"Applied Rheology" discussed in the 12th Annual Meeting of the Japan Society of Polymer Processing (JSPP)

Tokyo, Japan
May 31st - June 1st, 2001

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The JSPP annual meeting of this year, 12th annual meeting, was held in Tokyo from May 31 to June 1, 2001. In the meeting, we had two plenary lectures, five special fields symposia, several keynote lectures, 680 participants and contribution of 150 oral and 50 poster presentations. "Rheology and Rheometry" is one of the major topics, and it had 6 oral and several poster presentations. In this article, activity of the JSPP especially on the rheology field is briefly introduced by referring the presentations in the meeting.

In the oral sessions, there were three papers of numerical analysis on polymeric flow. Tanoue et al. [2] performed finite element analysis of extrusion through the rotating-tip tube die using Giesekus constitutive equation. These numerical studies are rather active in JSPP; indeed one of the special symposia assigned to "Computer Aided Engineering for Polymer Processing" had 17 oral presentations. In the special session, there were some studies that directly related to the rheological study. Kihara et al. [3] reported numerical simulation of a mixing process in twin screw extruder incorporating break-up and coalescence of the dispersed phase. In this meeting, Tamura et al. [4] were awarded one of the poster prize for an experimental study relating to the rheology. They applied high-amplitude ultrasonic wave to polymer melt to induce the acoustic flow field and to control the local orientation of the polymer melt. It is distinguished characteristic of the meeting that we rarely find a fundamental topic on the rheology but rather applied and/or engineering issues.

It is noteworthy to inform you that the special session assigned to "Processing of Super Critical Conditioned Polymer Melts" was extremely excited with 17 oral presentations. Forming and plasticization using super critical matters such as carbon dioxide attract special interest of the society in these years. Rheological aspects on this topic would be much more needed and indeed growing. Nagata et al. [5] reported the effect of dissolving carbon dioxide on shear viscosity of olefin polymer. Though the most of the participants are currently Japanese, the JSPP is strongly propelling the internationalization of the meetings; conference program and paper abstracts are published in English. It is greatly appreciate it if you kindly consider to join us and to discuss on the field of the "Applied Rheology" in polymer processing.

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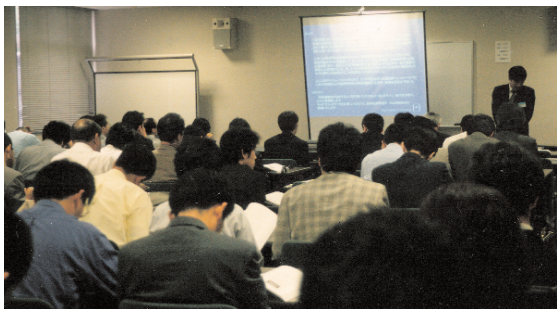
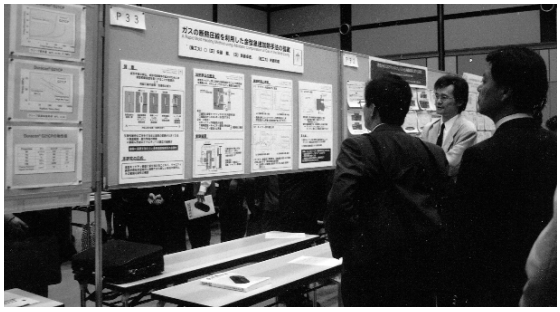
[1] http://www3.ocn.ne.jp/~jspp
[2] S. Tanoue, Y. Iemoto, and K. Takaya, Proc. 12th Annu. Meet. JSPP (2001) 79
[3] S. Kihara, T. Takayama, M. Yamaura, T. Tuji, and K. Funatsu, Proc. 12th Annu. Meet. JSPP (2001) 37
[4] M. Tamura, S. Kawakami, Y. Masubuchi, J-I. Takimoto, and K. Koyama, Proc. 12th Annu. Meet. JSPP (2001) 303
[5] T. Nagata, T. Kuwahara, S. Areerat, M. Oshima, and M. Tanigaki, Proc. 12th Annu. Meet. JSPP (2001) 129

Figure 1 (above): Typical scene of oral presentation

Figure 2 (below): Typical scene of poster presentation





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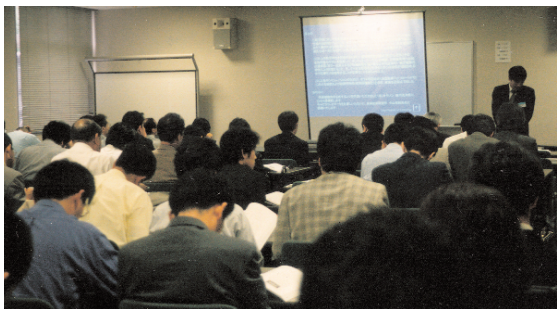

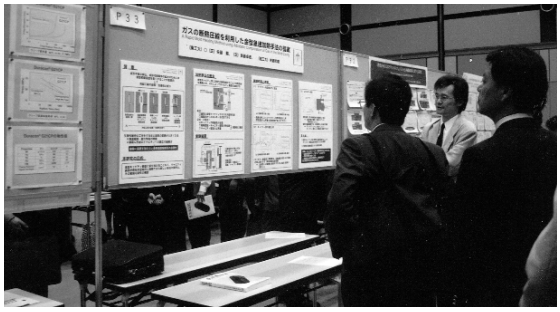

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