

PARTNERS



Agencia Estatal Consejo Superior de
Investigaciones Científicas
CSIC

Coordinator

Responsible for the synthesis and assembly of novel functional molecules as well as for the project's life cycle management including the reporting to the European Commission.

Location: Barcelona, Spain

Main leader: Nuria Crivillers

Project manager: César Díez

E-mail: ncrivillers@icmab.es; cdiez@icmab.es



University of Bern
UB

Responsible for the characterization of electro-active molecules and transport measurements under electrochemical conditions.

Location: Bern, Switzerland

Main leader: Alexander Rudnev

E-mail: rudnev@dcb.unibe.ch



Kavli Institute for Nanoscience,
Delft University of Technology
TU Delft

Responsible for the fabrication of novel three-terminal graphene/ferromagnet devices and for the electron transport measurements.

Location: Delft, The Netherlands

Main leader: Dr. Enrique Burzuri

E-mail: e.burzurilinares@tudelft.nl



Trinity College Dublin
TCD

Responsible for the modelling and the computational studies of novel molecular materials and of electron.

Location: Dublin, Ireland

Main leaders: Dr. Ivan Rungger and Dr. Andrea Droghetti

E-mail: runggeri@tcd.ie and drogheta@tcd.ie

CONSORTIUM

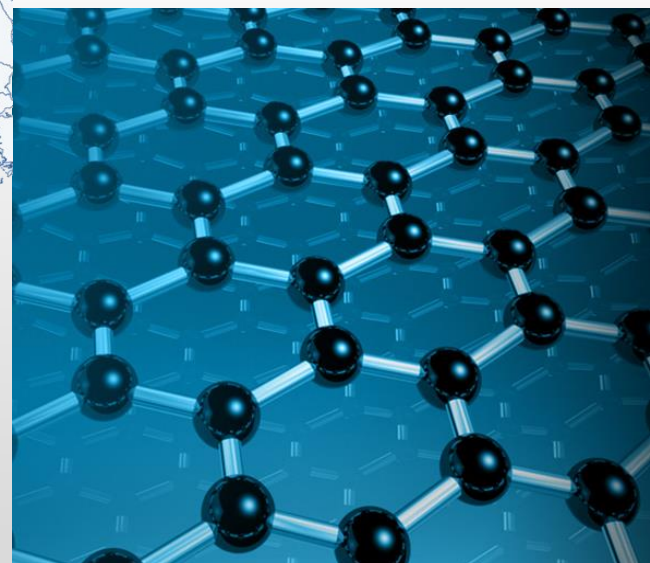


The **ACMOL** consortium brings together young, highly motivated and talented scientists from several countries and with complementary backgrounds.

ACMOL provides the unique possibility to combine the specific and diverse skills of each involved investigator in order to propose novel concepts in physics, chemistry and nano-science for the future developments of information technologies.



Electrical spin manipulation in electroACTIVE MOLEcules



Collaborative project
FP7-ICT-2013-C
GA No: 618082

CONTACTS

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www.acmolproject.eu

GOAL

ACMOL will create a link between graphene-based electronics, molecular magnetism and electrochemistry in order to investigate how both the electron charge and the spin can be exploited for processing information at the single molecule level in ambient conditions.

Device Fabrication
Synthetic chemistry
Quantum physics
Electrochemistry
High-end computing



Read and write
information on a
single molecule spin

FRAMEWORK

While the current information age has been based on semiconductor materials, in the last decades, the contemporary evolution of molecular electronics, the discovery of graphene and the progresses in the synthesis of novel magnetic molecular compounds have opened new unprecedented possibilities for the future technological and scientific developments.

THE RESEARCH PILLARS

- Synthesis of novel magnetic and electro-active organic molecules for the graphene functionalization.
- Design and development of novel molecular junctions incorporating graphene electrodes.
- Study of spin transport in hybrid ferromagnet/graphene/molecular devices.
- Theoretical modeling of spin transport at the nanoscale.



START DATE
1st January 2014



END DATE
31st December 2016



DURATION
36 months



FUNDING
1,187,431.00 €

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