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# Atomic Scale and Single Molecule Logic Gate Technologies

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# AtMol project

AtMol, ICT/FET Integrated Project (IP) funded by the European Commission, will establish comprehensive process flow for fabricating a molecular chip, i.e. a molecular processing unit comprising a single molecule connected to external mesoscopic electrodes with atomic scale precision and preserving the integrity of the gates down to the atomic level after the encapsulation.

## Short facts

- AtMol Atomic Scale and single Molecule Logic gate Technologies
- EC contribution 6,9 M euros
- Contract number 270028
- N° of partners 11
- Coordinator CEMES-CNRS (France) / Christian Joachim
- Start date January 01, 2011
- Duration 48 months

## Publications

- C. Joachim & al., Ad. Materials (2012)
- H. Kawai & al., J. Phys. CM (2012)
- M. Koch & al., Nature Nano (2012)
- M. Kolmer & al., Phys. Rev. B (2012)
- R. Robles & al., J. Phys. CM (2012)
- W.H. Soe & al., ACS Nano (2012)
- J.C. Tremblay & al., J of Physical Chemistry (2012)

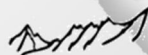
## Events



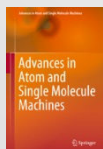
# AtMol

- Imaging and Manipulation of Adsorbates using Dynamic Force Microscopy; Nottingham, UK. (April 16-17, 2013)
- Quantum resources for single molecule-machines; Les Houches, France. (January 27 - February 01, 2013)

ÉCOLE DE PHYSIQUE  
des HOUCHES

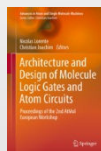


## Highlights



**Advances in Atom and Single Molecule Machines**

*Proceedings of the 1st AtMol European Workshop (Singapour)*



**Architecture and Design of Molecule Logic Gates and Atom Circuits**

*Proceedings of the 2nd AtMol European Workshop (Barcelona)*