

Dr. RAMIRO GUERRERO-SANTOS



Mexican & French Passports

Summary: born in San Pedro Coah Mexico april 1961. Dr. Guerrero-Santos obtained his M. Sc. and PhD in Materials Science at the University of Strasbourg/Centre National de la Recherche Scientifique in France in 1987 and 1990, respectively. Later he obtained a Master in Technology Commercialization from the University of Texas (Center for Global Innovation and Entrepreneurship) and an M B A at the Iberoamericana University. The number of scientific papers, granted patents, advised thesis and international conferences has reached 160 in 2012. He is a pioneer of combination of RDRP techniques for the preparation of multiblock copolymers and has developed some new products for the biggest polymer producers in Mexico, such as *BioreneTM*.

Dr. Guerrero-Santos served as Head of the Polymer Chemistry group from 2005 to 2007 at the Centro de Investigación en Química Aplicada Center of CONACYT (National Council of Science and Technology). Under his responsibility the investment in technological development from the productive sector increased 8 fold and the groundwork for the development of commercial new products was established. Dr. Guerrero-Santos is the Founding Director of Kinovatec, dedicated to accelerate the regional innovation process. He is also the founder of the Polymer Technology Network (<http://polymertechnologynetwork.com/>), which is being directed towards an open innovation system to improve the technology transfer and commercialization in Mexico.

He has been visiting professor at The Polymer Science Institute of the Akron University and frequent visitor of the polymer laboratories of the some European Universities such as Bordeaux, Montpellier, Strasbourg, Budapest, etc.

Highlights

- **Entrepreneurship**
 - Kinovatec's Founder Director, Company focused in the preparation of valuable products derived from vegetable oils. (biodiesel, polyesters)
- **Resources management**
 - Between 2006 and 2012, I managed 20 Ph D-scientists involved in the development of new products at CIQA to carry out innovation projects contracted with private companies.
 - By 2011, I had an average of 1 million USD in expenditures, representing 18% of the CIQA's total.

- By 2012, my contribution to the cash-resources earned by my institute (CIQA) through innovation represented 62%. Of the CIQA's total
- Currently I manage a team of technicians, students (PhD, M Sc,) and postdocs composed of 7-9 peoples.

- **Management**

- President of Mexican Polymer Society; <http://www.sociedadpolimerica.mx/>
- Head of the Polymer Chemistry Department at CIQA; www.ciqa.mx
- Director of The Polymer Technology Network; <http://polymertechnologynetwork.net/>
- President of Kinovatec

- **Affiliations and networking**

- Mexican Council at the Pacific Polymer Federation (1998-201-); http://www.ppc12.org/ppf_ppc/ppf.php
- Founder of the Mexican Polymer Society (Secretary 1996-98, National President 1998) <http://www.sociedadpolimerica.mx/>
- American Chemical Society (1991-201 -),
- Groupe Francais des Polymeres (1990-),
- Founder of the PTNetwork (2010), <http://polymertechnologynetwork.net/>
- Linkedin (http://www.linkedin.com/profile/view?id=95483516&trk=tab_pro) member with +500 network professionals in the area of Polymers and Technology Transfer.

- **Others**

- Collaboration with a number of national and overseas Universities and Research Centers, (Texas, Strasbourg, Montpellier, Budapest, Managua, UNAM, ITESM, BUAP, etc.)
- Referee for Macromolecules and Macromolecular Chemistry & Physics, Macromolecules, Journal of Polymer Chemistry, Part A, The Polymer Chemistry Journal, Journal of the Mexican Chemical Society, Polymers for Advanced Technologies, etc.
- Invited for the assessment of innovation projects at (*CleanTech* (<http://www.cleantechchallenge.org/>)*Challenge*; a business plan competition to develop business based on clean technologies.
- English (Professional working proficiency) , French (Native or bilingual proficiency) Spanish (Native or bilingual proficiency)

- **Research Interest**

- Combining polymerization living systems to prepare new block copolymers
- Biobased polymers
- Methathesis polymerization

PRODUCTS

Relevant publications

- 1) *New dialkoxyamine-trithiocarbonate for the synthesis of multiblock copolymers through in tandem RAFT/NMP†* Claude St Thomas,^a Hortensia Maldonado-Textle,^a Judith N. Cabello-Romero,^a Javier Macossay,^b Xujun Zhang,^b Nuria Esturau-Escofet and Ramiro Guerrero Santos* *Polym. Chem.*, **2014**, *5*, 3089–3097 DOI: 10.1039/c3py01270k
- 2) *Alkoxyamine-functionalized latex nanoparticles through RAFT polymerization-induced self-assembly in water* Claude St Thomas, Ramiro Guerrero-Santos* and Franck D'Agosto *Polym. Chem.*, **2015**, *6*, 5405-5413 **OI**: 10.1039/C5PY00699
- 3) Alejandro M. Villa-Hernandez, Francisco J. Enríquez-Medrano, Hortensia Maldonado-Textle, Ramiro Guerrero-Santos and Patrick Lacroix-Desmazes *Journal of Polymer Research (submitted) Enríquez-Medrano, F.J., Villa-Hernández, A.M., Maldonado-Textle, H. et al. *2,5-di-(2-ethylhexanoylperoxy)-2,5-dimethylhexane as difunctional radical initiator in reverse iodine transfer polymerization (RITP) of styrene, methyl methacrylate and butyl acrylate*. *J Polym Res* (**2016**) *23*: 27. doi:10.1007/s10965-016-0916.
- 4) *Synthesis of an epoxy functionalized spiroorthocarbonate used as low shrinkage additive in cationic UV curing of an epoxy resin*, Marco Sangermano, Ricardo Acosta Ortiz, Bertha A. Puente Urbina, M. Lydia Berlanga Duarte, Aida E. Garcia Valdez, Ramiro Guerrero-Santos, *European Polymer Journal*, *44*, 1046-1052, **2008**, (doi:10.1016/j.eurpolymj.2008.01.039)

Patents

- 5) “Method for the preparation of nano-composites from diene elastomers and thermoplastics”, Hortensia Maldonado, María Esther De León-Sáenz, Ramiro Guerrero-Santos, MX-9708152.
- 6) Method for the functionalizing a polymer and preparing copolymers and terpolymers” Hortensia Maldonado, María Esther De León-Sáenz, Ramiro Guerrero-Santos PCT/US98/21910, US 6,376,615 B1.
- 7) Synthèse de Copolymères A Blocks Obtenues par Polymerisation Radicalaire Contrôlée. Destarac Mathias, Leising Frederic, Dureault Alex, Taton Daniel, Yves Gnanou, And Ramiro Guerrero Santos. FR 2816311
- 8) Synthesis Of Block Copolymers Obtained By Free Radical Polymerisation Destarac Mathias, Leising Frederic, Dureault Alex, Taton Daniel, Yves Gnanou, And Ramiro Guerrero Santos. WORLD PATENT 02/36640 A1
- 9) *Méthod for the Preparati6n de block Copolymers polydisperses throught free radical polymerization base don new Basada en new chain transfer agents* Ramiro Guerrero Santos, Hortensia Maldonado, MX 2001/002844 *Titulo de patente 244386 otorgada; Titular*

Centro de Investigación en Química Aplicada, Int. Cl.8 CO8F2/00, Inventores Ramiro Guerrero Santos, Hortensia Maldonado Textle (PA/a/2001/002844)*

- 10) *Méthod para la Preparación de Copolímeros Segmentados Compuestos de Segmentos Polidienicos, Título de patente otorgada; Titular Centro de Investigación en Química Aplicada, Int. Cl.8 CO8F2/00, Inventores, Ramiro Guerrero Santos*, Hortensia Maldonado Textle (NL/E/2005/000416)*