The Universiteit van Amsterdam (UvA) is one of the leading institutions for higher education in Europe. It participates in the international science network, collaborating with major universities throughout the world. The faculty has four departments, with about 1,500 employees including researchers and lecturers, 150 full-time and part-time professors operating in ten research institutes. Each institute has its own research program that is financed by the faculty, the national research council NWO, the government, EU departments and private enterprises. Chemical sciences are covered by the Van ’t Hoff Institute for Molecular Sciences (HIMS), which is organized in six research themes: Catalysis, Molecular Photonics, Computational Chemistry, Bio-Molecular Synthesis, Complex Fluids and Macromolecular and Biosystems Analysis.

HIMS has a temporary position for a postdoc in the context of the Specific Targeted REsearch Project (STREP) "Hydrogen-bond geared Mechanically interlocked Molecular Motors" (Hy3M) that is funded by the Sixth Framework EC programme “Nanotechnologies and nano-sciences, knowledge-based multifunctional materials and new production processes and devices (NMP)”, and coordinated by Prof. W.J. Buma. Participants in the Network are the groups of Prof. W.J. Buma, Prof. David Leigh (University of Edinburgh, Synthetic Chemistry), Prof. Francesco Zerbetto (University of Bologna, Computational Chemistry), Prof. Petra Rudolf (University of Groningen, Surface Spectroscopy), Prof. Francois Kazjar (CEA Saclay, Non-linear Optics), Dr. Fabio Biscarini (CNR Bologna, Scanning Probe Microscopy), and an industrial company, Intertek ASG.

**Project description:**
The principal aim of Hy3M is to employ mechanically interlocked molecular level architectures - such as rotaxanes and catenanes - to influence the individual components that make up a material in such a way that the macroscopic properties can be changed via a specific stimulus. In the project mechanically interlocked molecules seeded into molecular beams with laser desorption will be studied using various high-resolution spectroscopic techniques (LIF, REMPI-PES, UV-UV and IR-UV hole burning, etc.). The ultimate aim is to devise experimental approaches to influence and control conformational structure.

**Requirements:**
The candidate (postdoc with a PhD degree) should have a strong background in laser spectroscopy. Experience with molecular beam techniques is not required but would be preferred.

**Contact:**
Prof. dr. W.J. Buma, Tel. +31-20-525 6973, E-mail : w.j.buma@uva.nl
Van ’t Hoff Institute for Molecular Sciences (HIMS), University of Amsterdam, Nieuwe Achtergracht 166, 1018 WV Amsterdam, NL

**Conditions of employment:**
Appointment for the Postdoc position is for a period of 12 months with a possible extension to 24 months. The salary will be in accordance with the University regulations for academic personnel, and will range from € 2.191 to € 3.472 gross per month, depending on expertise and previous experience. The Collective Employment Agreement of the Dutch Universities is applicable.