

## Curriculum Vitae

## Roger C. Hiorns

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**Nationality** British  
**Date of birth** 15.10.1967  
**Situation** Married, 2 children  
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[http://iprem.univ-pau.fr/fr/\\_plugins/mypage/mypage/content/rhiorns.html](http://iprem.univ-pau.fr/fr/_plugins/mypage/mypage/content/rhiorns.html)

**Position** Chargé de Recherche, CNRS, HDR  
IPREM (CNRS UMR-5254),  
Université de Pau et les Pays de l'Adour  
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### Positions

2009 - present **Chargé de Recherche CNRS (CR1)**, IPREM (CNRS UMR-5254)  
Syntheses of n-type polymers and block copolymers

2007 - 2009 **Ingénieur en Sciences des Polymères CNRS**, LCPO, ENSCPB, IPB  
Syntheses of block copolymers for photovoltaic applications  
Directors: Prof. H. Cramail and Dr. E. Cloutet

2002 - 2006 **Ingénieur en Sciences des Polymères**, LPCP, Université de Pau  
Preparation of thiophene and C<sub>60</sub> based polymers for solar cells  
Directors: Dr J. François and Prof. J. Desbrières.

2000 - 2002 **Post-doc**, LPCP, Université de Pau. Exploitation of a wide range of organo-metallically mediated polymerizations. Director: Dr B. François.

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### Responsibilities

2018-2019 & 2012-2015 **Titular Member**, IUPAC Polymer Division

2015 - present **IUPAC Division IV representative**, *Pure and Applied Chemistry*

2015 - 2017 **Member**, Commission Energie et Développement Durable,  
[Communauté de Communes de Vic-Montaner](#)

2014 - present **Chair**, [IUPAC Subcommittee on Polymer Terminology](#)

2016 - 2017 **Associate Member**, IUPAC Polymer Division

2010 - 2013 **Secretary**, IUPAC Subcommittee on Polymer Terminology

2010 - 2011 **Associate Member**, IUPAC Polymer Division

2009 - present **Associate Editor**, *Polymer International*

2007 - present **Member**, IUPAC Subcommittee on Polymer Terminology

2007 - 2009 **Editorial Board Member**: *The Open Physical Chemistry Journal*;  
*Open Physical Chemistry Reviews and Open Physical Chemistry Letters*

2000 - 2008 **Technical Editor**, *Polymer International*

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### Publications

Patents	6
Peer Reviewed Articles	<b>64</b>
Wikipedia pages	1
Book Chapters	2
Guest Editing Special Issues	5
Invited Lectures at International Conferences	20
Invited Lectures at National Conferences	1
Invited Seminars	29
Conference Oral Presentations by Peer Review	41
Poster presentations by Peer Review	45
<b>h factor</b> (Google Scholar)	<b>22</b>
<b>i10-factor</b> (Google Scholar)	<b>40</b>
citations (Google Scholar)	>2100
<b>Responsible for funding since 2009</b>	ca 4.2 M€

## Other Responsibilities to the Scientific Community

**Visiting Scholar** Universidade Estadual Paulista Júlio de Mesquita Filho (UNESP), Sao Paulo, Brazil, September 2012, September 2015 & September 2017.  
School of Engineering & Applied Science, Aston University, UK, April 2012 & October 2017.

**Journal Referee** *Advanced Materials, Advanced Functional Materials, Advanced Energy Materials, Australian Journal of Chemistry, Biomacromolecules, Chemical Communications, Dalton Transactions, Physical Chemistry Chemical Physics, Journal of the American Chemical Society, Journal of Materials Chemistry, Macromolecules, Macromolecular Materials and Engineering, Macromolecular Chemistry and Physics, Nature, Nature Chemistry, Polymer, Polymer International, The Journal of Organic Chemistry, and Organic Letters etc.*

**Project Referee** Research Centres of Excellence: Aston Centre for International Solar Energy & Water Management, 2011; ANR referee for the 'Programme Blanc', 2012, 2013, 2016; Invited EEC Horizon2020-ITN expert for 2014; College d'Arudy Technology class 2014.

### Special Issue Guest Editor

'Melanin and Melanin-like Substances', *Polymer International*, **2016**, volume 65, issue 11;  
'DIELOR 2013', A. Moliton, R. C. Hiorns, *Polymer International*, **2014**, volume 63, issue 8;  
'DIELOR 2011', A. Moliton, R. C. Hiorns, *Polymer International*, **2012**, volume 61;  
'Professor R. G. 'Dick' Jones' Retirement Special Issue', *Polymer International*, **2009**, issue 58;  
'DIELOR 2004', A. Moliton, R. C. Hiorns, *Polymer International*, **2006**, issue 55.

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### Habilitation à Diriger des Recherches (HDR) 2011, Université de Pau et des Pays de l'Adour

'Chimie des Polymères, notamment les copolymères à base de Fullerène/'Polymer Chemistry, notably copolymers based on fullerene'

### Jury Members

Prof. Jean-Pierre Vairon, Université Pierre et Marie Curie	(Président)
Prof. Christophe Derail, Université de Pau et des Pays de l'Adour	(Director)
Prof. Piérick Hudhomme, Université d'Angers	(Rapporteur)
Prof. Jenny Nelson, Imperial College London	(Rapporteur)
Prof. Dr. Mag. Niyazi Serdar Sariciftci, FRSC, Johannes Kepler University of Linz	(Rapporteur)
Dr. Hans-Joachim Egelhaaf, Konarka Technologies GmbH (now OPVIUS GmbH)	(Examineur)
Dr. Danielle Gonbeau, Université de Pau et des Pays de l'Adour	(Examineur)

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### Education

1994-1998 **PhD (UK) and Doctorat (France)** by *cotutelle*, 'Synthesis and characterisation of novel copolymers of polymethylphenylsilane'. Directors: Prof. R. G. Jones (University of Kent, UK) and Prof. F. Schué (Université de Montpellier, established 1220).  
1993 - 1994 **MSc**, Materials Chemistry, University of Kent (UK).  
1986 - 1989 **BSc (Hons)**, Chemistry, University of Birmingham (UK).

### Additional Experience

1998-1999 **Editorial Assistant** for the Society of Chemical Industry, London  
1989-1993 **Photographer** and b/w printer for the national press (Independent, The Guardian, Times, Daily Mirror etc.)

## Project Coordinator – Grant Awards

- 8 Increasing the Efficiency of Organic Solar Panels (INFO). *Agence Nationale de la Recherche*. Funds for EEC project construction. Starting 1/09/2017 to last 18 months. **Project awarded 19 500 €.**
- 7 Synthesis and Characterisation of Amphiphilic Poly(fullerene) Copolymers for Bio-electronic Applications (SCAFOL). Awarded by *Université de Pau et des Pays de l'Adour*. Funds for one PhD. Starting 1/09/2017 to last 3 years. **Dr R. C. Hiorns (Director), Prof. D. Bégué (Co-director). Project awarded 100 000 €.**
- 6 Development Grant for Realisation of Graphene-based Materials for Organic Solar Cells, (GRAPhT). Awarded by *Aquitaine Science transfer*. Funds for one Post-Doc. Starting 1/11/2015 to last 6 months. **Prof. D. Bégué and Dr R. C. Hiorns (Co-Coordinators, IPREM, France). Project awarded 30 000 €.**
- 5 'A Brief Guide to Polymer Terminology', IUPAC project 2012-048-3-400. Starting 3/6/2013 to last 36 months. Submitted by: Dr R. J. Boucher (J. Wiley and Sons, UK), Dr. C. H. Do (Korea), Dr R. Duhlev (Elsevier, UK), Dr K.-H. Hellwich (Germany), Dr R. C. Hiorns (**Coordinator**, France), Prof. P. Hodge (UK), Prof. P. Kratochvíl (Czech Republic), Prof. R. G. Jones (UK), C. Luscombe (USA); Prof. C. K. Ober (USA); Prof. C. K. Ober (USA); Prof. R. F. T. Stepto (UK); Dr. N. Stingelin (UK), Dr. M. Walter (USA), and Prof. J. Vohlidal (**Co-coordinator**, France). Project awarded 5000 US \$.
- 4 'Incorporation of Fullerene into Polymers for Photovoltaic Applications' ('*Incorporation du Fullerène en Polymère Pour des Applications Photovoltaïques*', FULLINC). Awarded by *Conseil Region Aquitaine*. Funds for 1 Post-Doc and 1 PhD Fellow. Started 1/11/2012 to last 36 months. **Dr R. C. Hiorns (IPREM, France)**, Dr C. Dagron (IPREM, France); Prof. Thomas Chassé (Partner leader, Inst. f. Physik. u. Theor. Chemie., Eberhard Karls Universität Tübingen, Germany), Dr H. Piesert (EKUT); Dr A. Sutherland (Partner leader, Aston University); Dr Hans-Joachim Egelhaaf (Partner Leader, Konarka OPV GmbH, Germany). **Project awarded 144 000 €.**
- 3 'Fabrication et caractérisation de cellules solaires basées sur des polymères organiques nanostructurés' (NANOSOL), Awarded by CAPES/COFECUB – Campus France. Funds for 2 visiting PhD students per year, and exchange voyages by Supervisors. Started 1/1/2012 to last 24 months. **Dr R. C. Hiorns (Coordinator, IPREM, France)**, Dr D. Bégué (IPREM, France), Dr C. Dagron (IPREM, France); Prof. C. F. O. Graeff (**Coordinator, UNESP, Sao Paulo, Brazil**), Prof. C. Olivetti (UNESP, Sao Paulo, Brazil). **Project awarded ca 45 000 €.**
- 2 'Ensuring Stability in Organic Solar Cells' (Establis), Marie Curie Initial Training Network (ITN), FP7-PEOPLE-2011-ITN-ESTABLIS-290022. 4 Post-doctoral and 11 PhD Fellows, and one European Project Manager. Starting 1/1/2012 to last 48 months. **Dr R. C. Hiorns (Coordinator, France)**; Partner Leaders: Dr A. Rivaton (CNRS-Université Blaise Pascal, Clermont-Ferrand, France); Dr P. D. Topham (Vice-Coordinator, Aston University, UK); Prof. T. Chassé (Eberhard-Karls-Universität Tübingen, Germany); Prof. S. Bauer (Johannes Kepler Universität Linz, Austria); Prof. F. Uherek (International Laser Centre, Slovakia); Prof. L. Lür (Instituto Madrileño de Estudios Avanzados, Spain); Prof. G. Juska (Vilnius University, Lithuania); Dr H.-J. Egelhaaf (Advisor to the Coordinator, Konarka Technologies GmbH, Nürnberg, Germany); Dr S. Tierney (Merck Chemicals Ltd, UK); Dr W. Lövenich (Heraeus Precious Metals GmbH & Co KG, Germany). Director of Training: Dr A. Sutherland (Aston University, UK). Associate Partner Leaders: Dr M. Trocha, Evonik Degussa GmbH, Germany; Dr J. Wecker, Siemens Corporate Technology; Dr. B. Jannon, Amcor. **Project awarded 3 870 292.89 €.**
- 1 'A Brief Guide to Polymer Nomenclature', IUPAC project 2008-032-1-400. Started 1/1/2009 to last 36 months. R. J. Boucher (J. Wiley and Sons, UK), Dr R. Duhlev (Elsevier, UK), Dr K.-H. Hellwich (Germany), Dr R. C. Hiorns (France), Prof. P. Hodge (UK), Prof. A. Jenkins (UK) Prof. R. G. Jones (UK); Prof. C. K. Ober (USA); Prof. D. W. Smith Jr (USA); Prof. J.-P. Vairon; and Prof. J. Vohlidal. **Project awarded 5000 US \$.**

## Project Partner – Grant Awards

- 9 'SuperSolar International and Industrial Engagement Award Visitors' fund, September 2017, coordinated by Dr. A. Sutherland, to visit Aston University, UK for 2 x 2 week stays, **3k€**.
- 8 Organic Photovoltaic Community Scale Installations, TEP-CV 2016 with Communauté de Communes Vic-Montaner (**Coordinator**), and Partners Belectric OPV GmbH (Dr. Ralph Pätzold), and IPREM (UMR 5254, CNRS) (Dr. Roger C. Hiorns), **2.5M€ of which 500 k€ for organic photovoltaic installations.**



Photo: award ceremony for TEP-CV, December 2016. L-R: Dr. R. C. Hiorns, Mme Ségolène Royal (Ministère de l'Environnement, de l'Énergie et de la Mer), M. P. Baylère (President Commission Commission Energie et Développement Durable, Communauté de Communes de Vic-Montaner), M. Jean-Louis Curret (President, Communauté de Communes de Vic-Montaner).

- 7 'Revolutionizing Understanding of Organic Solar Cell Degradation to Design Novel Stable Materials' (SolarRevolution), Marie-Curie Intra-European Fellowship for Career Development, FP7-PEOPLE-2012-IEF-SolarRevolution-331795. 1 Post-doctoral Fellow. Starting 1.05.2013 to last 24 months. Dr. Mike Wykes (**Principal Investigator**), Dr. Johannes Gierschner (**Coordinator**), Dr. Larry Luer, Dr. Begoña Milián-Medina, IMDEA Nanoscience, Madrid, Spain; Dr. Roger C. Hiorns (**Partner Leader**), Dr. Didier Bégué, Dr. Christine Dagron-Lartigau, IPREM (EPCP), UMR-5254, France; Dr. Agnès Rivaton (Partner Leader, Clermont-Ferrand), Dr. Hans-Joachim Egelhaaf (Partner Leader, Belectric OPV). **Project awarded €167 000.**
- 6 'Synthesis and Application of Block Copolymers for Interfacial Stability in Organic Solar Cells' (SYNABCO), FP7-PEOPLE-IEF-SYNABCO-273316, Intra-European Fellowships (IEF) post-doc for 2 years starting 1/9/2011 with Industrial contact with Konarka Technologies GmbH. Participants: Dr Harikrishna Erothu (IEF Fellow, Aston University, UK), Dr Paul Topham (Coordinator, Aston University, UK), **Dr R. C. Hiorns (Partner Leader, IPREM, France)**, Dr Christine Dagron-Lartigau (IPREM, UPPA, France) and Prof. Ahmed Allal (IPREM, UPPA, France). Attained 93.6/100. **Project awarded 209 092 €.**
- 5 'CELLules PHOtovoltaïques Organiques à Couche active Stabilisée', CEPHORCAS, ANR project. Started 1.1.11, to last 4 years. Coordinator, G. Wantz (IPB, Bordeaux), IPREM (EPCP), Christine Dagron-Lartigau (Partner Leader, IPREM, UPPA). **Project awarded ca 750 k€.**
- 4 'Terminology for Chain Polymerizations', IUPAC project 2010-007-1-400, submitted by: Prof. P. Kubisa (Poland), Dr R. C. Hiorns (France), Prof. R. G. Jones (UK), Prof. T Kitayama (Japan), Prof. K. Matyjaszewski (USA), Dr G. Moad (**Coordinator**, Australia), and Prof. G. Russell (New Zealand). **Project awarded 6000 US \$.**
- 3 'Revision of, 'IUPAC Recommendations on Macromolecular Nomenclature – Guide for Authors of Papers and Reports in Polymer Science and Technology'', IUPAC project 2008-020-1-400, submitted by: Prof. K.-H. Hellwich (Germany), Dr R. C. Hiorns (France), Prof. Phil Hodge (**Coordinator**, UK), Prof. J. Kahovec, Prof. R. G. Jones, and Prof. W. Mormann (Germany). **Project**

**awarded 5000 US \$.**

- 2 'Glossary of Terms Relating to Electromagnetic Field-Responsive Polymers', IUPAC project 2006-028-1-400, submitted by: Prof. J. Vohlídal (**Coordinator**, Czech Republic), R. C. Hiorns (France), Prof. R. G. Jones (UK), Prof. C. Ober (USA), Prof. F. Schué (France), and Prof. J. Stejskal (Czech Republic). **Project awarded 6000 US \$.**
- 1 'Fullerene based copolymers for opto-electronic applications', Initiator and Project Assembly for an EGIDE / RSC Franco-British Alliance with Dr S. J. Holder, University of Kent (UK), 2007-2008. **Project awarded 3000 € per participant.**

## Publications

### Peer Reviewed Papers

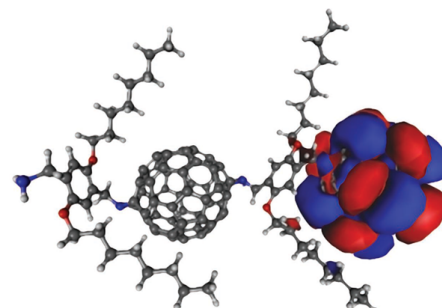
- 67 'Bromomethylation of  $\pi$ -conjugated substrates', H. Santos Silva, H. H. Ramanitra, B. A. Bregadiolli, D. Bégué, C. F. O. Graeff, R. C. Hiorns, *in preparation*.
- 66 'Degradation studies of polyfullerenes for organic photovoltaics', H. Santos Silva, D. Bégué, S. Dowland, H. Peisert, T. Chassé, R. C. Hiorns, *in preparation*.
- 65 'ATRAP extends its reach: PolyPCBM for Organic Photovoltaics', H. H. Ramanitra, S. A. Dowland, B. A. Bregadiolli, H. Santos Silva, D. Bégué, C. F. O. Graeff, Heiko Peisert, T. Chassé, G. Morse, A. Distler, R. C. Hiorns, *in preparation*.
- 64 '[Molecular organization relationship of low-bandgap polymers at the air-water interface and in solid films](#)', V. J. R. De Oliveira, E. A. Da Silva, M. L. Braunger, H. Awada, H. De Santana, R. C. Hiorns, C. Dagon-Lartigau, C. de Almeida Olivati, *Journal of Molecular Liquids*, **2018**, 268, 114-121. DOI: 10.1016/j.molliq.2018.07.018
- 63 '[Langmuir and Langmuir-Schaffer Films of Low-bandgap Polymers](#)', M. L. Braunger, E. A. Silva, H. Awada, H. S. Silva, D. Bégué, R. C. Hiorns, C. Dagon-Lartigau, C. A. Olivati, *Polymer International*, **2018**, 67(8), 1028-1034. DOI: 10.1002/pi.5604
- 62 '[Targeting Ideal Acceptor-Donor Materials Based on Hexabenzocoronene](#)', Hugo Santos Silva, Sebastian Metz, Roger C. Hiorns, Didier Bégué, *Journal of Molecular Structure*, **2018**, 1161, 442-452. DOI: 10.1016/j.molstruc.2018.02.067
- 61 '[The role of donor polymer and PEDOT:PSS formulation on delamination processes in inverted organic solar cells](#)', Alberto Gregori, Aurélien Tournebize, Stefan Schumann, Heiko Peisert, Roger C. Hiorns, Thomas Chassé, Christine Lartigau-Dagon, Ahmed Allal, *Solar Energy Materials & Solar Cells*, **2018**, 174, 25-33. DOI: 10.1016/j.solmat.2017.08.024

- 60 **Front Page** 'Towards the Syntheses of Main-Chain Oligo- and Poly(azafulleroid)s and their Use in Organic Photovoltaic Devices', Bruna A. Bregadiolli, Laura Corcoles, Lauren Kang, Hasina H. Ramanitra, Craig M. S. Combe, Rodrigo Marques Ferreira, Hugo Santos Silva, Didier Bégué, Francisco C. Lavada, Christine Dagrón-Lartigau, Christine K. Luscombe, Clarissa Olivati, Carlos F. O. Graeff, Roger C. Hiorns, *Polymer International*, **2017**, 66, 1364-1371. DOI: 10.1002/pi.5419.



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International**



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- 59 'The Contribution of IUPAC to Polymer Science Education', Chan Chin Han, Christopher M. Fellows, Michael Hess, Roger C. Hiorns, Voravee Hoven, Gregory T. Russell, Cláudio G. dos Santos, Adriana Šturcová, Patrick Theato, *J. Chem. Edu.*, **2017**, 94(11), 1618-1628. DOI: 10.1021/acs.jchemed.6b00800.
- 58 'Main-Chain Poly(fullerene) Multiblock Copolymers as Organic Photovoltaic Donor-Acceptors and Stabilizers', Mahfoudh Raissi, Harikrishna Erothu, Emmanuel Ibarboure, Habiba Bejbouji, Henri Cramail, Eric Cloutet, Laurence Vignau, Roger C. Hiorns, *J. Mater. Chem. A*, **2017**, 5, 7533-7544. DOI: 10.1039/C7TA01980G
- 57 'Suppression of Thermally Induced Fullerene Aggregation in Polyfullerene Based Multi-Acceptor Organic Solar Cells', Simon A. Dowland, Michael Salvador, José Darío Perea, Nicola Gasparini, Stefan Langner, Sambatra Rajoelson, Hasina H. Ramanitra, Benjamin D. Lindner, Andres Osvet, Christoph J. Brabec, Roger C. Hiorns, Hans-Joachim Egelhaaf, *ACS Applied Materials & Interfaces*, **2017**, 9, 10971. DOI: 10.1021/acsami.7b00401
- 56 'Oligo- and Poly(fullerene)s for Photovoltaic Applications: Modelled Electronic Behaviours and Synthesis', Hugo Santos Silva, Hasina H. Ramanitra, Bruna A. Bregadiolli, D. Bégué, Carlos F. O. Graeff, Christine Dagrón-Lartigau, Heiko Peisert, Thomas Chassé, Roger C. Hiorns, *Journal of Polymer Science Part A: Polymer Chemistry*, **2017**, 55, 1345-1355. DOI:10.1002/pola.28502.
- 55 'Main-Chain Fullerene and Dye Oligomers: Towards Alternating Fullerene Polymers for Organic Photovoltaics', Meera Stephen, Simon Dowland, Alberto Gregori, Hasina R. Ramanitra, Hugo Santos Silva, Craig M. S. Combe, Didier Bégué, Christine Dagrón-Lartigau, Kristijonas Genevičius, Kęstutis Arlauskas, Gytis Juška, Andreas Distler, Roger C. Hiorns, *Polymer International*, **2017**, 66, 388-398. DOI: 10.1002/pi.5273.
- 54 'Mini-review: Charge Transport and its Characterisation using Photo-CELIV in Bulk-Heterojunction Solar Cells', Meera Stephen, Kristijonas Genevičius, Gytis Juška, Kestutis

Arlauskas, Roger C. Hiorns, *Polymer International*, **2017**, *66*, 13-25. DOI: 10.1002/pi.5274.

- 53 'Designing intrinsically photostable low band gap polymers: a smart tool combining EPR spectroscopy and DFT calculations', Hugo Santos Silva, Isabel Fraga Domínguez, Anthony Perthué, Paul D. Topham, Pierre-Olivier Bussière, Roger C. Hiorns, Christian Lombard, Agnès Rivaton, Didier Bégué, Brigitte Pépin-Donat, *J. Mater. Chem. A.*, **2016**, *4*, 15647-15654. DOI: 10.1039/C6TA05455B.
- 52 'Increased Thermal Stabilization of Polymer Photovoltaic Cells with Oligomeric PCBM', Hasina H. Ramanitra, Simon A. Dowland, Bruna A. Bregadiolli, Michael Salvador, Hugo Santos Silva, Didier Bégué, Carlos F. O. Graeff, Heiko Peisert, Thomas Chassé, Sambatra Rajoelson, Andres Osvet, Christoph J. Brabec, Hans-Joachim Egelhaaf, Graham E. Morse, Andreas Distler, Roger C. Hiorns, *J. Mater. Chem. C.*, **2016**, *4*, 8121-8129. DOI: 10.1039/C6TC03290G
- 51 'Sterically Controlled Azomethine Ylide Cycloaddition Polymerization of Phenyl-C<sub>61</sub>-butyric Acid Methyl Ester', Meera Stephen, Hasina H. Ramanitra, Hugo Santos Silva, Simon A. Dowland, Didier Bégué, Kristijonas Genevičius, Kęstutis Arlauskas, Gytis Juška, Graham E. Morse, Andreas Distler, Roger C. Hiorns, *Chem. Comm.*, **2016**, *52*, 6107-6110. DOI: 10.1039/C6CC01380E.
- 50 'Synthesis of Main-chain Poly(fullerene)s from a Sterically Controlled Azomethine Ylide Cycloaddition Polymerization', Hasina H. Ramanitra, Hugo Santos Silva, Bruna A. Bregadiolli, Abdel Khoukh, Craig. M. S. Combe, Simon A. Dowland, Didier Bégué, Carlos F. O. Graeff, Christine Dagon-Lartigau, Andreas Distler, Graham Morse, Roger C. Hiorns, *Macromolecules*, **2016**, *49*(5), 1681-1691. DOI: /10.1021/acs.macromol.5b02793.
- 49 'Graphene-based acceptor molecules for organic photovoltaic cells: a predictive study identifying high modularity and morphological stability', D. Bégué, E. Guille, S. Metz, M.-A, Arnaud, H. Santos-Silva, M. Seck, P. Fayon, C. Dagon-Lartigau, P. Iratçabal, R. C. Hiorns, *RSC Advances*, **2016**, *6*, 13653-13656. DOI: 10.1039/C5RA25531G
- 48 'Correlating geometry of multidimensional carbon allotropes molecules and stability', Hugo Santos Silva, Jacky Cresson, Agnès Rivaton, Didier Bégué, Roger C. Hiorns, *Organic Electronics*, **2015**, *26*, 395-399. DOI: 10.1016/j.orgel.2015.08.004.
- 47 'Fullerene-capped Copolymers for Bulk Heterojunctions: Device Stability and Efficiency Improvements', M. Raïssi, H. Erothu, E. Ibarboure, H. Cramail, L. Vignau, E. Cloutet, R. C. Hiorns, *J. Mater. Chem. A.*, **2015**, *3*, 18207-18221. DOI: 10.1039/C5TA02705E
- 46 'Terminology and nomenclature: a prerequisite or nuisance for polymer science education?', R. C. Hiorns, *Macromolecular Symposia*, **2015**, *355*(1), 13-19.
- 45 'Synthesis, Thermal Processing and Thin Film Morphology of Poly(3-Hexylthiophene)-Poly(Styrene Sulfonate) Block Copolymers', H. Erothu, J. Kolomanska, P. Johnston, S. Schumann, D. Deribew, D. T. W. Toolan, A. Gregori, C. Dagon-Lartigau, G. Portale, W. Bras,

T. Arnold, A. Distler, R. C. Hiorns, P. Mokarian-Tabari, T. W. Collins, J. R. Howse, P. D. Topham, *Macromolecules*, **2015**, *48*, 2107-2117.

- 44 'Is there a photostable conjugated polymer for efficient solar cells?' A. Tournebize, J.-L. Gardette, C. Taviot-Guého, D. Bégué, M. A. Arnaud, C. Dagron-Lartigau, H. Medlej, R. C. Hiorns, S. Beaupré, M. Leclerc, A. Rivaton, *Polymer Degradation and Stability*, **2015**, *112*, 175-184.
- 43 'A universal route to improving conjugated macromolecule photostability', H. Santos Silva, A. Tournebize, D. Bégué, H. Peisert, T. Chasse, J.-L. Gardette, S. Therias, A. Rivaton, R. C. Hiorns, *RSC Advances*, **2014**, *4*, 54919-54923.
- 42 'Conjugated-Polymer Grafting on Inorganic and Organic Substrates: A New Trend in Organic Electronic Materials', H. Awada, A. Bousquet, R. C. Hiorns, C. Dagron-Lartigau, L. Billon, *Progress in Polymer Science*, **2014**, *39*, 1847-1877.
- 41 'Editorial: Organic electronics and eternal youth', R. C. Hiorns, A. Moliton, *Polymer International*, **2014**, *63*(8), 1333-1335.
- 40 'Versatile Functional Poly(3-hexylthiophene) for Hybrid Particles Synthesis by the Grafting Onto Technique: Core@Shell ZnO Nanorods', H. Awada, H. Medlej, S. Blanc, M.-H. Delville, R. C. Hiorns, A. Bousquet, C. Dagron-Lartigau, L. Billon, *Journal of Polymer Science Part A: Polymer Chemistry*, **2014**, *52*(1), 30-38.
- 39 'New insights into the mechanisms of photo-degradation / stabilization of P3HT:PCBM active layers using poly(3-hexyl-*d*<sub>13</sub>-thiophene)', A. Tournebize, P.-O. Bussiere, A. Rivaton, J.-L. Gardette, H. Medlej, R. C. Hiorns, C. Dagron-Lartigau, F. C. Krebs, K. Norrman, *Chemistry of Materials*, **2013**, *25*(22), 4522-4528.
- 38 'Effect of spacer insertion in a commonly used dithienosilole/benzothiadiazole-based low band gap copolymer for polymer solar cells', H. Medlej, H. Awada, M. Abbas, G. Wantz, A. Bousquet, E. Grelet, K. Hariri, T. Hamieh, R. C. Hiorns, and C. Dagron-Lartigau, *European Polymer Journal*, **2013**, *49*(12), 4176-4188.
- 37 'Enhanced thermal stability of organic solar cells by using photolinkable end-capped polythiophenes', S. Khiev, L. Derue, G. Ayenew, H. Medlej, R. Brown, L. Rubatat, R. C. Hiorns, G. Wantz, C. Dagron-Lartigau, *Polymer Chemistry*, **2013**, *4*, 4145-4150.
- 36 'Facile synthesis of poly(3-hexylthiophene)-block-poly(ethylene oxide) copolymers via Steglich esterification', H. Erothu, A. A. Sohdi, A. C. Kumar, A. J. Sutherland, C. Dagron-Lartigau, A. Allal, R. C. Hiorns, P. D. Topham, *Polymer Chemistry*, **2013**, *4*, 3652-3655.
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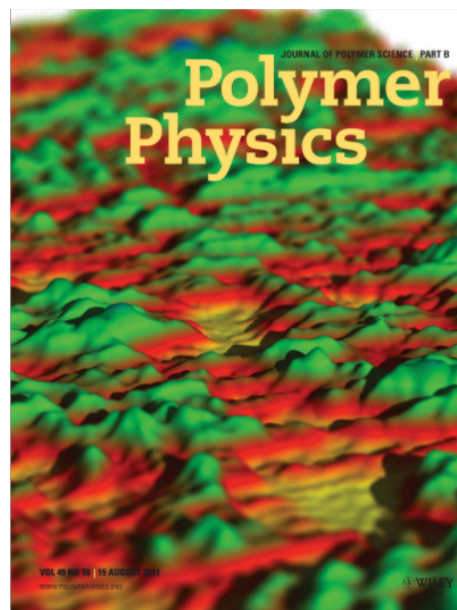
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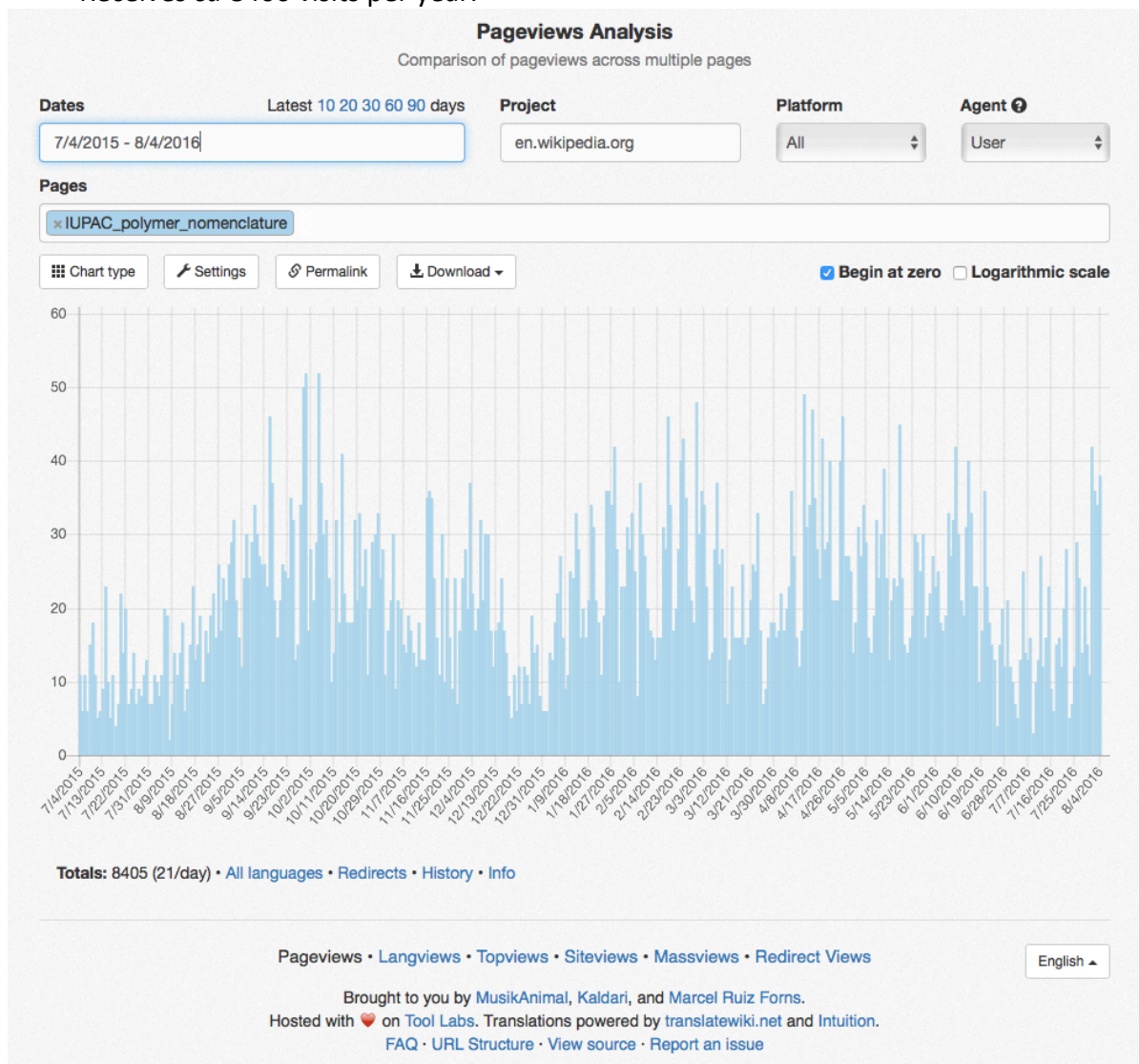
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## Invited Lectures at International Conferences

- 20 'Poly(fullerene)s for Organic Solar Cells', B. A. Bregadiolli, M. Stephen, H. H. Ramanitra, S. Dowland, H. Santos Silva, M. Raïssi, D. Bégué, C. F. O. Graeff, M. Salvador, H. Peisert, S. Rajoelson, A. Osvet, H.-J. Egelhaaf, C. J. Brabec, K. Genevičius, K. Arlauskas, G. Juška, T. Chassé, G. E. Morse, A. Distler, H. Erothu, E. Ibarboure, H. Bejbouji, C. Dagrón-Lartigau, R. C.

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- 19** 'Linear Chains from Round Monomers for Photovoltaics', B. A. Bregadiolli, M. Stephen, H. H. Ramanitra, S. Dowland, H. Santos Silva, M. Raïssi, D. Bégué, C. F. O. Graeff, M. Salvador, H. Peisert, S. Rajoelson, A. Osvet, H.-J. Egelhaaf, C. J. Brabec, K. Genevičius, K. Arlauskas, G. Juška, T. Chassé, G. E. Morse, A. Distler, H. Erothu, E. Ibarboure, H. Bejbouji, H. Cramail, E. Cloutet, L. Vignau, C. Dagron-Lartigau, R. C. Hiorns, XVI Brazil MRS Meeting, Gramado, Brazil, September **2017**.
- 18** 'Integrating Organic Photovoltaics Into Public Places', N. de Palma, H. Issa, P. Baylère, J. L. Curret, R. C. Hiorns, 100% Renewable Energy, Flensburg, Germany, October **2016**.
- 17** 'Linear Polymers from Spherical Monomers; a Game of Two Halves', B. A. Bregadiolli, M. Stephen, H. H. Ramanitra, S. Dowland, H. Santos Silva, D. Bégué, M. Salvador, H. Peisert, C. Dagron-Lartigau, S. Rajoelson, A. Osvet, H.-J. Egelhaaf, C. J. Brabec, C. Olivati, K. Genevičius, K. Arlauskas, G. Juška, T. Chassé, G. E. Morse, A. Distler, C. F. O. Graeff, R. C. Hiorns, XV Brazil MRS Meeting, Campinas, Brazil, September **2016**.
- 16** 'Stabilizing Organic Photovoltaic Devices Against Thermal Degradation with Poly(fullerene)s', H. H. Ramanitra, B. A. Bregadiolli, M. Stephen, S. Dowland, H. Santos Silva, D. Bégué, M. Salvador, C. Dagron-Lartigau, S. Rajoelson, A. Osvet, H.-J. Egelhaaf, C. J. Brabec, C. Olivati, K. Genevičius, K. Arlauskas, G. Juška, G. E. Morse, A. Distler, P. Baylère, H. Issa, C. F. O. Graeff, R. C. Hiorns, XV Brazil MRS Meeting, Campinas, Brazil, September **2016**.
- 15** 'A General Overview of the Structure of and Results from the European ITN "Ensuring stability in organic solar cells" (ESTABLIS) Project', I. Fraga Dominguez, A. Gregori, A. Isakova, S. Karuthedath, J. Kolomanska, O. Kozlova, H. H. Ramanitra, M. Seck, H. Santos Silva, M. Stephen, I. Topolniak, A. Tournebize, B. A. Bregadiolli, T. Sauermann, C. M. Combe, D. Deribew, S. Dowland, A. Allal, K. Arlauskas, S. Bauer-Gogonea, D. Bégué, P.-O. Bussière, J. C. Gonzalez, A. Elschner, D. Hasko, L. Gardette, K. Genevičius, J. Gierschner, H. Peisert, A. Satka, R. Schwoedlauer, S. Schumann, S. Thèrias, R. Wannemacher, A. Vincze, S. Bauer, C. J. Brabec, D. Gaiser, C. F. O. Graeff, A. Osvet, S. Rajoelson, M. Salvador, N. Blouin, T. Chassé, G. Juska, W. Lövenich, G. E. Morse, S. Tierney, F. Uherek, C. Dagron-Lartigau, A. Distler, H.-J. Egelhaaf, L. Lürer, A. Rivaton, M. Pédeutour, A. J. Sutherland, P. Topham, R. C. Hiorns, Workshop on Lifetime and Stability of Hybrid and Organic Devices, Université Pierre et Marie Curie (Sorbonne Universities), Paris, France, 21-22 April **2016**. <http://thinfacew2016.sciencesconf.org>
- 14** 'Community-Scale Organic Photovoltaics', Patrick Baylère, Hermann Issa, Roger C. Hiorns, SU2P 7<sup>th</sup> Annual Symposium, Edinburgh, April **2016**.  
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- 12 'ATRAP as a Route to PolyPCBM... and Stabilising Organic Photovoltaic Devices', H. H. Ramanitra, S. A. Dowland, H. Santos Silva, C. M. Combe, D. Bégué, C. Dagron-Lartigau, Graham Morse, A. Distler, R. C. Hiorns, 7<sup>th</sup> International Symposium on Engineering Plastics, Xining, China, August **2015**.
- 11 'Using fullerene as a monomer and stabilizing organic solar cells', H. H. Ramanitra, H. Santos Silva, A. Tournebize, C. M. Combe, D. Bégué, H. Peisert, T. Chassé, J.-L. Gardette, S. Thérias, A. Rivaton, C. Dagron-Lartigau, R. C. Hiorns, The 3<sup>rd</sup> KIT International Symposium on Advanced Polymer Materials and Fiber Science, Kyoto, Japan, February **2015**.
- 10 'Polyfullerenes for photovoltaics', H. H. Ramanitra, B. Bregadiolli, R. Marques Ferreira, H. Santos Silva, C. M. Combe, D. Bégué, F. C. Lavarda, C. Dagron-Lartigau, C. F. O. Graeff, R. C. Hiorns, EMN Meeting on Polymers, Energy Materials and Nanotechnology, Orlando, Florida, USA, January **2015**.
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- 8 'Nomenclature and Terminology: prerequisite or nuisance for polymer science education?', R. C. Hiorns, IUPAC Macro 2014, Chiang Mai, Thailand, July **2014**.
- 7 'Multi-scale molecular modeling applied to design and performance increase of organic materials for electronics applications' H. Santos Silva,\* M. Arnaud, D. Bégué, Isabelle Baraille, C. Dagron-Lartigau, and R. C. Hiorns ICCMSE 2014, in Athens, Greece, **April 2014**.
- 6 'Using Fullerene as a Comonomer for Organic Photovoltaic Applications', H. Santos Silva, H. H. Ramanitra, D. Bégué, C. Dagron-Lartigau, R. C. Hiorns\*, 6<sup>th</sup> International Symposium on Engineering Plastics, Xiamen, China, August **2013**.
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- 2 'Caves and self-assembly', R. J. Hiorns\* and R. C. Hiorns\*, In the conference, "Caves", King's College London, UK, 17<sup>th</sup> February **2011**.
- 1 'Fullerene and morphology: polymers for photovoltaics,' R. C. Hiorns\*, in a special satellite meeting 'Organic and Polymer Solar Cells' to PPC11, Cairns, Australia, 8<sup>th</sup> December **2009**.

## Invited Lectures at National Conferences

- 1 'Organic Photovoltaic Installations in Adour-Madiran', Patrick Baylère, Tobias Sauermann, Hermann Issa, Roger C. Hiorns, Journées annuelles OERA, IUT Aix Marseille, Aix-en-Provence, October **2018**.

## Invited Seminars

- 29 'Basic Introduction to Piezoelectricity and Polymers,' Deuber L. S. Agostini and Roger C. Hiorns, Universidade Estadual Paulista Júlio de Mesquita Filho (UNESP), Presidente Prudente, Sao Paulo, Brazil, September **2018**.
- 28 'Polymerising C60 and PCBM for Photovoltaics,' Roger C. Hiorns, Universidade Estadual Paulista Júlio de Mesquita Filho (UNESP), Presidente Prudente, Sao Paulo, Brazil, September **2018**.
- 27 'Polymer Nomenclature and Terminology – all you didn't want to know about naming polymers,' Roger C. Hiorns, Universidade Estadual Paulista Júlio de Mesquita Filho (UNESP), Presidente Prudente, Sao Paulo, Brazil, September **2017**.  
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- 26 'Fullerene-based polymers for organic photovoltaics,' Roger C. Hiorns, Universidade Estadual Paulista Júlio de Mesquita Filho (UNESP), Presidente Prudente, Sao Paulo, Brazil, September **2017**.
- 25 'Integrating Organic Photovoltaics into Public Places', Nicolas de Palma, Hermann Issa, Patrick Baylère, Jean Louis Curret, Roger C. Hiorns, University of Auckland, February **2017**.
- 24 'Making Chains from Balls—Polymers for Organic Photovoltaics; and Community Scale OPV installations', M. Stephen, H. H. Ramanitra, H. Santos Silva, D. Bégué, C. Dagron-Lartigau, K. Genevičius, K. Arlauskas, G. Juška, H. Issa, P. Baylère, R. C. Hiorns, Mads Clausen Institut, Sønderborg, Denmark, October, **2016**.
- 23 'A General Overview of the Structure of and Results from the European ITN "Ensuring stability in organic solar cells" (ESTABLIS) Project', R. C. Hiorns, Centre de Recherche Paul Pascal, Bordeaux, France, September **2016**.
- 22 'Community-Scale Organic Photovoltaics', Patrick Baylère, Hermann Issa, Roger C. Hiorns, Ross Priory, University of Strathclyde, February **2016**.
- 21 'A Thankfully Brief Guide to IUPAC Polymer Nomenclature,' Roger C. Hiorns, Universidade Estadual Paulista Júlio de Mesquita Filho (UNESP), Presidente Prudente, Sao Paulo, Brazil, September **2015**.
- 20 'It's ATRAP! Stabilising Organic Photovoltaic Cells', TN-ESTABLIS-290022, Ensuring Stability in Organic Solar Cells,' Hasina H. Ramanitra, Hugo Santos Silva, Craig M. Combe, Simon



Dowland, Didier Bégué, Christine Dagron-Lartigau, Heiko Peisert, Thomas Chassé, Jean-Louis Gardette, Sandrine Thérias, Agnès Rivaton, Graham Morse, Andreas Distler, Roger C. Hiorns, Universidade Estadual Paulista Júlio de Mesquita Filho (UNESP), Presidente Prudente, Sao Paulo, Brazil, September **2015**.

- 19 'ITN-ESTABLIS-290022, Ensuring Stability in Organic Solar Cells,' Mélanie Pédeutour, Roger C. Hiorns, Universidade Estadual Paulista Júlio de Mesquita Filho (UNESP), Presidente Prudente, Sao Paulo, Brazil, September **2015**.
- 18 'Managing FP7-PEOPLE-2011, ITN-ESTABLIS-290022, Ensuring Stability in Organic Solar Cells,' For ITN-INFORM-2014, Coordinated by Imperial College London, October **2015**.
- 17 'Some advances in polyfullerenes and the stabilization of polymer-based organic photovoltaic cells', H. Santos Silva, H. H. Ramanitra, A. Tournebize, C. M. Combe, D. Bégué, H. Peisert, T. Chassé, J.-L. Gardette, S. Thérias, A. Rivaton, C. Dagron-Lartigau, R. C. Hiorns, University of North Carolina at Charlotte, Orlando, Florida, USA, January **2015**.
- 16 'Polyfullerenes and stabilizing polymer-based organic photovoltaic cells', H. H. Ramanitra, H. Santos Silva, A. Tournebize, D. Bégué, H. Peisert, T. Chassé, J.-L. Gardette, S. Thérias, A. Rivaton, C. Dagron-Lartigau, R. C. Hiorns\*, Imperial College London, December **2014**.
- 15 'Coordinating a Marie-Curie ITN programme', R. C. Hiorns, Horizon 2020, Université de Pau et des Pays de l'Adour, France, December **2013**.
- 14 'Polymers for organic photovoltaic cells', C. Dagron-Lartigau\*, F. Ouhib, H. Medlej, H. Awada, S. Khiev, L. Billon, A. Bousquet, R. C. Hiorns, UNESP – Bauru, Brazil, August **2013**.
- 13 'Making Polymers from Fullerene for Photovoltaics', E. Dupeu, C. Dagron-Lartigau, R. C. Hiorns\*, Eberhard Karls Universität Tübingen, Tübingen, Germany, February **2013**.
- 12 'Making Polymers from Fullerene for Photovoltaics', E. Dupeu, C. Dagron-Lartigau, R. C. Hiorns\*, IMDEA, Madrid, Spain, December **2012**.
- 11 'Fullerene-based Polymer for Photovoltaic Devices', E. Dupeu, C. Dagron-Lartigau, R. C. Hiorns\*, UNESP, Presidente Prudente, Sao Paulo, Brazil, October **2012**.
- 10 'A Personal Brief Introduction to Polymer Nomenclature', R. C. Hiorns\*, UNESP, Bauru, Sao Paulo, Brazil, October **2012**.
- 9 'Fullerene-based Polymer for Photovoltaic Devices', E. Dupeu, C. Dagron-Lartigau, R. C. Hiorns\*, UNESP, Bauru, Sao Paulo, Brazil, October **2012**.
- 8 'Polymers as Active Layers in Organic Solar Cells and the Incorporation of Polyfullerenes', R. C. Hiorns\*, Aston University, UK, 30<sup>th</sup> April **2010**.
- 7 'Organic solar cells and fullerene: making wires (and lamellae) from spheres,' R. C. Hiorns\*, Université Blaise Pascal, Clermont-Ferrand, France, 10<sup>th</sup> March **2010**.
- 6 '[Self-Assembly](#)', R. J. Hiorns\* and R. C. Hiorns\*, A joint lecture on the use of material self-organisation in art and in science.  
R. J. Hiorns <http://www.artangel.org.uk>  
R. C. Hiorns <http://iprem-epcp.univ-pau.fr/live/personnel/HIORNS>

Imperial College London, UK, 21<sup>st</sup> January **2010**.

- 5 'Towards Cheap Solar Cells', R. C. Hiorns\*, CRPP, Université de Bordeaux, France, 17<sup>th</sup> of June **2009**.
- 4 'Block copolymers containing conjugated segments', R. C. Hiorns\*, Ecole Nationale Supérieure de Chimie et de Physique de Bordeaux, France, 14<sup>th</sup> of December **2006**.
- 3 'An ordered approach to photovoltaic cells', R. C. Hiorns\*, Linz Institute of Organic Solar Cells (LIOS), Johannes Kepler University Linz, Austria, 24<sup>th</sup> of October **2006**.
- 2 'A general introduction to polymer based photovoltaics', R. C. Hiorns\*, F. Ouhib, A Khoukh, J. Leroy, M. Firon, B. Gourdet, R. De Bettignies, S. Baily, C. Sentein, C. Dagron-Lartigau, University of Kent at Canterbury, UK, 7<sup>th</sup> of April **2006**.
- 1 'Self-assembly of multi-block copolymers containing conjugated segments—a route to well ordered systems?', R. C. Hiorns\*, H. Martinez, C. Dagron-Lartigau, J. François, CEA, Grenoble, France, 28<sup>th</sup> of October **2003**.



## Conference Presentations by Peer Review

- 41 'Linear Polymers from Round Monomers: Polymerising C<sub>60</sub> and PCBM for Photovoltaics', M. Stephen, H. H. Ramanitra, S. Dowland, H. Santos Silva, B. A. Bregadiolli, D. Bégué, C. F. O. Graeff, M. Salvador, H. Peisert, C. Dagron-Lartigau, S. Rajoelson, A. Osvet, H.-J. Egelhaaf, C. J. Brabec, K. Genevičius, K. Arlauskas, G. Juška, T. Chassé, G. E. Morse, A. Distler, R. C. Hiorns, AMN-8, Queenstown, New Zealand, February **2017**.
- 40 'PolyPCBM: Polyfullerenes for Organic Photovoltaic Cells', H. H. Ramanitra, H. Santos Silva, S. Dowland, D. Bégué, H. Peisert, T. Chassé, J.-L. Gardette, S. Thérias, A. Rivaton, C. Dagron-Lartigau, G. Morse, A. Distler, R. C. Hiorns, XIV Brazil MRS Meeting, 8<sup>th</sup> International Summit on Organic and Hybrid Solar Cells Stability (ISOS-8), Rio de Janeiro, September/October **2015**.
- 39 'Charge transfer process in grafted organic-inorganic systems', B. A. Bregadiolli, H. Awada, O. N. Neto, C. Dagron-Lartigau, L. Billon, A. Bousquet, R. C. Hiorns, F. E. G. Guimarães, C. F. O. Graeff, XIV Encontro da SBPMat Rio de Janeiro, Brazil, September, **2015**.
- 38 'Synthesis and characterization of macromolecular azafulleroids thin films for applications in organic solar cells', B. Bregadiolli, R. Marques Ferreira, F. C. Lavarda, C. Dagron-Lartigau, C. F. O. Graeff, R. C. Hiorns, RSC ISACS17 Challenges in Chemical Renewable Energy, Rio de Janeiro, September **2015**.
- 37 'Identification of the weakest mechanical point in OPV devices', A. Tournebize, A. Gregori, S. Schumann, A. Elschner, C. Dagron-Lartigau, R. C. Hiorns, A. Allal, H. Peisert, T. Chassé, DPG Spring Meeting, Berlin, Germany, March **2015**.

- 36** 'Polyfullerenes for photovoltaics', H. H. Ramanitra, B. Bregadiolli, R. Marques Ferreira, C. M. Combe, H. Santos Silva, D. Bégué, F. C. Lavarda, C. Dagrón-Lartigau, C. F. O. Graeff, R. C. Hiorns, Advanced Materials and Nanotechnology AMN7, Nelson, New Zealand, February **2015**.
- 35** 'Delamination in OPV Devices: A New Technique to Identify the Weakest Mechanical Point,' A. Gregori, S. Schumann, A. Tournebize, H. Peisert, T. Chassé, C. Dagrón-Lartigau, R. C. Hiorns, A. Allal, ISOS-7, Barcelona, Spain, September **2014**.
- 34** 'Is there any photostable conjugated polymer for efficient solar cells?', A. Rivaton, A. Tournebize, J.-L. Gardette, C. Taviot-Gueho, D. Bégué, M. Alexandre, C. Dagrón-Lartigau, H. Medlej, R. C. Hiorns, S. Beaupré, M. Leclerc, MoDeST2014, Portoroz, Slovakia, August/September **2014**.
- 33** 'Incorporation of Fullerene into Polymers for Photovoltaic Applications', Hasina H. Ramanitra, C. M. Combe, H. Santos Silva, D. Bégué, C. Dagrón-Lartigau, and Roger C. Hiorns, IUPAC Macro2014, Chiang Mai, July **2014**.
- 32** 'Synthesis of macromolecular azafulleroids for inverted solar cells', B. Bregadiollic, C. M. Combe, R. M. Ferreira, H. Santos Silva, H. H. Ramanitra, D. Bégué, F. C. Lavarda, C. Dagrón-Lartigau, C. F. O. Graeff, R. C. Hiorns, E-MRS Spring meeting, Lille, France, May **2014**.
- 31** 'Fullerene as a monomer', E. Dupeu, C. Dagrón-Lartigau, R. C. Hiorns, IUPAC-MACRO 2012, Virginia Tech, USA, June **2012**.
- 30** 'Incorporating fullerene into the back-bone of a block copolymer for a photovoltaic device', R. C. Hiorns, D. Bégué, P. Iratçabal, C. Dagrón-Lartigau, E. Cloutet, E. Ibarboure, H. Cramail, L. Vignes, N. Lemaitre, S. Guillerez, IUPAC-MACRO 2010, Glasgow, July **2010**.
- 29** Flash presentation, 'Main-chain fullerene polymers for photovoltaics', R. C. Hiorns, E. Cloutet, E. Ibarboure, L. Vignau, N. Lemaitre, S. Guillerez, C. Absalon, H. Cramail, 42<sup>nd</sup> IUPAC World Chemistry Conference, Glasgow UK, August **2009**.
- 28** 'Electronically active block copolymers', A. de Cuendias, M. Le Hellaye, E. Cloutet, M. Urien, S. Lecommandoux, R. C. Hiorns, E. Ibarboure, L. Vignau, N. Lemaitre, S. Guillerez, H. Cramail, 42<sup>nd</sup> IUPAC World Conference, Glasgow UK, August **2009**.
- 27** 'Photovoltaic solar cells based on rod-coil block copolymers containing poly(3-hexylthiophene) and fullerene', E. Cloutet, M. Urien, R. C. Hiorns, H. Erothu, H. Cramail, L. Vignau, Hybrid and Organic Photovoltaics Conference (HOPV9), Benidorm, Spain, May **2009**.
- 26** 'Main-chain fullerene polymers for photovoltaic devices', R. C. Hiorns, E. Cloutet, E. Ibarboure, L. Vignau, S. Guillerez N. Lemaitre, H. Cramail, Hybrid and Organic Photovoltaics Conference (HOPV9), Benidorm, Spain, May **2009**.
- 25** 'Synthesis of Poly(3-hexylthiophene) Based Copolymers for Organic Photovoltaic Cells', H. Erothu, M. Urien, R. C. Hiorns, E. Cloutet, H. Cramail, GFP Sud-Ouest, Gers, February **2009**.
- 24** 'Main-chain fullerene polymers for photovoltaic devices', R. C. Hiorns, E. Cloutet, E. Ibarboure, L. Vignau, S. Guillerez N. Lemaitre, H. Cramail, Polymères et Photovoltaïque, Bordeaux, October **2008**.
- 23** 'Design of polythiophene derivatives for organic solar cells', G. Depuis, F. Ouhib, R. C. Hiorns, S. Bailly, R. de Bettignies, H. Martinez, J. Desbrières, C. Dagrón-Lartigau, Polymères et Photovoltaïque, Bordeaux, October **2008**.

- 22 Through winning a poster prize (see poster number 24), 'Main-chain fullerene polymers for photovoltaic devices', R. C. Hiorns, E. Cloutet, E. Ibarboure, L. Vignau, S. Guillerez N. Lemaitre, H. Cramail, Excitonic Solar Cell Conference, Warwick, UK, September 2008.
- 21 'Main-chain fullerene oligomers for photovoltaic devices', R. C. Hiorns, E. Cloutet, E. Ibarboure, L. Vignau, S. Guillerez N. Lemaitre, H. Cramail, Fπ8, Austria, July 2008.
- 20 'Synthesis of poly(3-hexylthiophene)-grafted polyacetylene for organic photovoltaic cells', H. Erothu, R. C. Hiorns, E. Cloutet, H. Cramail, ICOMC, France, 2008.
- 19 'Main-chain fullerene oligomers for photovoltaic devices', R. C. Hiorns, E. Cloutet, E. Ibarboure, H. Cramail, L. Vignau, J.-P. Parneix, N. Lemaitre, Polymers at Frontiers of Science and Technology, IUPAC Macro 2008 World Congress, Taiwan, July 2008.
- 18 'Regioregular polythiophene copolymers for organic solar cells', F. Ouhib, G. Dupuis, R. C. Hiorns, R. de Bettignies, S. Bailly, H. Martinez, J. Desbrières, C. Dagron-Lartigau, 3<sup>rd</sup> International Symposium Technologies for Polymer Electronics - TPE 08, Rudolstadt, Germany, May 2008.
- 17 'Photovoltaic solar cells based on rod-coil block copolymers containing poly(3-hexylthiophene) and fullerene', M. Urien, E. Cloutet, L. Vignau, G. Wantz, R.C. Hiorns, H. Cramail, J.P. Parneix, International Conference on Science and Technology of Synthetic Metals, Pernambuco, Brazil, July 2008.
- 16 'Synthèse des dérivés de polythiophene pour l'élaboration de cellules photovoltaïques organiques', F. Ouhib, R. C. Hiorns, C. Dagron-Lartigau, J. Desbrières, S. Bailly, R. de Bettignies, 34<sup>ème</sup> Journées d'étude des Polymères, Loreint, France, October 2006.
- 15 'Polydispersities and annealing temperatures in the optimisation of bulk heterojunction photovoltaic cells based on poly(3-alkylthiophene)s', R. C. Hiorns, R. de Bettignies, A. Khoukh, J. Leroy, S. Baily, M. Firon, C. Sentein, C. Dagron-Lartigau, Macro 2006 World Polymer Congress, Rio de Janeiro, Brazil, July 2006.
- 14 'Poly(3-alkylthiophene)s and copolymers with fullerene for photovoltaic applications', R. C. Hiorns, A. Khoukh, J. Leroy, R. de Bettignies, S. Baily, H. Martinez, M. Firon, C. Sentein, C. Dagron-Lartigau, Technologies for Polymer Electronics, Rudolstadt, Germany, May 2006.
- 13 'New copolymers based on poly(3-alkylthiophene) and fullerene for photovoltaic applications', R. C. Hiorns, A. Khoukh, H. Preud'homme, J. Leroy, R. de Bettignies, M. Firon, C. Sentein, C. Dagron-Lartigau, ERPOS, Corsica, July 2005.
- 12 'Nouveaux copolymères électroluminescents : polystyrènes greffés avec des dérivés poly(arylène vinylène)', A. Lateulade, C. Lartigau, R. C. Hiorns, J. François, IXemes Journées Polymères Conducteurs, Angers, France, 2001.
- 11 'Experimental and theoretical overview of miscellization and phase separation of hydrophobically end-capped poly(oxyethylene)', E. Beaudoin, R. C. Hiorns, O. Borisov, J. François, International Symposium on Amphiphilic Polymers and Gels, Sintra, Portugal, January 2001.
- 10 'Adsorption of hydrophobically modified poly(ethylene oxide) on latex particles: a structural study', E. Beaudoin, A. Lapp, R. C. Hiorns, J. François, International Symposium on Amphiphilic Polymers and Gels, Sintra, Portugal, January 2001.
- 9 ' $C_{60}$ (polystyrene-*block*-poly(1,4-phenylene))<sub>6</sub> and  $C_{60}$ (poly(poly1,4-phenylene)-*block*-

- polystyrene)<sub>6</sub>—hedgehog copolymers', E. Mignard, R. C. Hiorns, C. Lartigau, C. Mathis, B. François, 38<sup>th</sup> Macromolecular IUPAC Symposium, Poland, July **2000**.
- 8 'Block and graft copolymers with poly(methylphenylsilane) as the core component', R. C. Hiorns, S. J. Holder, L. Lutsen, J. Parker, R. G. Jones, Symposium on Organosilicon Polymers Science, Łódź, Poland, **2000**.
  - 7 'Graft and block copolymers with a poly(methylphenylsilane) core', R. C. Hiorns, S. J. Holder, L. Lutsen, J. Parker, R. G. Jones, Rasuvaev Memorial Symposium, Organometallic Compounds—Materials of 3rd Millennium, Russia, May **2000**.
  - 6 'Manipulating the properties of polysilanes: controlling self-assembly and conformation', S. J. Holder, N. Rossi, V. Dellaportas, R. G. Jones, R. C. Hiorns, N. A. J. M. Sommerdijk, R. J. M. Nolte, 33<sup>rd</sup> Symposium, Organosilicon Chemistry, USA, April **2000**.
  - 5 'Supramolecular structures from an amphiphilic polysilane-based block copolymer', NAJM Sommerdijk, S. J. Holder, R. C. Hiorns, R. G. Jones, R. J. M. Nolte, Abstracts of papers of the American Chemical Society, **1999**, 217(2), 45.
  - 4 'Supramolecular structures from an amphiphilic polysilane-based block copolymer', NAJM Sommerdijk, S. J. Holder,\* R. C. Hiorns, R. G. Jones, R. J. M. Nolte, *Polym. Mater. Sci. Eng.* **1999**, 80, 29.
  - 3 'Supramolecular structures from an amphiphilic polysilane-based block copolymer', N. A. J. M. Sommerdijk, R. C. Hiorns, S. J. Holder, R. G. Jones, R. J. M. Nolte, Liquid Crystal Meeting, Nijmegen, April **1999**.
  - 2 'New polysilylene-vinyl block and graft copolymers', F. Schué, R. C. Hiorns, S. J. Holder, L. Lutsen, J. Parker, R. G. Jones, International Symposium on Ionic Polymerisation, Paris, July **1997**.
  - 1 'Syntheses of polysilylene-vinyl block and graft copolymers', R. C. Hiorns, S. J. Holder, L. Lutsen, J. Parker, R. G. Jones, 2<sup>nd</sup> International Symposium on Silicon-Based Polymers, Tokyo, Japan, June **1997**.

## Poster Presentations by Peer Review

- 44 'Caracterização 'Altering the optoelectronic properties of conjugated polymers using convective self-assembly', Otto Todor-Boer, Ioan Petrovai, Raluca Tarcan, Leontin David, Simion Astilean, Roger C. Hiorns, Natalie Stingelin, Ioan Botiz, Bordeaux Polymer Conference, France **2018**.
- 44 'Caracterização do polímero low bandgap PCPDTBT para aplicação como camada ativa em dispositivos fotovoltaicos orgânicos', Vinicius Jessé Rodrigues de Oliveira, Maria L. Braunger, Roger C. Hiorns, Christine Dagrón Lartigau, Clarissa de Almeida Olivati, 14<sup>th</sup> Congresso Brasileiro de Polímeros, Brazil, October, **2017**.
- 43 'Filmes de Langmuir e Langmuir-Schaefer de polímeros low bandgap puros e com PCBM', Edilene Assunção da Silva, Maria L. Braunger, Roger C. Hiorns, Christine Dagrón-Lartigau, Clarissa de Almeida Olivati, 14<sup>th</sup> Congresso Brasileiro de Polímeros, Brazil, October, **2017**.

- 42** 'Adhesion at donor polymer - PEDOT:PSS interfaces in inverted organic solar cells', A. Gregori, A. Tournebize, S. Schumann, H. Peisert, R. C. Hiorns, T. Chassé, Christine Lartigau-Dagron, A. Allal, ANAKON, Tübingen, Germany, April, **2017**.
- 41** 'Fabrication and characterization of low-band gap polymer films PCPDTBT/stearic acid deposited by Langmuir Blodgett', V. J. Rodrigues de Oliveira, M. L. Braunger, R. C. Hiorns, C. Dagron-Lartigau, C. de Almeida Olivati, XV Brazil MRS Meeting, Campinas, Brazil, September **2016**.
- 40** 'Electrospinning of PVDF for Application in Photovoltaic Devices', A. P. Pelegrini Bolach, C. E. Campos Lanzi, C. Martins Ruiz, A. Antunes da Silva, B. H. Santana Goís, J. C. Bittencourt, G. Dognani, R. C. Hiorns, C. de Almeida Olivati, D. L. da Silva Agnostini, XV Brazil MRS Meeting, Campinas, Brazil, September **2016**.
- 39** 'Delamination in OPV Devices: A New Technique to Identify the Weakest Mechanical Point', A. Gregori\*, S. Schumann, A. Tournebize, H. Peisert, T. Chassé, C. Dagron-Lartigau, Roger C. Hiorns, A. Allal, ISOS-7, Barcelona, October **2014**.
- 38** 'Development of a Testing Adhesion/Cohesion Technique in OPV Devices', A. Gregori, S. Schumann, C. Dagron-Lartigau, A. Allal, Roger C. Hiorns, HOPV, Lausanne, Switzerland, May **2014**.
- 37** 'Versatile Functional Poly(3-hexylthiophene) for Hybrid Particles Synthesis by Grafting Onto Technique: Core@Shell ZnO Nanorods for PhotoVoltaic devices', H. Awada, M.-H. Delville, R. C. Hiorns, A. Bousquet, C. Dagron-Lartigau, L. Billon, ERMS, Strasbourg, France, May **2014**.
- 36** 'Development of polyfullerenes for inverted solar cells', B. Bregadiolli, R. Marques Ferreira, H. Santos Silva, H. H. Ramanitra, D. Bégué, F. C. Lavarda, C. Dagron-Lartigau, C. F. O. Graeff, R. C. Hiorns, Journées Jeunes Chercheurs Photovoltaïque Organique et Hybride, Mèze, France, November **2013**.
- 35** 'Incorporation of Fullerene into Polymers for Photovoltaic Applications', H. H. Ramanitra, H. Santos Silva, D. Bégué, C. Dagron-Lartigau, and R. C. Hiorns, Journées Jeunes Chercheurs Photovoltaïque Organique et Hybride, Mèze, France, November **2013**.
- 34** 'Comparing Langmuir-Schaefer and spin-coating thin films for application in photovoltaic devices', M. L. Braunger, H. Awada, R. C. Hiorns and C. Dagron-Lartigau, Journées Jeunes Chercheurs Photovoltaïque Organique et Hybride, Mèze, France, November **2013**.
- 33** 'Polyfullerenes as alternative n-type materials with improved morphological properties for bulk-heterojunction solar cells', H. Santos Silva, H. H. Ramanitra, D. Bégué, C. Dagron-Lartigau, R. C. Hiorns, MNPC 2013, Annecy, France, October **2013**.
- 32** 'Hybrid Core@Shell ZnO Nanorods@poly(3-hexylthiophene)', H. Awada, A. Bousquet, R. C. Hiorns, C. Dagron-Lartigau, Fπ11, Arcachon, France, June **2013**.
- 31** 'Polythiophene-based copolymers for photovoltaics', H. Medlej, S. Khiev, L. Rubatat, G. Wantz, R. C. Hiorns, C. Dagron-Lartigau, Aquitaine Polymer Conference, Arcachon, France, October **2011**.
- 30** 'Propriétés des copolymères à blocs à base de polythiophène pour l'application

- photovoltaïque', H. Medlej, S. Khiev, R. C. Hiorns, L. Rubatat, G. Wantz, C. Dagron-Lartigau, DIELOR 2010, Giens, October **2010**.
- 29** 'Synthesis and Photovoltaic application of Block copolymers Based on Poly(3-hexylthiophene) and Polystyrene', H. Erothu, R. C. Hiorns, E. Cloutet, H. Cramail, IUPAC-MACRO 2010, Glasgow, July **2010**.
- 28** 'Alternatively linking fullerene and conjugated polymers', R C. Hiorns, P. Iratçabal, D. Bégué, A. Khoukh, R. de Bettignies, J. Leroy, M. Firon, C. Sentein, H. Martinez, H. Preud'homme, C. Dagron-Lartigau, MNPC-09, France, **2009**.
- 27** 'Main-chain fullerene polymers for photovoltaics', R. C. Hiorns, E. Cloutet, E. Ibarboure, L. Vignau, N. Lemaitre, S. Guillerez, C. Absalon, H. Cramail, MNPC-09, France, **2009**.
- 26** 'Synthesis of Poly(3-hexylthiophene) Based Copolymers for Organic Electronics', H. Erothu, M. Urien, R. C. Hiorns, E. Cloutet, H. Cramail, MNPC-09, France, **2009**.
- 25** 'Main-chain fullerene polymers for photovoltaics', R. C. Hiorns, E. Cloutet, E. Ibarboure, L. Vignau, N. Lemaitre, S. Guillerez, C. Absalon, H. Cramail, 42<sup>nd</sup> IUPAC World Chemistry Conference, Glasgow UK, August **2009**.
- 24** **Poster prize.** 'Main-chain fullerene polymers for photovoltaic devices', R. C. Hiorns, E. Cloutet, E. Ibarboure, L. Vignau, S. Guillerez N. Lemaitre, H. Cramail, Excitonic Solar Cell Conference, Warwick, September **2008**.
- 23** 'Etude par RMN de dérivés de polythiophène : poly[3-(4-octylphényl)thiophène] et poly[3-(4-octylphénoxy)thiophène]', F. Ouhib, R. C. Hiorns, A. Khoukh, J. Desbrières, C. Dagron-Lartigau, Congrès International des Résonance Magnétique, Settat, Morocco, January **2008**.
- 22** 'Block copolymers for photovoltaic cells', R.C. Hiorns, E. Cloutet, S. Lecommandoux, H. Cramail, M. Urien, L. Vignau, G. Wantz, J.-P. Parneix, N. Lemaitre, S. Guillerez, 'International workshop towards organic photovoltaics', Linz, Austria, February **2008**.
- 21** 'Block copolymers for photovoltaic cells', R. C. Hiorns, E. Cloutet, S. Lecommandoux, H. Cramail, M. Urien, L. Vignau, G. Wantz, J.-P. Parneix, N. Lemaitre, 1<sup>st</sup> Aquitaine Conference on Polymers, France, October **2007**.
- 20** 'Regioregular polythiophenes copolymers for bulk heterojunction solar cells', F. Ouhib, R. C. Hiorns, R. de Bettignies, S. Bailly, J. Desbrières, C. Dagron-Lartigau, 1<sup>st</sup> Aquitaine Conference on Polymers, France, October **2007**.
- 19** 'Block copolymers for photovoltaic cells', R. C. Hiorns, E. Cloutet, S. Lecommandoux, H. Cramail, M. Urien, L. Vignau, G. Wantz, J.-P. Parneix, N. Lemaitre, MNPC-07, Montpellier, France, September **2007**.
- 18** 'Block copolymers based on donors and acceptors for photovoltaic cells', R. C. Hiorns, E. Cloutet, S. Lecommandoux, H. Cramail, M. Urien, L. Vignau, G. Wantz, J.-P. Parneix, N. Lemaitre, ECME-2007, Metz, France, September **2007**.
- 17** 'Block copolymers for photovoltaic cells', R. C. Hiorns, E. Cloutet, S. Lecommandoux, H. Cramail, M. Urien, L. Vignau, G. Wantz, J.-P. Parneix, N. Lemaitre, IUPAC World Chemistry Congress, Torino, Italy, August **2007**.
- 16** 'Synthesis and photovoltaic characterisations of high molecular weight poly[3-(4-octylphenyl)thiophenes]', F. Ouhib, R. C. Hiorns, R. de Bettignies, S. Bailly, C. Dagron-Lartigau,

J. Desbrières, IUPAC Macro 2006, Brazil, July **2006**.

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- 14** 'Poly(3-alkylthiophene)s and copolymers with fullerene for photovoltaic applications', R. C. Hiorns, R. de Bettignies, A. Khoukh, J. Leroy, S. Bailly, H. Preud'homme, H. Martinez, M. Firon, C. Sentein, C. Dagron-Lartigau, ECHOS '06, Paris, June **2006**.
- 13** 'Auto-désorption/ionisation de copolymères à base de poly (3-alkylthiophène) et fullerène par MALDI-TOF', H. Preud'homme, R. C. Hiorns, C. Dagron-Lartigau, R. Lobinski, Symposium de Chimie et Biologie Analytiques, Montpellier, **2005**.
- 12** 'Influence de la longueur de chaîne du P3HT pour l'application photovoltaïque organique', R. de Bettignies, J. Leroy, M. Firon, C. Sentein, R. C. Hiorns, C. Dagron-Lartigau, X1eme Journées Polymères Conducteurs, Batz-sur-Mer, September **2005**.
- 11** 'Matériaux à base de poly(3-alkylthiophène) pour les applications photovoltaïques', R. C. Hiorns, J. Leroy, R. de Bettignies, M. Firon, C. Sentein, C. Dagron-Lartigau, X1eme Journées Polymères Conducteurs, Batz-sur-Mer, September **2005**.
- 10** 'Synthesis and chain-end modification of poly(3-butylthiophene)', R. C. Hiorns, B. Gourdet, A. Khoukh, C. Dagron-Lartigau, DIELOR, Limoges, September **2004**.
- 9** 'Highly possible linear self-assembly of conjugated multi-block copolymers', R. C. Hiorns, H. Martinez, IUPAC Macro Congress, Paris, France, July, **2004**.
- 8** 'Well ordered thin films of a rod-coil, multi-block copolymer containing conjugated segments', R. C. Hiorns, H. Martinez, F. Schué, R. G. Jones, J. François, DIELOR, Nantes, France, November **2002**.
- 7** 'New star-like conjugated copolymer: C<sub>60</sub>(oligostyrene-poly(1,4-phenylene)-*block*-polystyrene)<sub>6</sub>', E. Mignard, R. C. Hiorns, B. François, Polymers in the 3<sup>rd</sup> Millennium, Montpellier, September **2001**.
- 6** 'Synthesis and characterisation of poly[polymethylphenylsilylene-*block*-poly(ethylene oxide)] and poly(polymethylphenylsilylene-*block*-polyisoprene) multiblock copolymers', R. C. Hiorns, S. J. Holder, F. Schué, R. G. Jones, Polymers in the 3<sup>rd</sup> Millennium, Montpellier, September **2001**.
- 5** 'Synthesis and characterisation of copolymers of poly(*p*-phenylene) and poly(ethylene oxide)', R. C. Hiorns, E. Mignard, B. François, Abstracts of the 38<sup>th</sup> Macromolecular IUPAC Symposium, Warsaw, Poland, July **2000**.
- 4** 'Supramolecular structures from poly(methylphenylsilylene)/poly(ethylene glycol) multiblock copolymers', (abstract p B2), N. A. J. M. Somerdijk, S. J. Holder, R. C. Hiorns, R. J. M. Nolte, R. G. Jones, 31<sup>st</sup> Organosilicon Symposium, USA, May **1998**.
- 3** 'Synthesis and characterisation of some block copolymers of poly(methylphenylsilane)', R. C. Hiorns, L. Lutsen, R. G. Jones, Macro Group UK Young Researchers, Symposium, Leeds, April **1997**.
- 2** 'Synthesis and characterisation of poly(methylphenylsilylene)-*block*-polyisoprene



copolymers', F. Schué, R. C. Hiorns, R. G. Jones, XI<sup>th</sup> International Symposium on Organosilicon Chemistry, Montpellier, September **1996**.

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## General Media Articles and Press Releases

15. 'Photovoltaïques : la révolution est lancée', Sud Ouest, 11 April 2017, Romain Bély. See <http://www.sudouest.fr/2017/04/11/photovoltaïques-la-revolution-est-lancee-3356560-4344.php>
14. Press Release at <http://www.opvius.com/high-tech-solar-power-for-cultural-sites.html> published, March **2017**.  
Widely used, for example, see:  
<http://www.osadirect.com/news/article/1914/opvius-develops-and-ships-organic-solar-cells-laminated-in-polycarbonate-to-french-village/>
13. Press Release at <http://www.opvius.com/consequat-vitae.html> published, December **2015**.
- 12 'Roger Hiorns Times Two', by Susanna Davies-Crook, in Dazed Digital, published February **2011**.
- 11 'Buckyball polymers promise cheap, flexible solar cells', based on report by M. Berger in Nanowerk (see General Media Article **10** below), Iranian Government Innovation Committee of Ministry of Industries and Mines, published November **2010**.
- 10 'Buckyball polymers promise cheap, flexible solar cells', on [Nanowerk.com](http://Nanowerk.com) by M. Berger published 1/11/2010, citing articles 27 'Synthesis of Donor-Acceptor Multiblock Copolymers Incorporating Fullerene Backbone Repeat Units', R C. Hiorns *et al.*, *Macromolecules*, **2010**, 43, 6033-6044, 26 'Main-chain fullerene polymers for organic photovoltaics', R. C. Hiorns *et al.*, *Macromolecules*, **2009**, 42(10), 3549-3558; article 25 'Alternatively linking fullerene and conjugated polymers', R. C. Hiorns, *et al. Journal of Polymer Science Part A: Polymer Chemistry*, 2009, 47(9) 2304-2317, and article 12 'A tentative theory for conjugated rod-coil multi-block copolymer self-assembly and the initial characterisation by atomic force microscopy and small angle neutron scattering of poly(polymethylphenylsilane-block-polyisoprene)', R. C. Hiorns *et al.*, *Synthetic Metals*, **2003**,139(2), 463-469.
- 9 'Fullerene as a Repeat Unit in a Novel Donor-Acceptor Polymer' *Synfacts* **2010**, *10*, 1127-1127, as selected by Timothy M. Swager and Stefanie A. Sydlik, published October 2010, working from article 27, 'Synthesis of Donor-Acceptor Multiblock Copolymers Incorporating Fullerene Backbone Repeat Units', R C. Hiorns, E. Cloutet, E. Ibarboure, A. Khoukh, H. Bejbouji, L. Vignau, H. Cramail, *Macromolecules*, **2010**, 43, 6033-6044.
- 8 'Bucky balls offer cheap solar route', *Chemistry and Industry*, by P. Walter published 16 July 2010, working from article 27, 'Synthesis of Donor-Acceptor Multiblock Copolymers Incorporating Fullerene Backbone Repeat Units', R C. Hiorns, E. Cloutet, E. Ibarboure, A. Khoukh, H. Bejbouji, L. Vignau, H. Cramail, *Macromolecules*, **2010**, 43, 6033-6044.

- 7 'Basic Guidelines to Polymer Nomenclature', R. C. Hiorns, *Chemistry International*, **2009**, 31(4).
- 6 'Combining the fullerenes and polymers for next-generation solar cells', ChemJ, China, Published 06/06/**2010**.
- 5 'Combining the properties of fullerenes and polymers for next-generation solar cells' Zangani Investor Community, USA, published 05/06/2009
- 4 '풀러렌과 고분자의 조합: 태양 전지 응용', Gyeonggi Technology Network, Korea, published 04/06/2009
- 3 '풀러렌과 고분자의 조합: 태양 전지 응용', Industrial Technology Service Inc. (ITSTV), Korea, published 02/06/2009
- 2 '풀러렌과 고분자의 조합: 태양 전지 응용', National Science Digital Links (NDSL), Korea, Global Trends Briefing, published 01/06/2009
- 1 'Combining the properties of fullerenes and polymers for next-generation solar cells', on [Nanowerk.com](http://Nanowerk.com) by M. Berger published 29/5/2009, citing article 26 'Main-chain fullerene polymers for organic photovoltaics', R. C. Hiorns *et al.*, *Macromolecules*, **2009**, 42(10), 3549-3558; and article 25 'Alternatively linking fullerene and conjugated polymers', R. C. Hiorns, *et al.* *Journal of Polymer Science Part A: Polymer Chemistry*, 2009, 47(9) 2304-2317.

## Meeting Chair, International Advisory Committees, and Conference Session Chair

### IUPAC

#### Chair of IUPAC Subcommittee on Polymer Terminology

- 5 July **2018**, Cairns, Australia.
- 4 July **2017**, São Paulo, Brazil.
- 3 July **2016**, Istanbul, Turkey.
- 2 August **2015**, Busan, South Korea.
- 1 July **2014**, Chiang Mai, Thailand.

### Conference Organisation Committees

**International Advisory Committee Member**, Kathmandu Symposia on Advanced Materials (KaSAM), Kathmandu, Nepal, October, **2018**.

**International Advisory Committee Member** [Energy Materials Nanotechnology Meeting on Polymer](#) (EMN), Hong Kong, China, January, **2016**.

**Event Chair, Science Committee Chair**, [European Training School and Conference on Organic Photovoltaic Stability](#), Cargese, Corsica, France, June, **2015** and as Coordinator for Establis, overseer for this conference and training event (*ca* 105 people).

**International Advisory Committee Member** of [The Seventh International Symposium on Engineering Plastics](#) (EP'2015), Xining, China, August **2015**.

**International Advisory Committee Member**, [International Conference on Green Initiatives in Science and Technology](#), Faridabad, India, January **2015**.

**International Advisory Committee Member** and **Session Chair** of [Energy Materials Nanotechnology Meeting on Polymer](#) (EMN), Orlando, Florida, January, **2015**.

**Co-Chair**, [6th International Summit on Organic Photovoltaic Stability \(ISOS-6\)](#), Chambéry, France, December **2013**.

**Session Chair** of [DIELOR 2013](#), Limoges, November **2012**.

**Session Chair** of GFP2011 Session Chair, Pau, November **2011**

**Session Chair** and **Organizing Committee Member**, 3<sup>rd</sup> Aquitaine Conference on Polymers, October **2011**.

**Organizing Committee Member**, 2<sup>nd</sup> Aquitaine Conference on Polymers, **2009**.

## Outreach

- 15 'Le Photovoltaïque Organique : L'Énergie Solaire du Futur ?', lecture for 13-14 year olds at Collège Langevin Wallon, Tarnos, March 2018.
- 14 'Le Photovoltaïque Organique : L'Énergie Solaire du Futur ?', lecture for 16-18 year olds at Lycée Théophile-Gautier, Tarbes, March 2017.
- 13 'Food-dye solar cells', practical classes in making solar cells using items from a local supermarket, Papakura High School, Auckland, New Zealand, February 2017.
- 12 ESOS Solar Outreach event, June 2016, <http://www.project-establis.eu/esos>, Cargèse, Corsica, France.
- 11 'Food-dye solar cells', practical classes in making solar cells using items from a local supermarket, Papakura High School, Auckland, New Zealand, February 2015.

www.stuff.co.nz

NEWS

PAPAKURA COURIER, FEBRUARY 18, 2015 9

# Scientist's visit inspires students

By TAO LIN

Squeezing Twink, food colouring, a sponge and copper inside a plastic CD case might seem a dubious solution for saving the world.

But the unlikely combination has given Papakura High School students a glimpse into a better future.

The students, ranging from year 9s to senior physics students, enjoyed a visit from Dr Roger Hiorns, an English researcher for the French National Centre for Scientific Research.

He taught them how to make solar cells out of normal supermarket items as a science experiment with a crucial message.

"I really want them to understand solar energy and also to know it can be our future. If we carry on burning fossil fuels then we are going to run ourselves into the ground," he says.

The experiment involved putting food colouring and iodine solution on a kitchen sponge and encasing it with a CD case that had pencil rubbed inside it.

Each case had copper wires sticking out and these were used to measure the amount of voltage generated when a light was shone on to the case.

Hiorns says his fellow researchers have taken the



**Educational visit:** Researcher from the French National Centre for Scientific Research Dr Roger Hiorns taught a group of Papakura High School students how to make solar cells out of items from the supermarket to help them understand solar energy. From left: Janesh Latchman, Emily Thamavongsar, Tehinureina Karaka and Arven Gonzales.

Photo: TAO LIN

same experiment to a number of other countries including Germany, Spain, Russia and Poland as well as around the United Kingdom as part of a requirement of some funding received from the European Economic Committee.

He says he was "stunned" by the questions asked by Papakura High's year 9 students, showing their

appreciation of solar energy. Papakura High School's head of science Cheryl Mitchell says it shows a lot when that many year 9 students stay focused for that length of time.

"Forty-five year 9 students were engaged for two hours. That's says to me they were enjoying what they were doing. That was because they could understand what

they were doing," she says. As well as exposing the students to the possibilities of solar energy, Hiorns' visit also served another purpose from the school's perspective.

"They get the idea that the world is your oyster," Mitchell says. "Education can lead to anything they want. Right now they can be anything they want to be and education can take them

there. All they have to do is work at it."

Mitchell says she's planning to invite more science professionals to the school to give talks or teach guest classes to try and help students become inspired for their own futures.

She also plans to start up an environmental club at the school following Hiorns' visit.

- 10 'Les nouvelles cellules solaires', Meera Stephane, Jeanne François, Roger C. Hiorns, Collège d'Arudy, France, December 2014.
- 9 'Les nouvelles cellules solaires', Hasina H. Ramanitra, Alberto Gregori, Jeanne François, Roger C. Hiorns, Collège d'Arudy, France, Novembre 2014.
- 8 'Organic Photovoltaics', Roger Hiorns, Lycée Jacques Monod, Pau, France, January, 2014.
- 7 'Parrain Scientifique', Lycée Saint Cricq, Pau, 2013 to present date.
- 6 'Career Science', Alberto Gregori, Roger Hiorns, Lycée Saint Cricq, Pau, September 2013.
- 5 Chair and Organiser, 'Platform for exchange' A forum for Horizon 2020, future projects and employment.' IPREM, Pau, November 2013, with ca 40 participants from industry and academia.
- 4 'Bientôt des panneaux solaires en plastiques?', Presentation and discussion, Café des Sciences, Pau, October 2012.
- 3 Presentation of Polymers and Solar Cells, 6<sup>ème</sup> Édition du Goûter des Sciences à la Maison Écociyenne de Bordeaux, 4<sup>th</sup> of June 2012. With *Les Petits Débrouillards* presentations and

activities for 100 students from the schools A. Dupeux, Paul Doumer, Pins Francs and Ste Marie Bastide. **Videos** and photos of the activities are visible on <http://www.lespetitsdebrouillardsaquitaine.org/spip.php?article459>

- 2 'Chimie et photovoltaïque: comment sauver la planète?' Class presentation for 12-14 year olds, L'Ensemble Scolaire Pradeau-La Sède, Tarbes, France, May 2011.
- 1 'Plastique et photovoltaïque : comment sauver la planète?' Class presentation for 13-14 year olds, Lycée Mont de Marson, Mont de Marson, France, February 2011.

## Book Translations

- 4 'Solid-State Physics for Electronics', A. Moliton, Wiley-ISTE (London), **2009**.
- 3 'Applied Electromagnetism and Materials', A. Moliton, Springer (New York), **2007**.
- 2 'Basic Electromagnetism and Materials', A. Moliton, Springer (New York), **2006**.
- 1 'Optoelectronics of Molecules and Polymers', A. Moliton, Springer (New York) **2005**.

## Jury Participation

**Hanwha-Total Award, and the Samsung IUPAC Young Polymer Scientist Prize**

Jury member, **2018, 2016, 2014**.

### PhD jurist

- 8 Bhushan Ramesh Patil, 'Interfacial layers and semi-transparent electrodes for large area flexible organic photovoltaics', CRPP, University of Southern Denmark, December **2017**.
- 7 Petru Apostol, 'Synthesis and liquid crystal and magnetic properties of 1,8,15,22-tetraalkoxy-metal(II/III)-phthalocyanines', CRPP, Université de Bordeaux 1, (*rapporteur*), September **2016**.
- 6 Parantap Sarkar, 'The Ceramidonine and Perkin Approaches to Aromatic Nanoribbons', CRPP, Université de Bordeaux 1, (*rapporteur*), July **2011**.
- 5 Aurel Diacon, 'Polymers functionalized with chromophores for applications in photovoltaics, photonics and medicine', Universitatea Politehnica di Bucuresti and Université d'Angers (*rapporteur*), September **2011**.
- 4 Julien Kelber, 'Cristaux liquides colonnaires donneurs et accepteurs pour cellules solaires organiques', CRPP, Université de Bordeaux 1, September **2011**.
- 3 H. Erothu, 'Synthesis and Photovoltaic Properties of Novel Copolymers Based on Poly(3-hexylthiophene)', ENSCBP, Institut Polytechnique de Bordeaux, France, **2011**.
- 2 F. Ouhib, 'Elaboration de matériaux dérivés du polythiophenes. Application aux cellules photovoltaïques organiques.' Université de Pau et des Pays de l'Adour, **2007**.
- 1 S. Lamaison, 'Effet de la microstructure sur les propriétés rhéologiques de différents polymères linéaires', Université de Pau et des Pays de l'Adour, **2002**.

## Training and Research Management

### Supervision of Postdoctoral and PhD Research Fellows

- 18 Eleftheria Batagianni, PhD Fellow cotutelle with UNESP, Brazil, 09/2017-08/2020. Director with Co-director Prof. Didier Bégué.

- 17 Edilene SILVA, Ciências sem Fronteiras PhD Fellow cotutelle with UNESP, Brazil, 4/2015-3/2016. Co-encadrant.
- 16 Dr. Craig COMBE, Region Aquitaine, Fullinc Postdoctoral Fellow, 12/2013-12/2014. Director 100%.
- 15 Dr. Harikrishna Erothu, Co-Director, in project SYNABCO, FP7-PEOPLE-IEF-SYNABCO-273316, 2011-2012, Intra-European Fellowships (IEF) post-doc, directed by Dr Paul Topham.
- 14 Meera STEPHEN, FP7-PEOPLE-ITN-Establish-290022, PhD Fellow, (cotutelle with Vilnius University, Lithuania), 1/2013-12/2015. Director 33%/67% with Prof. Kestutis Arlauskas. PhD completed 10/2016 with *Felicitations de Jury*.
- 13 Maria Luisa BRAUNGER, CAPES/COFECUB PhD Fellow (Brazil, UNESP, cotutelle), 3/2011-10/2015. Cotutelle, UNESP, Brazil. Co-encadrant. PhD completed 10/2015 with *Felicitations de Jury*.
- 12 Bruna BREGADIOLLI, CAPES/COFECUB PhD Fellow, (Brazil, UNESP, cotutelle with Prof. Carlos F. O. Graeff), 10/2011-9/2015. Cotutelle, UNESP, Brazil. Director 100%. PhD completed 10/2016 with *Felicitations de Jury*.
- 11 Hasina H. RAMANITRA, Region Aquitaine, Fullinc PhD Fellow, and in cotutelle with Prof. T. Chassé and Dr. H. Peisert of the University of Tübingen 11/2012-10/2015. Director 100%. PhD completed 12/2015 with *Magna Cum Laude Felicitations de Jury*.
- 10 Alberto GREGORI, FP7-PEOPLE-ITN-Establish-290022, PhD Fellow, 9/2012-8/2015. Co-encadrant.
- 9 Hugo SANTOS SILVA, FP7-PEOPLE-ITN-Establish-290022, PhD Fellow, 9/2012-8/2015. Director with Prof. Bégué and in cotutelle with Prof. T. Chassé and Dr. H. Peisert of the University of Tübingen. PhD completed 16/7/2015 with *Summa Cum Laude/Felicitations de Jury*.
- 8 Marc-Alexandre ARNAUD, ECP/EPCP, IPREM, defended October 2012, "Modelling of Intra and Inter-Macromolecular Conjugation in Polythiophenes". Co-encadrant.
- 7 Hussein MEDLEJ, EPCP, IPREM, UPPA, 11/2008-10/2011. "Copolymères à blocs « rigide-rigides » à base de thiophène pour l'application photovoltaïque". Co-encadrant.
- 6 Harikrishan EROTHU, LCPO, ENSCBP, IPB, defended February 2011, "The synthesis and characterisation of well-defined block copolymers for photovoltaic applications" Co-encadrant.
- 5 Farid OUHIB, defended 2008, LPCP, UPPA, "Elaboration de matériaux dérivés du polythiophène. Application aux cellules photovoltaïques organiques". Co-encadrant.
- 4 Adel CHAÏEB, defended 2005, LPCP, UPPA, "Synthèse et caractérisation de nouveaux dérivés du poly(*p*-phénylène vinylène) PPV". Co-encadrant.
- 3 Sandrine LAMAISON, defended 2002, LPCP, UPPA, "Effet de la microstructure sur les propriétés rhéologiques de différents polymères linéaires". Co-encadrant.
- 2 Emmanuel BEAUDOIN, defended 2001, LPCP, UPPA, Co-encadrant.
- 1 Emmanuel MIGNARD, defended 2001, LPCP, UPPA, "Synthèse et Caractérisation de Nouveaux Copolymères en Étoile à Coeur de Fullerène Comportant des Séquences de Poly(1,4-phénylène)". Co-encadrant.