningbo Institute of Material Technology & Engineering, Chinese Academy of Sciences, May 5-May 9, 2008.

178. Guerra, A., Filpponen, I., Lucia, L., Argyropoulos\*, D. S., “*On the Virtues of the Enzymatic Mild Acidolysis Lignin ( EMAL) Isolation Process”* International Symposium on Wood, Fiber & Pulping Chemistry, Durban South Africa June 25-28, 2007.

177. Soriano, J., Venditti, R., Argyropoulos\*, D.S. , “*The Concept of Critical Micelle Pressure and its Utility towards Natural Product Extraction from Complex Natural Substartes”* International Symposium on Wood, Fiber & Pulping Chemistry, Durban South Africa June 25-28, 2007.

176. Filpponen\*, I., Guerra, A., Hai, A., Lucia, L., Argyropoulos, D. S., “*Spectral Monitoring of the Formation and Degradation of Polysulfide Ions in Alkaline Conditions”* International Symposium on Wood, Fiber & Pulping Chemistry, Durban South Africa June 25-28, 2007..

175. Ysambertt\*, F., Infante M. , Rojas O.J., Gaspar A., Argyropoulos D.S., Bravo, B., Cáceres A., Chavez, C., Bullón, J. *“Un Rápido Procedimiento para la Acetilación de Ligninas Asistida por Microondas (Fast Microwave-Assisted Lignin Acetilation),* 8th Venezuelan Chemistry Congress, Caracas, June 24-28, 2007.

174. Piña, N., Ysambertt, F., Infante, M., Bravo, B., Chávez, G., Berrío, N., Cáceres, A., Bullón, J., Rojas\*, O.J., Argyropoulos, D.S., Gaspar, A.R., Marquez, N., *“Modificación Estructural de Ligninas Asistida por Microondas y Evaluación de su Carácter Anfifilico (Microwave-Assisted Structural Modification of Lignins & Evaluation of their Amphiphilic Properties)*, 8th Venezuelan Chemistry Congress, Caracas, June 24-28, 2007.

173. Lucian A. Lucia,\* Dimitris S. Argyropoulos, Armindo Gaspar, Lambrini Adamapoulos “*A Review of Biomass as a New Feedostock for the Material & Energy Needs of the 21st Century”*. Italian Meeting on Lignin Chemistry, *Italic 4,* University of Rome, Tor Vergata University, pp. 13-19, May 8-10, 2007.

172. Ilari Filpponen\*, Xinqwu Wang, Lucian A. Lucia, Dimitris S. Argyropoulos, *“Effect of reaction conditions on the formation and thermal behavior of cellulose nanocrystals*” - 233rd ACS National Meeting, Chicago, IL, March 25-29, 2007, , Paper #1058041.

171. Armindo R. Gaspar, I. Sofia Contreras\*, Anderson Guerra, Lucian A. Lucia, and Dimitris S. Argyropoulos

 *“Association Phenomena of Lignin Isolated from Wood Investigated by Light Scattering*” - 233rd ACS National Meeting, Chicago, IL, March 25-29, 2007, Paper #106384.

170. Xavier Turon, Orlando J. Rojas, Junlong Song, Kelley L Spence\*, Dimitris S. Argyropoulos, Randall Deinhammer., *“Model films of cellulose to monitor enzyme activity* ” - 233rd ACS National Meeting, Chicago, IL, March 25-29, 2007, Paper #1062894.

169. L Jooyoun Kim, Gerardo A. Montero\*, Xingwu Wang, Dimitris S. Argyropoulos, Jan Genzer, Juan P. Hinestroza, Orlando J. Rojas, “*Cellulose-Loaded Polystyrene Composites: Effect of Sorbitan Monostearate and Production of Nanofibers and Nanostructures for New Generation Multifunctional Materials”* - 233rd ACS National Meeting, Chicago, IL, March 25-29, 2007, Paper #1063072

**2006**

168. Lucia, L. A\*., Filpponen, I., Guerra, A., Ban, W., Argyropoulos, D., S. ”*Kinetic & Molecular Features of Green Liquor –Modified Versus Conventional Krafty Pulping*” 3rd International Symposium on Emerging Technologies of Pulping and Papermaking, Guangzhou, China, pp. 18-24, November 8-10, 2006

167. Liu\* , Y, Zhan H., Jiachuan, C., Argyropoulos, D. S., Fu, Q., “*Lignin Structural Analysis of the Triploid of Chinese Aspen”* 3rd International Symposium on Emerging Technologies of Pulping and Papermaking, Guangzhou, China, pp. 108-111, November 8-10, 2006

166. Ysambertt\*, F. Piña, N., Infante, M., Bravo, B., Chávez, G., Berrío, N., Cáceres, A., Bullón, J., Rojas, O. J., Argyropoulos, D. S., Gaspar, A. R. , Márquez, N., ”*Structural Modification of Lignins and their Potential as Surfactants*” Iberoamerican Congress on Pulp & Paper Research, Sandiago- Chile Oct 23-27, 2006.

165. Song, J., Rojas\*, O. J., Hubbe, M., Wang Wu, Argyropoulos, D. S., Wang, X., ”*Amphoteric Polymers in Papermaking”* Iberoamerican Congress on Pulp & Paper Research, Sandiago Chile Oct 23-27, 2006.

164. Saladino, R., Caponi, M. C., Argyropoulos, D. S., Crestini, C., "*Heterogeneous Methyltrioxo Rhenium (MTO)/H2O2 Systems for the Oxidation of Lignin & Model Compounds*” 9th European Workshop for Lignocellulosics & Pulp, Vienna Austria August 27th -31st , pp. 72-75, 2006

163. Rojas\*, O. J., Bullón, J., Ysambertt, F., Forgiarini, A., Argyropoulos, D. S., Gaspar A., R., ”*Phase Behavior of Lignins and Formulation of Oil in Water Emulsions*” 9th European Workshop for Lignocellulosics & Pulp, Vienna Austria August 27th -31st , pp. 471-475, 2006

162. Filpponen, I., Guerra, A., Hai, A. A., Lucia, L. A\*., Argyropoulos, D., S. ”*Toward Understanding the Efficacy of Green Liquor Impregnation ”* 9th European Workshop for Lignocellulosics & Pulp, Vienna Austria , August 27th -31st , pp 254-257, 2006

161. Argyropoulos\*, D., S., Li, H., Gaspar, A\*., Lucia, L., A., ”*Oxygen and Carbon Centered Radical Species Quantified by 31P NMR”* 9th European Workshop for Lignocellulosics & Pulp, Vienna Austria , August 27th -31st , pp 5-8, 2006.

160. Gaspar\* A., R., Saquing, C., D., Soriano, N., U., Jr., Lucia, L. A., Argyropoulos, D. S., ”Lignin Oxidation & Fragmentation in Supercritical Fluids and Expanded Liquids” 9th European Workshop for Lignocellulosics & Pulp, Vienna Austria , August 27th -31st , pp 262-265, 2006.

159. Anderson Guerra, Ilari Filpponen, Lucian Lucia, Dimitris S. Argyropoulos\* ”Different Wood Scpecies Offer Different Yields, Lignin Structures and Molecular Weights when Isolated with the Same Method” 9th ,European Workshop for Lignocellulosics & Pulp, Vienna Austria , August 27th -31st , pp. 274-277, 2006.

158. Ohra-aho,\*, T., Argyropoulos, D. S., Evtuguin, D. Tamminen, “Characterization of Lignin in Spruce TMP, Eucalyptus Chips and Kraft Pulp by Analytical Pyrolysis-GC/MS” 9th European Workshop for Lignocellulosics & Pulp, Vienna Austria , August 27th -31st 2006.

157. Ysambertt,\* L. F. , Rojas, O. J., Argyropoulos, D. S., Bullón, J. “Acetylated Kraft Lignin Affinity Changes in Water-Solvent Systems ” Iberoamerican Congress on Pulp & Paper Research, Sandiago- Chile Oct 23-27, 2006

156. Song, J., Gaspar, A., Arsenio, V., Bullón, J., Rojas, O. J., Argyropoulos, D. S., Ysambertt\*, F., “Black Liqour Lignin Separation Using Ultrafiltration Membranes” Iberoamerican Congress on Pulp & Paper Research, Sandiago- Chile Oct 23-27, 2006.

155. Tarja, Tamminen\* , Hanna Maenpaa, Erja Kentaa, Bo Hortling, Taina Ohra-aho, Dmtry Evtuguin, Dimitris Argyropoulos, and Anderson Guerra, “Integrated Sample Analyses/KCL Data”, Cost E41 on “Analytical Tools with Applications to Wood and Pulping Chemistry” Grenoble France April 12th -13th 2006.

154. Argyropoulos,\*, D. S., Guerra, A., Xavier, A., Baumberger, S., Evtuguin, “Yield, Functional Groups & Molecular Weights, for Cost E41 Lignins”, Cost E41 on “Analytical Tools with Applications to Wood and Pulping Chemistry” Grenoble France April 12th -13th 2006.

153. Carmen-Michaela Popescu, Mihai Brebu, Maria Christin Popescu, Storleiu, A., Gh. Singurel, Cornelia Vasile\*, D. S. Argyropoulos, S. Wilfor, , T. “Spectral & Thermal Characterization of the Integrated Cost E41 Samples” COST Action E41 “Analytical Tools with Applications to Wood and Pulping Chemistry” Grenoble France April 12th -13th 2006.

152. Saquing\*, C.D., Soriano Jr., N.U., Gaspar, A.R., Lucia, L.A., Rojas, O.J., Argyropoulos, D.S. “Oxidation of lignin in supercritical fluids and expanded liquids” 233rd American Chemical Society Meeting & Exposition, Atlanta, Georgia,  March 26 - 30, 2006.

151. Argyropoulos, D.S., Li\*, H., Gaspar, A.R., Smith, K., Lucia, L.A., Rojas , O.J. “Quantitative 31P NMR Detection of Oxygen-centered and Carbon-centered Radical Species, ” 233rd, American Chemical Society Meeting & Exposition, Atlanta, Georgia, March 26 - 30, 2006.

150. Adamopoulos\*, L., Hampikian, G., Heitmann, J., Lucia,L.A. Argyropoulos, D.S. “Stereoselectivity, Kinetics and Chain Length Effects Governing the Formation and Antimicrobial Activity of Sugar Esters of Fatty Acids,” **CELL Graduate Student Award Lecture,** American Chemical Society Meeting & Exposition, Atlanta, Georgia, March 26 - 30, 2006.

149. Wang\*, X., Devineni, N., Clark, R., Rojas, O., Lucia, L., Argyropoulos, D.S, “Formation and Study of Cellulose Nanocrystals from Hydrochloric Acid Hydrolysis,” 233rd, American Chemical Society Meeting & Exposition, Atlanta, Georgia, March 26 - 30, 2006.

148. Filpponen \*,I., Hai, AKM, Lucia, L.A., Argyropoulos, D.S. ”Understanding the efficacy of green liquor pretreatment by using etherified lignin model compounds,” 233rd, American Chemical Society Meeting & Exposition, Atlanta, Georgia, March 26 - 30, 2006.

147. Fu\*, Q., Argyropoulos, D.S., Lucia, L. Tilotta, D. “Pyrolysis of Copper-Chromium-Arsenic Treated Wood,” 233rd, American Chemical Society Meeting & Exposition, Atlanta, Georgia, March 26 - 30, 2006.

146. Guerra\*, A., Xavier, A., Lucia, L., Argyropoulos, D. S. “The Effects of Milling Conditions on the Structure of Enzymatic Mild Acidolysis Lignin,” 233rd, American Chemical Society Meeting & Exposition, Atlanta, Georgia, March 26 - 30, 2006.

145. Chong\*, C. W., Rojas, O., Argyropoulos, D.S. “Degradation of Nano-Scale Films of Cellulose and Lignin by Using Piezoelectric Resonators,” 233rd, American Chemical Society Meeting & Exposition, Atlanta, Georgia, March 26 - 30, 2006.

144. Hai\*, A. K. M., Filpponen, I., Guerra, A., Xavier, A., Lucia, L.A., Argyropoulos, D.S. “A Kinetic Study of the Formation and Degradation of Inorganic Polysulfide Species: Quantitative Analysis by 1H-NMR Spectroscopy,” 233rd, American Chemical Society Meeting & Exposition, Atlanta, Georgia, March 26 - 30, 2006.

 143. Wang\*, Y., Hubbe, , M. A., Sezaki, T., Wang, X., Rojas, O. J., Argyropoulos, DS. S., “The Role of Polyampholyte Charge Density on its Interactions with Cellulose” , International Paper and Coating Chemistry Symposium, KTH, Stockholm, Sweden, June 7-9, 2006.

**2005**

142. Jurasek\*, L. and Argyropoulos, D. S., “Reactivity of Lignin Models with Oxygen-Centered Radicals: Computation of Proton and Electron Affinity and O-H Bond Dissociation Energy”**,** 1st Applied Molecular Modelling Pulp & Paper Symposium, McGill University, Montreal , Canada , pp. 69-76, August 24-26 (2005) **Invited Lecture**.

141. Jurasek\*, L. and Argyropoulos, D. S., “Modeling of the Effect of Lignin Crosslinking on its Reactivity”**,** 1st Applied Molecular Modelling Pulp & Paper Symposium,Montreal , Canada ,pp 127-132, August 24-26 (2005), **Invited Lecture.**

140. Rojas\*, O., J., Hinestroza, J. P., Genzer, J., Argyropoulos D. S., “Cellulose Based Materials in Biocomposite Manufacture” 14 Intl. Materials Research Congress, Cancun, Mexico, August 21-25 (2005)

139. Saladino\*, R., Pagliaccia, T., Fiani, C., Neri, V., Botta, G., Argyropoulos, D. S., “Cellulose Watse Valorisation by Novel Heterogeneous MethylRhenium Trioxide Catalysts” 3rd Italian Meeting on Lignin Chemistry, June 23-24, Universita Degli Study, L’Auila, pp. 12-15, 2005.

138. Sala\*, M. Strlič, M., Kolar, J., Argyropoulos, D. S., “ A Study of Chemiluminescence During the Oxidation of Milled Wood Lignin” 3rd Italian Meeting on Lignin Chemistry, June 23-24, Universita Degli Study, L’Auila, pp. 122-125, 2005.

137. Kelley\*, S, O.J. Rojas, D.S. Argyropoulos “Development of Cellulose Thin Films for Studies in Surface Chemistry ”, 14th Annual NC State Undergraduate Research Symposium, North Carolina State University, April 25, 2005; **Outstanding Project** , Sigma Xi citation at University Honors Convocation 2005.

136. Rojas\*, O. J., Song, J., Bullon, J., Argyropoulos, D. S., “Lignin Separation from Kraft Black Liquors by Tangential Ultrafiltration” 3rd Italian Meeting on Lignin Chemistry, June 23-24, Universita Degli Study, L’Auila, pp. 53-61, 2005.

135. Ban, W., Song, J., Argyropoulos, D. S., Lucian, L.\* **“**Improving the Functionality of Starch Films with Biopolymers” 3rd Italian Meeting on Lignin Chemistry, June 23-24, Universita Degli Study, L’Auila, pp. 16-19, 2005.

134. Argyropoulos, D. S.\*, Lucia A. L. “ A Detailed Examination of Lignin During Pulping & Bleaching” , 2005, AIChE Spring National Meeting, Hyatt Regency, Atlanta, GA, April 10-14.

133. Lucia A. L.\* W.Ban, Argyropoulos, D. S., “ Chemical Extraction of Wood Hemicelluloses; An Invaluable New Proposition for the Pulp & Paper Industry” , 2005, AIChE Spring National Meeting, Hyatt Regency, Atlanta, GA, April 10-14.

132. Lucia A. L.\* W.Ban, Argyropoulos, D. S., “ A Quantititaive Comparison of the Kinetic Features of Green Liquor- Modified, versus Conventional Kraft Pulping” , 2005, AIChE Spring National Meeting, Hyatt Regency, Atlanta, GA, April 10-14.

131. Argyropoulos, D. S., and Gaspar, A\*, “Oxidation of Lignin in Supercritical Carbon Dioxide” 229h, American Chemical Society National Meeting, San Diego, CA., March 13-17, 2005, San Diego, CA

130. Argyropoulos, D. S.,\* “Supercritical Chemical Technologies for Biomass Conversion” 7th, Forum of the International Lignin Institiute, April 26-28, pp. 95-99, 2005, Barcelona, Spain.

129. Gaspar, A., Koda. K, Rojas, O., Lucian, L. and Argyropoulos\* D. S. , “Oxidative Chemistry of Lignin in Supercritical Carbon Dioxide” 13th, International Symposium on Wood Fiber & Pulping Chemistry , Oral Vol 2, pp 553-560, May 16-19, 2005, Auckland New Zealand, 2005.

128. Argyropoulos\*, D. S. ,, Hou, Y., Ganesaratnam, R., Harpp, D., N., and K. Koda, “Quantitative 1H NMR of Polysulfide Solutions” 13th, International Symposium on Wood Fiber & Pulping Chemistry , Oral Vol 2, pp 133-140, May 16-19, 2005, Auckland New Zealand, 2005.

127. Koda, K., Gaaspar, A., Liu, Y. Argyropoulos, D. S. , “Molecular Weight - Functional Group Relations in Softwood Residual Kraft Lignins” 13th, International Symposium on Wood Fiber & Pulping Chemistry , Oral Vol 2, pp 473-480, May 16-19, 2005, Auckland New Zealand, 2005.

126. Jeong, C. W., Maciel, A. M., Pawlak, J.J., Heitmann, J., Argyropoulos, D. S., and Rojas\*, O., “Following Cellulase Activity by the Quartz Crystal Microbalance Technique ” 13th, International Symposium on Wood Fiber & Pulping Chemistry , Oral Vol 2, pp 495-502, May 16-19, 2005, Auckland New Zealand, 2005.

125. Rojas\*, O., Bullon, J.,  Argyropoulos, D. S. **‘**Lignins as Stabilizers of Oil-in-Water Emulsions in the Framework of the Surfactant Affinity Difference Approach” 13th, International Symposium on Wood Fiber & Pulping Chemistry , Poster Vol 3, pp 329-336, May 16-19, 2005, Auckland New Zealand, 2005.

**2004**

124. Compere, A. L.; Gardner, W. L.; Griffith, W. L.; White, T. L.; Jameel, H.; Argyropoulos, D. S.; Fricke, A. L. Microwave Pretreatment to Decrease Pulping Energy and Chemicals. TAPPI Paper Summit--Spring Technical and International Environmental Conference, Atlanta, GA, United States, May 3-5, 2004 (2004), 299-313. CODEN: 69FWL3 CAN 142:178968 AN 2004:881694 CAPLUS

123. Rojas\*, O., Hubbe, M., Argyropoulos, “The Paradox in Papermaking”, Iberoamerican Congress on Pulp & Paper Research, Madrid-Cordoba, Nov. 10-12, 2004

122. Argyropoulos\*, D. S., and Rojas, O. “Lignin Structural Insights During Pulping & Bleaching”, Iberoamerican Congress on Pulp & Paper Research, Madrid-Cordoba, Nov. 10-12, 2004

121. Liu Y\*., Zhan H., Chen J., Argyropoulos, D. S. TCF Bleaching of Triploid of Chinese Aspen Pulp2nd ISTPPBFP International Symposium on Technologies of Pulping, Papermaking and Biotechnology on Fiber Plants, October 12-14; 2004 Nanjing, China .

120. L. J. Eason\* II, R. A. Ernest\*, C. M. Foess\*, R. A. Venditti, D. S. Argyropoulos “Conversion of Deinking Sludge to Fermentable Glucose”, 13th Annual NC State Undergraduate Research Symposium, North Carolina State University, April 22, 2004; **Outstanding Project** , Sigma Xi citation at University Honors Convocation 2004.

**2003**

119. Ermest\*, R. A., Venditti, R. A., Gilbert , R.D. “Characterization of Paper Recycling Deinking Sludge for Potential Utilization in the Production of Ethanol” NSF Undegraduate Experience Student Conference, July (2003).

118. Argyropoulos\*, D.S. “Can Oxygen Delignification be Activated and the Pulp Protected?” Virginia Carolina Tappi Meeting , Nov. 19 (2003).

118. Argyropoulos\*, D.S. “Studies on the Mechanism on the Lacasse Mediator System; Where Do We Go From Here?” **Invited Lecture** , Cost 23 Action , Biotechnology in the Pulp and Paper Industry, Tuscia University, Vierbo, Italy, 10-12 Nov. (2003).

117. Akim, L., Suchi, M., and Argyropoulos\*, D. S., “Nitrogen Centered Activators of Oxygen Delignification.” Tappi Fall Conference, Chicago, Paper no. 48-1 Oct. 26-30 (2003).

116. Adamopoulos, L. , Tomovic, M., and Argyropoulos\*, D. S., “The Use of Borax in Peroxide Reinforced Oxygen Delignification of Softwood Kraft Pulp.” Tappi Fall Conference, Chicago, Ill. Paper no. 48-3 Oct. 26-30 (2003).

115. Argyropoulos\*, D. S., and Smith “Quantitative 31P NMR Detection of Radical Species; A New Tool for the Lignin Chemist.” 12th International Symposium on Wood and Pulping Chemistry, Oral Presentations volume I, pp. 167-170, June 9-12, (2003).

114. Wu, Shubin, Argyropoulos\*, D. S., “An Improved Method for Isolating Lignin in High Yield and Purity.” 12thInternational Symposium on Wood and Pulping Chemistry, Poster presentations volume III, pp. 31-34, June 9-12, (2003).

113. Jurasek, L. ,Argyropoulos\*, D. S. “Computations of Proton and Electron Affinities of O-H Bond Dissociation Energies.” 12thInternational Symposium on Wood and Pulping Chemistry, Poster presentations volume II, pp. 35-38, June 9-12, (2003).

112. Claudia Crestini, Lubo Jurasek, Dimitris, S. Argyropoulos, the Mechanism of the Laccase-Mediator System in the Oxidation of Lignin.” Italian Meeting on Lignin Chemistry, *Italic 2,* University of Milan,February 20-21, (2003).

**2002**

111. Wu, Shubin, Argyropoulos, D. S., “An Improved Method for Isolating Lignin in High Yield and Purity.” 2nd International Symp. Emerging Technologies of Pulping and Papermaking, Guangzhou, PR., China, Oct. 9-11, pp. 99-109, (2002).

110. Argyropoulos\* D. S. “New Lignin Insights into Pulping and Bleaching.” Keynote Lecture, 2nd International Symp. Emerging Technologies of Pulping and Papermaking, Guangzhou, PR., China, Oct. 9-11, 2002.

109. Argyropoulos\*, D. S., Crestini C., Smith , K. “Toward an Understanding of the Role of Hydroxybenzotriazole in the Laccase Oxidation of Residual Kraft Lignin.” 8th International Symposium on Activation of Dioxygen & Homogeneous Catalytic Oxidation, Emory University, Atlanta, Georgia, USA, June 2-7, (2002).

108. Smith\* , K., Argyropoulos, D. S., “Quantitative Detection of Radical Species in Pulp Bleaching Operations.” International Pulp Bleaching Conference, Portland Oregon May 19-23, (2002). pp. 97-104.

107. Crestini C., Argyropoulos\*, D. S., Smith , K. and Viikari, L. “Mechanism of Lignin and Model Compound Oxidation by the Laccase-Mediator System.” 223rd ACS National Meeting, Orlando, Florida, April 7-11, (2002), Cellulose Paper and Textile Division, Paper No. 16.

106. Smith\*, K., Argyropoulos, D. S., “Quantitative Detection of Radical Species Involved in Bleaching.” 88th Paptac Annual Meeting, Jan 29-31, Montreal, Quebec, (2002).

105. Argyropoulos\*, D. S., Akim, L. and Ahvazi, B. “Salient Reactions in Lignin During Pulping and Bleaching.” 88th Paptac Annual Meeting, Montreal, Quebec, Jan 29-31, (2002), pp. A-165-172.

**2001**

104. Argyropoulos, D. S\*. “Recent Advances in Wood Chemistry.” Keynote Lecture, Seventh Brazilian Symposium on the Chemistry of Lignins and Other Wood Components, Uro Minas Hotel, Bello Horizonte, PR. Brazil, Sept. 1- 4 (2001), Oral Presentations Volume, pp. 43-51.

103. Argyropoulos\*, D. S., Jurasek, L., Krištofová, L., Xia, Z., Sun, Y., Paluš, P., “On the Abundance and Reactivity of Dibenzodioxocins in Softwood Lignin.” 11thInternational Symposium on Wood and Pulping Chemistry, Oral presentations volume I, pp. 175-179, June 11-14, (2001), Nice, France.

102. Jurasek**\***, L., Kristofova, L., Sun, Y., Argyropoulos, D. S., “Understanding the Oxidative Degradation of Condensed Structures in Kraft lignin.” 11thInternational Symposium on Wood and Pulping Chemistry, Poster presentations volume III, pp. 483-486, June 11-14, (2001), Nice, France.

101. Jääskeläinen**\***, A. S., Sun, Y., Argyropoulos, D. S., Tamminen, T., Hortling, B., “The Effect of Isolation Method on the Chemical Structure of Residual Lignin.” 11thInternational Symposium on Wood and Pulping Chemistry, Oral presentations volume I, pp. 239-243, June 11-14, (2001), Nice, France.

100. Crestini\* C., Argyropoulos, D. S., and Viikari, L. “Oxidation of Lignin by the Laccase-Mediator System: The Role of 1-Hydroxybenzotriazole.” 11thInternational Symposium on Wood and Pulping Chemistry, Oral presentations volume I, pp.317-320 , June 11-14, (2001), Nice, France.

99. Argyropoulos, D. S., Sun\*, Y., Palus, E. “Isolation of Residual Kraft Lignin in High Yield and Purity Using a Novel Enzymatic-Acid Hydrolysis Method.” 11th International Symposium on Wood and Pulping Chemistry, Poster presentations volume III, pp. 617-620, June 11-14, (2001), Nice, France.

98. Tohmura\*, S., and Argyropoulos, D. S. “Determination of Arylglycerol-β-aryl Ethers and Other Linkages in Residual Kraft and Milled Wood Lignins.” 11thInternational Symposium on Wood and Pulping Chemistry, Poster presentations volume II, pp.1-5 , June 11-14, (2001), Nice, France.

97. Beaton\*, C., R., Argyropoulos, D., S., “Photo-Protection Mechanisms of UV Stabilizers on Milled Wood Lignin.” Annual Paptac Meeting, Montreal, Que., Jan 30- Feb 2, 2001.

**2000**

96. Argyropoulos\*, D. S., Akim, L. and Ahvazi, B. “Salient Reactions in Lignin During Pulping and Bleaching,” Tappi Pulping Conference, Nov. 6-8, Boston, Mass, 2000.

95. Suchy\*, M., and Argyropoulos, D. S., “Catalysis and Activation of Oxygen and Peroxide Delignification of Chemical Pulps: A Review.” Tappi Pulping Conference, Nov. 6-8, Boston, Mass, 2000.

94. Akim\*, L., Argyropoulos, D. S., Jouanin, L., Leple, J-C., Pilate, G., Pollet, B., and Lapierre, C., 31P NMR Spectroscopy of Lignins from Transgenic Poplars.” Tappi Pulping Conference, Nov. 6-8, Boston, Mass, 2000.

93. Argyropoulos, D. S., Sun, Y., Palus, E., “A Novel Method for Isolating Residual Kraft Lignin.” 6th, European Workshop on Lignocellulosics and Pulp, 23-27, Université Bordeaux I, Bordeaux, France, Sept. 3-6, 2000.

92. Tohmura\*, S. and Argyropoulos, D. S., “Determination of Aryl Glycerol-ß-Aryl Ether and Other Linkages in Softwood and Residual Kraft Lignins.” 6th European Workshop on Lignocellulosics and Pulp, 57-62, Université Bordeaux I, Bordeaux, France, Sept. 3-6, 2000.

91. Jääskeläinen\*, A., S., and Argyropoulos, D. S. “An Improved Method for the Quantitative Lignin Analysis Using Pyrolysis-Gas Chromatography.” 6th European Workshop on Lignocellulosics and Pulp, 371-374, Université Bordeaux I, Bordeaux, France, Sept. 3-6, 2000.

90. Beaton\*, C., R., Argyropoulos, D., S., “Photo-Protection Mechanisms of UV Stabilizers on Milled Wood Lignin.” 6th European Workshop on Lignocellulosics and Pulp, 191-196, Université Bordeaux I, Bordeaux, France, Sept. 3-6, 2000.

89. De Souza\*, I., J., , Bouchard, J., Methot, M., Berry, R.,M., and Argyropoulos, D. S., “Changes in Cellulose Crystalinity During Oxygen Delignification.” International Pulping Conference,Poster Presentations Volume 41-45, Halifax, Nova Scotia, Canada, 2000.

88. Colodette\*, J.L., Gomide, J., L., Jaaskelainen, T., Argyropoulos, D. S., “Influence of Pulping Conditions on Hardwood Pulp Yield, Quality and Bleachability.” International Pulping Conference, Oral Presentations Volume 41-48, Halifax, Nova Scotia, Canada, (2000).

87. Akim, L., Colodette, J.L. and Argyropoulos\*, D. S., “Factors Limiting Oxygen Delignification of Kraft Pulp.” International Pulping Conference, Oral Presentations Volume pp.103-113, Halifax, Nova Scotia, Canada, 2000.

86. Argyropoulos\*, D. S., “Understanding Lignin Oxidation and Condensation Reactions Using NMR.” 83rd Canadian Society of Chemistry Conference, Calgary, Alberta, May 27-31 2000. Section, MA1, Symposium on Natural Macromolecules.

85. Tohmura\*, S. and Argyropoulos, D. S., “Determination of Beta-Aryl Ether Linkages in Softwood and Residual Kraft Lignins.” 50th Annual Meeting of the Japan Wood Research Society, Kyoto, Japan, p.380, 2000.

84. Jurasek\* , L., and Argyropoulos, D. S., “Molecular Mechanisms of the Formation of *Zulauf* and *Zutropf* DHP Lignins are Applicable to Native Lignin Biosynthesis.” American Chemical Society, Cellulose, Paper and Textile Division, San Fransisco, Ca, Paper. No. 103, March 26-30 2000.

83. Crestini\*, C., and Argyropoulos, D. S., “On the Role of 1-Hydroxybenzotriazole as Mediator in Laccase Oxidation of Residual Kraft Lignin.” American Chemical Society, Cellulose, Paper and Textile Division, San Fransisco, Ca, Paper. No. 150, March 26-30 2000.

82. Jurasek\*, L., and Argyropoulos, D., S., “Detailed Study of the Alkaline Oxidative Degradation of A Residual Kraft Lignin Model Compound.” American Chemical Society, Cellulose, Paper and Textile Division, San Fransisco, Ca, Paper. No.75, March 26-30 2000.

81. Suchy\*, M., and Argyropoulos, D. S., “Catalysis and Activation of Oxygen and Peroxide Delignification of Chemical Pulps: A Review.” American Chemical Society, Cellulose, Paper and Textile Division, San Fransisco, Ca, Paper. No. 117, March 26-30 2000.

80. Moore\*, D., and Argyropoulos, D. S. “A Pilot Plant Trial Using *in Situ* Peroxyborate for the Brightness Retention of TMP.” 86th Annual Meeting, PAPTAC, Montreal, Canada, 2000.

79. Colodette\*, J., Gomide, J. L., Gleysis, K., Kogan, J., Jaskelainen, A-S., and Argyropoulos, D. S. , “Yield and Bleachability of Hardwood and Softwood Kraft/Polysulfide Pulps.” 86th Annual Meeting, PAPTAC, Montreal, Canada, Vol. C pp. C143-C147, 2000.

78. Argyropoulos\*, D. S., Ahvazi, B., Pageau, G,and Liu, Y., “Lignin Condensation Reactions During Pulping and Oxygen Delignification.” 6th Brazilian Symposium on the Chemistry of Lignins and Other Wood Components, Vol. VII, pp.159-166, (2001), October 25-28, 1999, Clube dos 500 Hotel, Guaratinguetá, SP, Brazil.

**1999**

77. Ahvazi, B., Crestini, C., and Argyropoulos\*, D. S., “Development and Applications of 19F NMR for the Quantitative Detection and Classification of Carbonyl Groups in Lignins.” 10th International Conference, Instrumental Methods of Analysis, Modern Trends and Applications, Vol. I, pp. 103-109, 19-22, Sept. (1999), Halkidiki, Greece.

76. Sun\*, Y.J., Fenster, M., Yu, A., Berry, R. M., and Argyropoulos, D. S., “The Effect of Metal Ions on the Reaction of Hydrogen Peroxide with Kraft Lignin Model Compounds.” 10th International Symposium on Wood and Pulping Chemistry, Oral presentations volume I, pp. 242-247, June 7-10, (1999), Yokohama, Japan.

75. Argyropoulos\*, D. S., Ahvazi, B., Pageau, G,and Liu, Y., “Understanding the Role and Fate of Lignins Condensed Structures, During Pulping and Oxygen Delignification.” 10th International Symposium on Wood and Pulping Chemistry, Oral presentations volume I, pp. 340-345, June 7-10, (1999), Yokohama, Japan.

74. Ahvazi, B., Crestini, C., and Argyropoulos\*, D. S., “19 F Nuclear Magnetic Resonance Spectroscopy NMR) for the Quantitative Detection and Classification of Carbonyl Groups in Lignins.” 10th International Symposium on Wood and Pulping Chemistry, Oral presentations volume I, pp. 34-39, June 7-10, (1999), Yokohama, Japan.

73. Billa\*, E., Argyropoulos, D. S., Koukios, E., “Chemometric Correlation of 31P NMR with Fluorescence Spectroscopy Data for Pulps and their Residual Lignins.” 10th International Symposium on Wood and Pulping Chemistry, Poster presentations volume II, pp. 228-231, June 7-10, (1999), Yokohama, Japan.

72. Argyropoulos\* , D. S., and Zhang, L., “On the Semiquantitative Determination of Quinonoid Structures in Soluble Lignins by 31P NMR.” 10th International Symposium on Wood and Pulping Chemistry, Poster presentations volume II, pp. 172-177, June 7-10, (1999), Yokohama, Japan.

71. Ahvazi\*, B., and Argyropoulos, D. S., “Proton Spin-Lattice relaxation Time Measurements of Solid Wood and its Constituents as a Function of pH.” 10th International Symposium on Wood and Pulping Chemistry, Poster presentations volume II, pp. 142-147, June 7-10, (1999), Yokohama, Japan.

**1998**

70. Argyropoulos\*, D. S., and Liu, Y., “The Role and Fate of Lignin’s Condensed Structures During Oxygen Delignification.” Tappi Pulping Conference, Montreal, Canada Oct. 25-29, Vol. 3, pp. 1527-1540, 1998.

69. Suchy\*, M., and Argyropoulos. D. S. “Activation of Alkaline Peroxide Delignification Using aVanadium Peroxo Complex.” Tappi Pulping Conference, Montreal, Canada Oct. 25-29, Vol. 3, pp. 1277-1290, 1998.

68. Ahvazi, B., Pageau, G., and Argyropoulos\*, D. S., “On the Formation of Diphenylmethane Structures in Lignin Under Kraft, Soda and EMCC Pulping Conditions.” Fifth European Workshop on Lignocellulosics and Pulp, Aveiro, Portugal, pp. 495-499, Aug.30- Sept. 2 1998.

67. Crestini\*, C., and Argyropoulos, D. S., “Aliphatic Moieties Induced on Lignins when Exposed to Oxygen, Peroxide, and Enzymatic Oxidations.” Fifth European Workshop on Lignocellulosics and Pulp, Aveiro, Portugal, pp. 273-276, Aug.30- Sept. 2 1998.

66. Moore\*, D., and Argyropoulos, D. S., “A Sensitive Analytical Protocol for the Detection of Active Oxygen Species Present on Solid Lignocellulosic Matrices.” Fifth European Workshop on Lignocellulosics and Pulp, Aveiro, Portugal, pp. 237-240, Aug.30- Sept. 2 1998.

65. Billa\*, E., Argyropoulos, D. S., and Koukios, E., G., “Correlating 31P NMR and Fluorescence Data of Residual Kraft Lignins by Multivariate Chemomentric Analysis.” Fifth European Workshop on Lignocellulosics and Pulp. Aveiro, Portugal, pp. 183-186, Aug.30- Sept. 2 1998.

64. Colodette\*, J. L., Gomide, J. L. Robles, Y. A. M., Almeida, J. M.,de Brito**,** A. C. H.,Mehlman**,** S. K., Argyropoulos, D. S. “Effect of the Pulping Process on Pulp Bleachability With ECF, Z-ECF and TCF Bleaching Sequences.” International Pulp Bleaching Conference, Vol. 1, pp.61-70, June 1998.

63. Liu, Z. and Argyropoulos, D. S\*. “Maintaining the Brightness of Mechanical Pulp*s via* Solid-State Perborate Bleaching.” *84th Annual Meeting of the Technical Section of the Canadian Pulp and Paper Association*, B235-B240, 1998.

62. J. Young\* , Y. Sun and D. S. Argyropoulos “Functional Group Changes in Residual and Solubilized Lignins Through Various Stages of a Northern Bleached Softwood ECF Fibreline.“ *84th Annual Meeting of the Technical Section of the Canadian Pulp and Paper Association*, 1998.

**1997**

61. Argyropoulos, D. S\*. “Heteronuclear NMR Analysis of Lignocellulosic Materials.” Fifth Chemical Congress of North America, Cancun, Mexico, Nov. 11-15, 1997.

60. Asgari, F. and D. S. Argyropoulos\*, “Fundamentals of Oxygen Delignification, Part II, Kinetics of Functional Group Formation/Elimination in Residual Kraft Lignin.” Tappi Pulping Conference, San Franscisco, CA. Oct. 18-23, Vol. 2 pp. 951-961, 1997.

59. Argyropoulos, D. S\*. “Fundamental NMR Studies of Lignins: Emerging Answers to Issues of Concern in Relation to Pulping, TCF Bleaching and Yellowing.” Plenary Lecture, Fifth Brazilian Symposium on the Chemistry of Lignins and Other Wood Components/Workshop of the International Energy Agency on Biotechnology Applied to Lignocellulosic Materials, Burbon Hotel, Curitiba, PR. Brazil, Aug. 31- Sept. 4 1997.

58. Jiang, J\*., Argyropoulos, D. S., “Isolation and Characterization of Residual Lignin in Kraft Pulp.” 9th International Symposium on Wood and Pulping Chemistry, Oral presentations volume, pp. J2-1to J2-6, June 9-12, (1997). Montreal, Canada.

57. Argyropoulos, D. S. and Sun, Y\*., “Photochemically Induced Degradation, Condensation and Rearrangement Reactions in Lignin Model Compounds and Milled Wood Lignin.” 9th International Symposium on Wood and Pulping Chemistry, Oral presentations volume, pp. K5-1toK5-6 June 9-12, (1997). Montreal, Canada.

56. Crestini, C\*., G. G. Sermani, and Argyropoulos, D. S.”The Biodegradation of Wheat Straw Lignins by the White-Rot Fungus *Lentinus Edodes*.” 9th International Symposium on Wood and Pulping Chemistry Posters volume pp. 16-1 to 16-4, June 9-12, (1997). Montreal, Canada.

55. Ahvazi, B\*, Argyropoulos, D. S. “Quantitative Detection of Carbonyl Groups in Native and Technical Lignins.” 9th International Symposium on Wood and Pulping Chemistry, Posters volume pp. 7-1 to 7-5, June 9-12, (1997). Montreal, Canada.

54. Crestini\*, C., Argyropoulos, D. S., “The Early Biodegradation Pathways of Residual Kraft Lignin Model Compounds with Laccase.” 9th International Symposium on Wood and Pulping Chemistry, Posters volume pp. 20-1 to 20-5, June 9-12, (1997). Montreal, Canada.

53. Billa, E\*., Argyropoulos, D. S. and Koukios, E., “Correlating Residual Kraft Lignins 31P NMR and Fluorescence Spectroscopy Data by Multivariant Chemometric Analysis.” Advances in Microscopy and NMR Spectroscopy of Lignocellulosic Materials, Pre-symposium Workshop to the 9th International Symposium on Wood and Pulping Chemistry, June 5-6, (1997).

52. Argyropoulos, D. S\*., “Quantitative Phosphorus and Fluorine NMR Spectroscopies for the Structural Elucidation of Lignin.” Advances in Microscopy and NMR Spectroscopy of Lignocellulosic Materials**, Invited Presentation,** Pre-symposium Workshop to the 9th International Symposium on Wood and Pulping Chemistry, June 5-6, (1997).

51. Liu, J., and Argyropoulos, D. S\*. “Bleaching out The Yellow While it Forms During Reversion with Solid-State Bleaching.” *CPPA Pacific and Western Branches Joint Technical Conference,* Whistler, BC, Session 3A, paper no. 2, May 14-17 1997*.*

50. Puping\*, P. Halevy, P., Argyropoulos, D. S. “Photoyellowing Inhibition of BCTMP Using Water Soluble UV Screens.” *83ndAnnual Meeting of the Technical Section of the Canadian Pulp and Paper Association*, Feb. 1997.

**1996**

49. Sun, Y., and Argyropoulos, D.S\*.“*Fundamentals of High Pressure and Low Pressure Oxygen-Peroxide (Eop) Delignification of Softwood and Hardwood Kraft Pulps*.” Book 1, pp. 457-463, Tappi Pulping Conference, Nashville, TN, 1996.

48. Billa, E\*., Argyropoulos, D. S., and Koukios, E., “*Multivariate Chemometrics Approach for the Fluorescence of Residual Kraft Lignins.*”Workshop on Bioproducts from Lignocellulosics-Progress in Developing Feasible Bio/Chemical Pathways,” Sounion, Greece, September, 25-27, 1996.

47. Crestini, C, and Argyropoulos, D. S\**.* “*Biodegradation of Kraft Lignin Model Compounds by Laccase from Trametes Versicolor.*”Invited presentation*,* Workshop on Bioproducts from Lignocellulosics-Progress in Developing Feasible Bio/Chemical Pathways, Sounion, Greece, September, 25-27, 1996.

46. Argyropoulos, D.S\*., “*Recent Advances on Lignin Characterization.”* **Invited Presentation,** Workshop on Bioproducts from Lignocellulosics-Progress in Developing Feasible Bio/Chemical Pathways, Sounion, Greece, September, 25-27, 1996.

45. Crestini, C\*. and Argyropoulos, D. S. “Structural Analysis of Wheat Straw Lignin by Quantitative 31P-NMR and 2D NMR Spectroscopy; The Occurrence of Ester Bonds and beta-O-4 Substructures.” Fourth European Workshop on Lignocellulosics and Pulp, on Advances in Characterization and Processing of Wood, Non-woody and Secondary Fibres, Stresa, Italy, Sept. 8-11, pp. 51-55, 1996.

44. Billa, E., Argyropoulos, D.S\*. and Koukios, E. “A Multivariate Chemometrics Approach for the Fluorescence of Residual Kraft Lignins.” Fourth European Workshop on Lignocellulosics and Pulp, on Advances in Characterization and Processing of Wood, Non-woody and Secondary Fibres, Stresa, Italy, Sept. 8-11, pp. 304- 308, 1996.

43. A. Spyros\*, D. S. Argyropoulos and R.H. Marchessault, “31P NMR, A New and Efficient Tool for Determining Molecular Weights and Studying Degradation of PHA’s.” International Symposium on Bacterial Polyhydroxyalkanoates 1996, Davos Switzerland, 18-23 August 1996.

42. Mazur\*, M., and Argyropoulos, D. S., “Relaxation Mechanisms of Phosphitylated Lignins.” 11th NMR Valtice 15-17, Slovakia, April 1996.

41. Bouchard, J\*., Maine, C., Argyropoulos, D. S. and Berry, R. M., “Kraft Pulp Bleaching Using *In-Situ* Dimethyldioxirane: Mechanism and Reactivity of the Oxidants.” *CPPA Pacific and Western Branches Joint Technical Conference,* Jasper, Alberta, May 15-18 1996*.*

40. Y. Sun, D. S. Argyropoulos\* “A Comparison of the Reactivity and Efficiency of Ozone, Chlorine Dioxide, Dimethyldioxirane and Hydrogen Peroxide with Residual Kraft Lignin.” *CPPA Pacific and Western Branches Joint Technical Conference,* Jasper, Alberta, May 15-18 1996*.*

39. Bouchard\*, J, Chen, J. and Argyropoulos, D. S. “Bleaching With Dimethyldioxirane: A Review of its Fundamentals.” Cellulose Paper and Textile Division Paper no. 220, *211nt American Chemical Society Meeting,* New Orleans LA, March 24-28 1996.

38. Ahvazi\*, B., Borbaruah, M., Argyropoulos, D. S. “19F NMR Spectroscopy for the Elucidation of Carbonyl-Groups in Lignins; Part I, Lignin Model Compounds.” *37th Experimental NMR Conference*, Asilomar, CA March 19-22, Paper WP140, p.292, 1996.

37. Ahvazi, B\*., Argyropoulos, D. S. “Quantitative Detection of Carbonyl Groups in Native and Technical lignins by 19F NMR Spectroscopy.” Cellulose Paper and Textile Division Paper no. 114, *211nt American Chemical Society Meeting,* New Orleans LA, March 24-28 1996.

36. Ahvazi, B\*., Borbaruah, M., Argyropoulos, D. S. “19F NMR Spectroscopy for the Elucidation of Carbonyl-Groups in Lignins; Part I, Lignin Model Compounds.” *82nd Annual Meeting of the Technical Section of the Canadian Pulp and Paper Association*, Feb. 1996.

35. Zhang, L\*. Argyropoulos, D. S. “Quantification of Quinonoid Structures in Soluble Lignins by Phosphorus NMR.” *82ndAnnual Meeting of the Technical Section of the Canadian Pulp and Paper Association*, Feb. 1996.

**1995**

34. Argyropoulos, D. S\*. “The Development of Condensed Structures in Lignin During Kraft Pulping.” International Chemical Congress of Pacific Basin Societies, Honolulu, Hawaii, Paper, O1E-183, Dec. 19, 1995.

33. Argyropoulos, D. S\*., Hortling, B., Poppius-Levlin, K., Sun, Y, Mazur, M., “MILOX Pulping, Lignin Characterization by 31P NMR Spectroscopy and Oxidative Degradation.” *8th International Symposium of Wood & Pulping Chemistry,* Helsinki, Finland, June 6-9, Vol. 1 495-502, 1995.

32. Y. Sun, D. S. Argyropoulos\* “A Comparison of the Reactivity and Efficiency of Ozone, Chlorine Dioxide, Dimethyldioxirane and Hydrogen Peroxide with Residual Kraft Lignin.” *8th International Symposium of Wood & Pulping Chemistry,* Helsinki, Finland, June 6-9, Vol. 1 361-368, 1995.

31. Z. Jiang and D. S. Argyropoulos\* “The Application of the Mannich Reaction Toward the Quantitative Analysis of Lignins.” *8th International Symposium of Wood & Pulping Chemistry,* Helsinki, Finland, June 6-9, Vol. 1 511-518, 1995.

30. Faix\*, O., Andersons, B., Argyropoulos, D. S. and Robert, D. “Determination of Total Phenolic Hydroxyl and Carbonyl Groups of Lignins. A Critical Overview.” *8th International Symposium of Wood & Pulping Chemistry,* Helsinki, Finland, June 6-9, Vol. 1 559-566, 1995.

29. Jiang, Z.H\*., Argyropoulos, D. S. and Granata, A. “Correlation Analysis of 31P NMR Chemical Shifts with Substituent Effects of Phenols.” paper no. 249, *36th Experimental NMR Conference*, Copley Place, Boston MA, March 26-30, 1995.

28. Argyropoulos, D. S\*. “Fundamental NMR Studies of Lignins: Emerging Answers to Issues of Concern in Relation to Pulping, TCF Bleaching and Yellowing.” *81stAnnual Meeting of the Technical Section of the Canadian Pulp and Paper Association*, A-209-A214, Feb. 1995.

27. Argyropoulos, D. S. and Luo\*, S. G. “Structural Investigations of lignin During the Bleaching of Sulphonated Mechanical Pulps.” *81st Annual Meeting of the Technical Section of the Canadian Pulp and Paper Association*, Poster Session, Feb. 1995.

26. Jiang, Z.H., Sun, Y\*., Argyropoulos, D. S. “Correlation Analysis in 31P NMR Spectroscopy Aimed at Understanding Photochemical Events in Lignin.” *81st Annual Meeting of the Technical Section of the Canadian Pulp and Paper Association,* Poster Session, Feb. 1995.

**1994**

25. Argyropoulos, D. S\*., Sun, Y, Berry, R. M. and Bouchard, J. “On the Reactivity of Dimethyldioxirane with Lignin Model Compounds.” *Third European Workshop on Lignocellulosics and Pulp*, Hasseludden, Stockholm, Sweden, August 29-31,pp. 266-271, 1994.

24. B. Saake\*, D. S. Argyropoulos , O. Faix, “Structural Investigations of Synthetic Lignins (DHP's) as a Function of Molar Mass and Mode of Preparation.” *Third European Workshop on Lignocellulosics and Pulp*, Hasseludden, Stockholm, Sweden, August 29-31, pp. 210-214, 1994.

23. Argyropoulos, D. S\*., Heitner, C. and Schmidt, J. A. “Observation of Quinonoid Groups During the Light-Induced Yellowing of Softwod Mechanical Pulp.” *Third European Workshop on Lignocellulosics and Pulp*, Hasseludden, Stockholm, Sweden, August 29-31, pp. 154-158, 1994.

22. Argyropoulos, D. S\*., Sun, Y, Berry, R. M. and Bouchard, J. “Reactions of Dimethyldioxirane with Lignin Model Compounds.” *1994 International Pulp Bleaching Conference.”* Hyatt Regency Hotel, Vancouver B.C. June 13-16, Posters vol., p.p. 83-91, 1994.

21. Sun, Y\*., and Argyropoulos, D. S. “Fundamentals of High Pressure Oxygen and Low Pressure Oxygen-Peroxide (EOP) Delignification of Softwood and Hardwood Kraft Pulps; A Comparison.”“*New Developments in Pulp Bleaching and Brightening.*” American Institute of Chemical Engineers, Spring National Meeting, Atlanta Georgia, Paper no. 30d, April 17-24 1994. **Invited Contribution**.

**1993**

20. Argyropoulos D.S\*. “Phosphorus-31 NMR Analysis of Lignins: A Novel Quantitative Method to Follow Structural Changes in Lignins.” *Proceedings International Conference on Emerging Technologies in the Pulp and Paper Industry,* Taipei Taiwan, pp. 8-12, May 18-20 1993. **Invited Contribution**.

19. Argyropoulos D. S\*. and Morin, F. “Probing the Macromolecular Structure of Wood and Pulps with Proton Spin-Lattice Relaxation Time Measurements in the Solid State.” *American Chemical Society National Meeting*, Cellulose Paper and Textiles Division, Paper No. 78, Denver Colorado, March 28-April 2 1993**, Invited Contribution.**

18. Argyropoulos, D. S\*. “Quantitative Phosphorus-31 NMR Analysis of Lignins; A New Tool for the Lignin Chemist.” *American Chemical Society National Meeting,* Symposium on “NMR of Biomaterials.” Cellulose Paper and Textiles Division, Paper No. 152, Denver Colorado, March 28-April 2 1993, **Invited Contribution**.

17. Argyropoulos, D. S\*. “31P NMR in Wood Chemistry, A Review of Recent Progress.” *Proceedings 7th International Symposium of Wood & Pulping Chemistry*, Beijing, China, May 25-28, Vol. 2. pp 776-787, 1993.

16. Argyropoulos, D. S\*., Bolker, H. I., Heitner, C., Archipov, Y., “The Structural Elucidation of Lignins Using 31P NMR Spectroscopy.” *Emerging Science and Technology for the Pulp and paper Industry*, McMaster University, Hamilton Ontario, Sept. 2 1993.

**1992**

15. Argyropoulos, D.S\*. “Phosphorus-31 NMR Spectroscopy as Applied to Wood Biopolymers.” *33rd Experimental Nuclear Magnetic Resonance Conference,* March 29-April 2, 1992, Asilomar Conference Center, Pacific Grove California.

14. Argyropoulos, D. S\*., “Phosphorus-31 NMR Analysis of Steam Explosion Lignins.” *Advances in Thermochemical Biomass Conversion,* May 11-15, 1992, Interlaken Switzerland.

**1991**

13. Argyropoulos, D.S\*. “New NMR Methods.” *Modern Methods of Analysis of Wood, Annual Plants and Lignins*, Monteleone Hotel, New Orleans, November 29 - December 1, 1991, **Invited Contribution.**

12. Argyropoulos, D.S\**.* “Phosphorus-31 NMR Analysis of Six Soluble Lignins. A Novel Method for Functional Group Quantitation.” *Modern Methods of Analysis of Wood, Annual Plants and Lignins*, Monteleone Hotel, New Orleans, November 29 - December 1, 1991, **Invited Contribution**.

11. Argyropoulos, D.S\*. and Heitner C. “Ultra High Yield Pulping Part VII. The Effect of pH During Impregnation on the Quality of Lightly Sulphonated TMP.” *International Mechanical Pulping Conference*, Minneapolis, Minnesota, pp.191-197, June 1-6, 1991.

10. Heitner, C., Argyropoulos, D.S\*., Miles, K., Karnis, A. and Kerr, B. “Alkaline Sulphite Ultra-High Yield Pulping of Aspen Chips - A Comparison of Steam Explosion and Conventional Chemimechanical Pulping.” *International Mechanical Pulping Conference*, Minneapolis, Minnesota, pp.151-164, June 1-6, 1991.

9. Archipov, Y.,Argyropoulos, D.S\*., Bolker, H. I., and Heitner, C. “31P NMR Spectroscopy in Wood Chemistry.” *International Symposium of Wood & Pulping Chemistry*, Melbourne Australia, 1, pp.359-366 April 30-May 4, 1991.

8. Argyropoulos, D.S\*., Archipov, Y., Bolker, H. I., and Heitner, C. The Potential of “31P NMR Spectroscopy in Wood Chemistry.” *Workshop on Methods of Analysis of Wood and Environmental Samples,* Rotorua, New Zealand , May 7-8, 1991.

7. Fillppov, V., Archipov, Y\*., and Argyropoulos, D. S., “4,4,5,5-Tetramethyl-1,3,2-dioxaphospholanyl Chloride-Derivatizing Reagent for Lignin Functional Group Analysis.” *Materials 7th International Conference of Young Scientists*, Riga, Latvia, (1991).

**1987-1982**

6. Argyropoulos, D.S\*. and Bolker, H. I. “The Gel Degradation Theory of Wood Delignification; Experimental Confirmation with a Model Polymer.” *Proceedings of the 4th International Symposium of Wood and Pulping Chemistry*, 1, 399-405, Paris, France, April 1987.

5. Argyropoulos, D.S\*. and Bolker, H. I. “Species Distribution in the Sol Phase Beyond the Gel Point.” *Macromolecular Reprints, Royal Society of Chemistry*, Oxford, England, Vol, 1, 111-114, (1986).

4. Argyropoulos, D.S\*., Bolker, H. I., “A Facile Synthesis of Monodisperse Carboxylated Polystyrene.” *Polymer Preprints* 27(1), 457, (1986). ACS National Meeting, New York, April 1986.

3. Argyropoulos, D.S\*. and Bolker, H. I. “Synthesis and Degradation of Polymer Networks.” *Polymer Preprints*, 25(2), 130 (1984), ACS National Meeting, Philadelphia, PA., August 1984.

2. Argyropoulos, D.S\*. and Bolker, H. I. “Breaking Crosslinks to Solubilize Lignin.” *Cellulose, Paper and Textile Division,* Paper No. 133 ACS National Meeting, Philadelphia, PA., August 1984.

1. Argyropoulos, D. S\*., Hodd, K.,A., and Wright, W., W., “The influence of Crosslink Density on Thermal Properties of Some Epoxy Resins Based on 4,4'-Diaminodiphenyl Methane.” 7th International Conference on Thermal Analysis, Paper no. IV-FF-5, Kingston, Ontario, August 22-28, 1982.