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Synthesis of Organic Compounds V [in Japanese], Makoto SHIMIZU: The Fifth Series of Experimental Chemistry, Vol. 17, Maruzen (Tokyo), pp. 311-336, 2004

Synthesis of Organic Compounds VI [in Japanese], Makoto SHIMIZU, Iwao HACHIYA: The Fifth Series of Experimental Chemistry, Vol. 18, Maruzen (Tokyo), pp. 280-310, 2004

Synthesis of Organic Compounds VII [in Japanese], Makoto SHIMIZU: The Fifth Series of Experimental Chemistry, Vol. 19, Maruzen (Tokyo), pp. 160-171, 2004

MgX, MgOR, MgN, etc, Makoto SHIMIZU: In "Science of Synthesis / Houben-Weyl", Vol. 7, Georg Thieme Verlag (Stuttgart), pp. 629-667, 2004

Antigen-Based B Cell Targeting Technique to Generate High Yields of Monoclonal Antibodies, Masahiro TOMITA, Mitsumi SUGAO, Takanobu TANIGUCHI, Jun-ichiro TANAKA, Hana SAWADA*, Shigeru FUJIMOTO*, Norikazu NISHINO*, Tian Yow TSONG*, Tetsuro YOSHIMURA: Human Antibodies, 13, p.42, 2004

Dynamics of an Air Bubble Rising in a Hele-Shaw Cell Filled with Polymer Solutions [in Japanese], Sukehiro NIGA, Nobuaki GOH, Masami KAWAGUCHI: Polymer Processing 53 (6), pp. 274-277, 2004

The buoyancy-driven paths of an air bubble rising in a Hele-Shaw cell, which contains aqueous polymer solutions, were described in terms of path instabilities, such as changes in the shape and trajectory of the bubble. An increase in the polymer concentration induced three path instabilities and in particular, a trajectory transition from a damped path to a straight one almost occurred at the same bubble diameter, irrespective of the polymer solution, due to the presence of Karman's vortex-street.

Classification, Preparation, and Stabilization of Emulsions [in Japanese], Masami KAWAGUCHI: Modern Technology of Emulsification, Jyohohkikoh (Tokyo), Chapter 3, pp. 51-64, 2004

The basic experiments in emulsions were described in terms of the experimental procedure, classification, characterization, and applications of emulsions. In this chapter, some details for experimental estimation of the stability of emulsions were explained based on the characteristics of emulsions.

Rheology of Emulsification [in Japanese], Masami KAWAGUCHI: Rheology, Jyohohkikoh (Tokyo), Section 3, pp. 70-81, 2004

Rheological properties of emulsions were described in terms of emulsions stabilized by polymeric surfactants, emulsions depleted by polymers, and emulsions stabilized by silica particles coated with polymers. In this section, we emphasized that the stabilities of emulsions were strongly related with their rheological properties.