

1st International Symposium on Supercritical CO₂ Dyeing and Finishing Program

Oct. 10, 2018	
16:00~20:00	Registration
17:30~20:00	Welcome Reception (Place: Lobby Lounge at the Park Village)
Oct. 11, 2018	
08:30~09:30	Registration
09:30~09:50	Opening Ceremony (Place: Room 9, 2 nd Floor at the Park Village) Chair: Prof. Deog Hee Doh(Korea Maritime and Ocean Univ., Korea)
09:50~10:30	Plenary Lecture (Place: Room 9, 2 nd Floor at the Park Village) Speaker: Prof. Teruo Hori (Univ. of Fukui, Japan) Title: Present Situation of Supercritical Fluid Dyeing and Finishing Chair: Prof. Heuy Dong Kim (Andong National Univ., Korea)
10:30~10:50	Coffee Break
Technical Session I , Chair: Prof. Kazuya Sawada(Osaka Seikei College, Japan)	
10:50~11:05	Preparation of natural polymer aerogel using supercritical carbon dioxide S. Ueeda, Y. Okahisa, E. Kotani / Kyoto Inst. of Tech, S. Okubayashi / Kyoto Inst. of Tech., Kyoto Univ., Japan
11:05~11:20	Investigations on the effect of carriers on meta-aramid fabric dyeing properties in supercritical carbon dioxide Huanda Zheng, Juan Zhang, Laijui Zheng / Dalian Polytechnic Univ., China
11:20~11:35	Fabrication of acellular tissue utilizing supercritical fluid extraction K. Sawada / Osaka Seikei College, Y. Tanaka, M. Ogawa, T. Fujisato / Osaka Inst. of Tech, Japan
11:35~11:50	Impregnation of functional polymers into fibers using supercritical CO₂ Y. Shigeno, S. Okubayashi / Kyoto Inst. of Tech., Japan
11:50~12:05	Study on Phase Equilibrium Model and Decoupling Control in Supercritical CO₂ Dyeing Process F.J. Jin, Z. Y. Lin, L. C. Zhou / Huaqiao Univ., China
12:05~12:20	A New Equation of State for Supercritical CO₂ S. K. Raman / Andong National Univ., D. H. Doh / Korea Maritime and Ocean Univ., H. D. Kim / Andong National Univ., Korea
12:20~14:00	Lunch (Place : Cymbidium, 3 rd Floor)

Technical Session II , Chair: Prof. Kazumasa Hirogaki(Univ. of Fukui, Japan)	
14:00~14:15	Applications of supercritical CO₂ to Finishing and Conservation of Textile & Paper S. Okubayashi / Kyoto Inst. of Tech., Japan
14:15~14:30	Characteristics of PET Fabric Under Various Supercritical Fluid Dyeing Conditions G Y. Lee, S. S. Kim, J W. Lee / Yeungnam Univ., Korea
14:30~14:45	Deposition on Kevlar Fabric Modified with Aminopropyltrimethoxysilane in Supercritical Fluid via Electroless Plating G. H. Zheng, J. H. Ren / Chengdu Textile College, R. H. Guo / Sichuan Univ., China
14:45~15:00	Investigation of Dyeing Condition for Cotton fabric with Reactive Disperse Dye under Supercritical Carbon Dioxide K. Nakamura, K. Koizumi, I. Tabata, T. Hori, K. Hirogaki, F. E. Taweel / Univ. of Fukui, Japan, T. A. Elmaaty / Damietta Univ., Egypt
15:00~15:15	Eco-friendly Dyeing Polyester Fabric in Supercritical Carbon Dioxide and Its Fluorescence Imaging X. Q. Xiong, Y. Y. Xu, L. J. Zheng, J. Yan, H. J. Zhao / Dalian Polytechnic Univ., China
15:15~15:30	Fundamental study for functional processing to polyester by CO₂ Jet Y. Hirata, Y. Kude / Monash Univ., Australia
15:30~16:00	Coffee Break
Technical Session III , Chair: Guangping Liu(Chongqing 3533 Printing and Dyeing Garment Factory, China)	
16:00~16:15	3D Aerogel of Cellulose Triacetate using Supercritical CO₂ Assisted Process for Drug Delivery C. Wang/Kyoto Inst. of Tech., S. Okubayashi / Kyoto Univ., Kyoto Inst. of Tech., Japan
16:15~16:30	Computational study on S-CO₂ flow distribution in a beam dyeing machine R. V. Reji, H. D. Kim / Andong National Univ., Korea
16:30~16:45	Silver Nanoparticles Coating on Wool Fabric in Supercritical Carbon Dioxide On the use of particles lasers and cameras to measure flow velocity R. H. Guo / Sichuan Univ., J. H. Ren / Chengdu Textile College, L. H. Peng / Sichuan Univ., China
16:45~17:00	Water Free Scouring & Dyeing of Cotton/Polyester Fabrics using Supercritical Carbon Dioxide S. Okubayashi / Kyoto Inst. of Tech., H. Ghanayem / Kyoto Inst. of Tech., Japan, Damietta Univ., Egypt, T. A. Almaty / Damietta Univ., Egypt, N. Ibrahim / National Research Center, Egypt
17:00~17:15	Development of Metal Foam Based Condenser to Liquefy Supercritical CO₂ Gas at High-Pressure Condition S.Y. Kim, K.C. Kim / Pusan National Univ., Korea
17:15~17:30	Effect of Supercritical Carbon Dioxide on Dyeability and Physical Properties of Ultra-High Molecular Weight Polyethylene Fiber J. H. Ma / Kyoto Inst. of Tech., Japan, T. A. Almaty / Damietta Univ., Egypt, S. Okubayashi / Kyoto Inst. of Tech., Japan
17:30~20:30	Banquet (Place: The Buffet at Inter-Burgo, 2 nd Floor) Chair: Prof. Deog Hee Doh(Korea Maritime and Ocean Univ., Korea)

Oct. 12, 2018	
08:30~15:30	Registration
09:30~10:10	Plenary Lecture (Place: Room 9, 2 nd Floor at the Park Village) Speaker: Prof. Youn-Woo Lee (Seoul National Univ., Korea) Title: To the critical point and beyond: Journey to the New World Chair: Prof. Sam Soo. Kim (Yeungnam Univ., Korea)
10:10~10:30	Coffee Break
Technical Session IV , Chair: Prof. Jae Woong Lee(Yeungnam Univ., Korea)	
10:30~10:45	Modeling and Nonlinear Decoupling Control of Supercritical CO₂ Dyeing Process L. C. Zhou, F. J. Jin / Huaqiao Univ., G. H. Zheng / Chengdu Textile College, China
10:45~11:00	Influence of aramid molecular structure on physical gelation of aramid fibril dispersion and its aerogelation through supercritical drying Y. Yoshikawa, I. Tabata, T. Hori, K. Hirogaki / Univ. of Kukui, M. C. Hwang, K. Kosuge / KOSUGE Co. Ltd., Japan
11:00~11:15	Preparation of Para-aramid Aerogel Fiber through Physical gelation of Fibril dispersion and Supercritical Drying T. Nagahama, A. Uchimura, I. Tabata, T. Hori, K. Hirogaki / Univ. of Fukui, Japan
11:15~11:30	Investigation of cotton fabric desizing in supercritical carbon dioxide fluid W. Shi, K. Yan, J. J. Long / Soochow Univ., China
11:30~11:45	Study on Supercritical Dyeing Technology of stockings of nylon Z. H. Li, G. H. Zheng, J. H. Ren, X. Zheng, Y.X. Jiang, Y. Bo, G. Li / Chengdu Textile College, China
11:45~12:00	Micronization of Dye Materials through RESS Process T. W. Kim, G. H. Park, Y, W. Lee / Seoul National Univ., Korea
12:00~13:30	Lunch (Place : Cymbidium, 3 rd Floor)
13:30~15:00	International Steering Committee Meeting (Place: Executive Lounge)
15:00~15:30	Closing