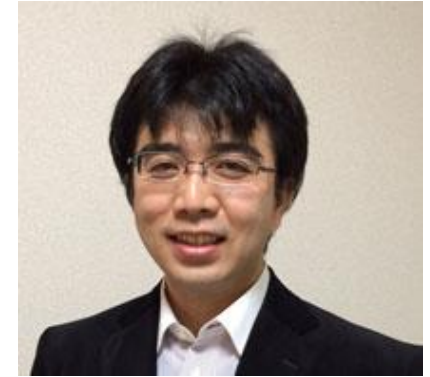


Name : Masahiro Takinoue

Expertise : System Biophysics, Nonlinear
Nonequilibrium Science



Affiliation :

Department of Computational Intelligence and Systems Science, Interdisciplinary
Graduate School of Science and Engineering, Tokyo Institute of Technology

URL: <http://www.takinoue-lab.jp/en/>

Reserch Theme in This Project :

Construction of cell-type molecular robots

Main Research Results, Publications :

- Masamune Morita, Hiroaki Onoe, Miho Yanagisawa, Hiroaki Ito, Masatoshi Ichikawa, Kei Fujiwara, Hirohide Saito, Masahiro Takinoue, “Droplet-Shooting and Size-Filtration (DSSF) Method for Synthesis of Cell-Sized Liposomes with Controlled Lipid Compositions”, ChemBioChem, accepted (2015).
- Hitoyoshi Yamashita, Masamune Morita, Haruka Sugiura, Kei Fujiwara, Hiroaki Onoe, Masahiro Takinoue, “Generation of Monodisperse Cell-Sized Microdroplets using a Centrifuge-Based Axisymmetric Co-Flowing Microfluidic Device”, J. Biosci. Bioeng., vol.119, no.4, pp.492-495 (2015).
- Masahiro Takinoue, Hiroaki Onoe, Shoji Takeuchi, “Fusion and fission control of picoliter-sized microdroplets for changing the solution concentration of microreactors”, Small, vol.6, pp.2374-2377 (2010).
- Masahiro Takinoue, Yu Atsumi, Kenichi Yoshikawa, “Rotary motion driven by a direct current electric field”, Appl. Phys. Lett., vol.96, 104105 (2010).
- Masahiro Takinoue, Daisuke Kiga, Koh-ichiroh Shohda, Akira Suyama, “RNA oscillator: limit cycle oscillations based on artificial biochemical reactions”, New Gener. Comput., vol.27, no.2, pp.107-127 (2009).
- Masahiro Takinoue, Daisuke Kiga, Koh-ichiroh Shohda, Akira Suyama, “Experiments and simulation models of a basic computation element of an autonomous molecular computing system”, Phys. Rev. E, vol.78, article number 041921 (2008).
- Masahiro Takinoue, Akira Suyama, “Hairpin-DNA Memory Using Molecular Addressing”, Small, vol. 2, pp. 1244-1247 (2006).

Comment: Not just integration systems of theories and techniques, but construction of original discipline of 'molecular robotics'