

Title of project(s)

New graphene-based nanofluidic devices

Assignments

- [Novel magnetic microspheres for improving on-chip microfluidic pumping](#)
In this assignment new magnetic microspheres have to be developed by coating existing microspheres with magnetic material. These novel magnetic particles are used to increase the pumping rate of an microfluidic on-chip pump.

Teaching

Introduction to Engineering II

Resume/Biography

Wesley started the bachelor Electrical Engineering at the University of Twente in 2006. In 2010 he finished his bachelor and started the master Electrical Engineering, track Microsystems and Microelectronics. He performed his master assignment in the BIOS group, the master thesis was titled *Microfluidic pump based on arrays of rotating magnetic microspheres*, he finished his masters in May 2012. Since June 2012 he has been working as a PhD student in the BIOS-group, performing research on graphene.

Proceedings

Beld van den, W.T.E. and Weerd de, E.L. and Abelmann, L. and Bomer, J.G. and Berg van den, A. and Eijkel, J.C.T. (2012) [Microfluidic pump based on arrays of rotating magnetic microspheres](#). In: MicroTAS 2012, 16th International Conference on Miniaturized Systems for Chemistry and Life Sciences, October 28 - November 1, 2012, Okinawa, Japan.