

## Manuel Cardona Lectures

This series of lectures offer the opportunity to interact with some of the most prominent researchers in nanoscience-related fields. At the same time, they are a tribute to Prof Manuel Cardona, a key figure in the history of this Institute.





Nazario Martín University Complutense of Madrid



Friday, Nov 4, 2016, 12:00h



ICN2 Seminar Hall, ICN2 Building, UAB

Invited by:
Daniel Ruiz
Nanostructured Functional
Materials group, ICN2

### Short Bio

**Nazario Martín** is full professor of Organic Chemistry at the University Complutense of Madrid and vice-director of the Institute for Advanced Studies in Nanoscience of Madrid (IMDEA-Nanoscience). Dr. h.c. by La Havana University (Cuba) and Castilla La Mancha University (Spain), Professor Martín's research interests span a range of targets with emphasis on the molecular and supramolecular chemistry of carbon nanostructures such as fullerenes, carbon nanotubes and graphene, ?-conjugated systems as molecular wires and electroactive molecules, in the context of electron transfer processes, photovoltaic applications and nanoscience. He has published over 520 papers in peer reviewed journals, given around 360 lectures in scientific meetings and research institutions, and supervised 34 theses (Ih = 64). He has co-edited seven books related with carbon nanostructures and he has been invited as guest editor for nine special issues in well-known international journals.

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To confirm your attendance, please register at: <a href="https://goo.gl/forms/jKaabAM5am4GVOhA3">https://goo.gl/forms/jKaabAM5am4GVOhA3</a>
Registration is free!











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#### Short Bio

Professor Martín has been visiting professor at UCSB and UCLA (California, USA) and Angers and Strasbourg (France) universities. He has served as a member of the Editorial Board of Chemical Communications, and as General Editor of the Spanish journal Anales de Química (2000-2005). He has been a member of the International Editorial Advisory Board of The Journal of Materials Chemistry (2000-2006) and a member of the Board of The Journal of Organic Chemistry and Accounts of Chemical Research (ACS), ChemPlusChem, ChemSusChem and Chemistry-an Asian Journal (Wiley-VCH), and a member of the International Advisory Board of Chemical Society Reviews and Chemical Communications (RSC). Recently he became the Edictor-in-Chief of The Journal of Materials Chemistry (A, B and C). He is a member of the Royal Academy of Doctors of Spain (2006) and the Academy of Sciences of Spain (2015), as well as a Fellow of The Royal Society of Chemistry. In 2006-2012 he has been the President of the Spanish Royal Society of Chemistry. He has been the recipient of the "Dupont Prize of Science" in 2007 and of the "Gold Medal and Research Award" in 2012, the highest distinction given by the Spanish Royal Society of Chemistry. He has been appointed with the Spanish national "Jaime I Award for basic research" 2012 (received from her Majesty The Queen), and the recipient of the "Alexander von Humboldt Award" (Germany) and "Richard E. Smalley Research Award" (USA) in 2013. He has been distinguished with the "EuCheMS Lecture Award" in 2012. He has received the "Catalán-Sabatier" award from the French Chemical Society in 2014, the prestigious "Miguel Catalán" award from the Madrid Community in 2015 and the "Elhuyar-Goldsmith" award from the German Chemical Society (GDCh) in 2016.

He has been appointed as the President of the Confederation of Scientific Societies of Spain (COSCE) in 2015. In 2012 he received the "Advanced Grant" of the European Research Council (ERC) entitled "Chriallcarbon".

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# Carbon Nanostructures for the Ébola Virus

Prof. Nazario Martín University Complutense of Madrid

#### **Abstract**

We have shown that fullerene sugar balls, namely hexakis-adducts of [60]fullerene appended with 12, 24 or 36 mannose moieties, act as strong inhibitors for DC-SIGN in an Ebola infection assay model. Furthermore, a drastic increase in the inhibition process to the subnanomolar scale has been observed when the size and mannoses´ number are increased in the new tridecafullerenes endowed with 120 mannose units decorating the periphery of the molecule.

In this presentation, the different nanocarbons platforms used for the multivalent presentation of carbohydrates for an artificial Ebola virus infection model will be discussed.







