

Part A. PERSONAL INFORMATION		CV date	2018-10-02
First and Family name	Jose-Ramon SARASUA		
Social Security, Passport, ID number	15969685A	Age	54
Researcher numbers	Researcher ID	E-1819-2015	
	Orcid code	orcid.org/0000-0002-7468-2417	

A.1. Current position

Name of University/Institution	University of the Basque Country (UPV-EHU)		
Department	Mining-Metallurgy Engineering & Materials Science		
Address and Country	Faculty of Engineering, Alameda de Urquijo s/n, 48013 Bilbao		
Phone number	946014271	E-mail	jr.sarasua@ehu.eus
Current position	Professor	From	2016/07/06
Espec. cód. UNESCO	2304; 3312		
Keywords	polymeric biomaterials, biodegradable polymers, polylactides, statistical copolymers, polymer blends, miscibility, crystallinity, micro/nano structured composite materials, mechanical properties, thermoplastic processing		

A.2. Education

Degree	University	Year
B. S. in Chemistry	Universidad del País Vasco (UPV/EHU)	1987
Ph. D. in Mechanics	Université Bordeaux 1	1994

A.3. JCR articles, h Index, thesis supervised...

Total JCR articles: 121. Total citations: 2621. Average citations per item: 21.66; Congress contributions: 130; Patents: 4. h-index: 26. Number of theses supervised: 16.

Part B. CV SUMMARY (max. 3500 characters, including spaces)

BS in Chemistry (1987) with MS degree (1989) by the University of the Basque Country (UPV/EHU-San Sebastian). Ph. D. by *Université Bordeaux*, France (1994). Post doctoral researcher 1995-1996 with Professor Robert E. Prud'homme at Laval University (Québec Canada). Since 1996 his carrier has developed at UPV/EHU. At present he is professor in the area of knowledge of Materials Science and Metallurgical Engineering at Bilbao School of Engineering.

Director of *ZIBIO* research group, ranked top A in the Basque university system. Principal Investigator of the Basque Center for Macromolecular Design and Engineering POLYMAT, group in Science and Engineering of Polymeric Biomaterials. He has obtained and participated in more than 30 research projects with either Europe, Spain state, regional Basque grants or private funding.

He has co-authored more than 140 scientific publications including papers in top ranked journals and book chapters. Regular contributions as speaker in congresses, both national and international, in total more than 100 in the last years. He presents 4 six-year-research recognitions by CNEAI.

Research lines: 1.- Synthesis and characterization of biodegradable polyesters. 2.- Design and development of hybrid polymer systems with incorporation of other substances: bioactive inorganic compounds, antibiotics/antioxidants, and promote mechanical reinforcement, conductivity and/or radio-opacity. 3.- Miscibility studies and nano-structured polymer composites and blends. 4.- Bioabsorbable polymer systems for medical implants, drug delivery and tissue engineering.

Part C. RELEVANT MERITS

C.1. Publications (including books)

- 1.- A. Larrañaga, I.L.M. Isa, V. Patil, S. Thamboo, M. Lomora, M.A. Fernandez-Yague, **J.R. Sarasua**, C.G. Palivan, A. Pandit. "Antioxidant Functionalized Polymer Capsules to Prevent Oxidative Stress". *ACTA BIOMATERIALIA* 67, 21-31. (2018). Ranking (2016): 3/77 in Biomedical Engineering (Q1). IF (2016): 6.319.
- 2.- A. Larrañaga, M. Lomora, **J. R. Sarasua**, C. G. Palivan, A. Pandit "Polymer Capsules as Micro-/Nanoreactors for Therapeutic Applications: Current Strategies to Control Membrane Permeability". *PROGRESS IN MATERIALS SCIENCE* 90, 325-357 (2017). Ranking (2016): 3/275 in Materials Science, Multidisciplinary (Q1). IF (2016): 31.140. Citations (WoS): 3
- 3.- E. Sanchez-Rexach, E. Meaurio, **J. R. Sarasua**. "Recent Developments in Drug Eluting Devices with Tailored Interfacial Properties". *ADVANCES IN COLLOID AND INTERFACE SCIENCE* 249, 181-191(2017). Ranking (2016): 19/146 in Physical Chemistry (Q1). IF (2016): 7.223.
- 4.- M. Fernandez-Yague, A. Larrañaga, O. Gladkovskaya, A. Stanley, G. Tadayyon, Y.N. Guo, **J.R. Sarasua**, S.A.M. Tofail, D.I. Zeugolis, A. Pandit, M.J. Biggs. "Effects of Polydopamine Functionalization on Boron Nitride Nanotube Dispersion and Cytocompatibility". *BIOCONJUGATE CHEMISTRY* 26, 2025-2037 (2015). Ranking (2015): 31/163 in Chemistry, Multidisciplinary (Q1). IF (2015): 4.500. Citations (WoS): 11
- 5.- M. Obarzanek-Fojt, Y. Elbs-Glatz, E. Lizundia, L. Diener, **J.R. Sarasua**, A. Bruinink. "From Implantation to Degradation – are poly(L-lactide)/Multiwall Carbon Nanotube Composite Materials Really Cytocompatible?". *NANOMEDICINE-NANOTECHNOLOGY BIOLOGY AND MEDICINE* 10, 1041-1051 (2014). Ranking (2014): 16/163 in Biotechnology & Applied Microbiology (Q1). IF (2014): 5.413. Citations (WoS): 19
- 6.- J. Fernandez, E. Meaurio, A. Chaos, A. Etxeberria, A. Alonso-Varona, **J.R. Sarasua**. "Synthesis and Characterization of poly(L-lactide/epsilon-caprolactone) Statistical Copolymers with Well Resolved Chain Microstructures". *POLYMER* 54, 2621-2631 (2013). Ranking (2013): 12/82 in Polymer Science (Q1). IF (2013): 3.766. Citations (WoS): 25
- 7.- J. del Rio, A. Etxeberria, N. Lopez-Rodriguez, E. Lizundia, **J.R. Sarasua**. "A PALS Contribution to the Supramolecular Structure of Poly(L-lactide). *MACROMOLECULES* 43, 4698-4707 (2010). Ranking (2010): 5/79 in Polymer Science (Q1). IF (2010): 4.838. Citations (WoS): 30
- 8.- E. Zuza, J.M. Ugartemendia, A. Lopez, E. Meaurio, A. Lejardi, **J.R. Sarasua**. "Glass Transition Behavior and Dynamic Fragility in Polylactides Containing Mobile and Rigid Amorphous Fractions". *POLYMER* 49, 4427-4432 (2008). Ranking (2008): 9/73 in Polymer Science (Q1). IF (2008): 3.331. Citations (WoS): 59
- 9.- I. Olabarrieta, S.W. Cho, M. Gallstedt, **J.R. Sarasua**, E. Johansson, M.S. Hedenqvist. "Aging Properties of Films of Plasticized Vital Wheat Gluten Cast from Acidic and Basic Solutions". *BIOMACROMOLECULES* 7, 1657-1664 (2006). Ranking (2006): 4/75 in Polymer Science (Q1). IF (2006): 3.664. Citations (WoS): 39
- 10.- **J.R. Sarasua**, N.L. Rodriguez, A.L. Arraiza, E. Meaurio. "Stereoselective Crystallization and Specific Interactions in Polylactides". *MACROMOLECULES* 38, 8362-8371 (2005). Ranking (2005): 3/77 in Polymer Science (Q1). IF (2005): 4.024. Citations (WoS): 161
- 11.- **J.R. Sarasua**, R.E. Prud'homme, M. Wisniewski, A. Le Borgne, N. Spassky. "Crystallization and Melting Behavior of Polylactide". *MACROMOLECULES* 31, 3895-3905 (1998). Ranking (1998): 2/67 in Polymer Science (Q1). IF (1998): 3.440. Citations (WoS): 368

C.2. Research projects and grants

1.- *Study and characterization of novel biodegradable polymer composites with improved bioactivity, radio-opacity and mechanical properties. BIOCOPO (Ref. MAT 2016-78527-P)*

Type of call: State

Funding organism: Spanish Ministry of Economy and Competitiveness (MINECO)

Participating organism: UPV-EHU (Dpt. Mining-Metallurgy Engineering and Materials Science, ZIBIO group).

Duration: 3 years (2016/01/01-2018/12/31)

Principal Investigator 1: Prof. Dr. Jose-Ramon Sarasua

Principal Investigator 2: Dr. Emiliano Meaurio

Number of participants: 8

Amount funded: 90.000 €

Pre-doctoral grant (4 years). Amount: 82.400 €

2.- *Research group in Science & Engineering of Polymeric Biomaterials. ZIBIO group. (IT-927-16)*

Type of call: Regional

Funding organism: Basque Government- Department of Education, Research and Universities

Participating organism: UPV-EHU (Dpt. Mining-Metallurgy Engineering and Materials Science, ZIBIO group).

Duration: 3 years (2016/01/01-2021/12/31)

Principal Investigator: Prof. Dr. Jose-Ramon Sarasua

Number of participants: 10

Amount funded: 488.000 €

3.- *Synthesis and characterization of a new generation of biodegradable copolymers and its study of miscibility with biologically active molecules. BIOMATMOL (Ref. MAT 2013-45559-P)*

Type of call: State

Funding organism: Spanish Ministry of Economy and Competitiveness (MINECO)

Participating organism: UPV-EHU (Dpt. Mining-Metallurgy Engineering and Materials Science, ZIBIO group).

Duration: 3 years (2013/01/01-2015/12/31)

Principal Investigator 1: Prof. Dr. Jose-Ramon Sarasua

Principal Investigator 2: Dr. Emiliano Meaurio

Number of participants: 9

Amount funded: 108.783 €

Pre-doctoral grant (4 years). Amount: 82.400 €

4.- *Improved Protection of Medical Devices Against Infection. IPROMEDAI (Ref. COST TD1305)*

Type of call: European

Funding organism: European Community

Participating organism: UPV-EHU (Dpt. Mining-Metallurgy Engineering and Materials Science, ZIBIO group) + 23 other

Duration: 6 years (2013/01/01-2018/12/31)

Coordinator: Dr. Reto Lugnbuehl (RMS Foundation, Switzerland)

Principal Investigator UPV-EHU partner: Prof. Dr. Jose-Ramon Sarasua

Number of participants: 9

Amount funded:

5.- *Carbon nanotube confinement strategies to develop novel polymer matrix composites. POCO. (Ref. 213939-1)*

Type of call: European

Funding organism: UE. NMP 2007-2009- Large scale collaborative Project N°:CP-IP Ref. 213939-1-Ref. EHU-UPV CE07/09

Participating organism: UPV-EHU (Dpt. Mining-Metallurgy Engineering and Materials Science, ZIBIO group) + other UPV-EHU+ 12 other

Duration: 4 years (2008/11/01-2012/10/30)

Coordinator: Javier Barriga (Tekniker)

Principal Investigator UPV-EHU partner: Prof. Dr. Jose-Ramon Sarasua

Number of participants: 9

Amount funded: 530.000

C.3. Contracts

6.- *Development of medical applications for a biopolymer (Ref. 2013.0379.)*

Funding company: NEOL BIOSOLUTIONS, S. A.

Participating organism: UPV-EHU (Dpt. Mining-Metallurgy Engineering and Materials Science, ZIBIO group)

Duration: 4 years (2013/10/01-2014/09/30)

Coordinator: Javier Barriga (Tekniker)

Principal Investigator UPV-EHU: Prof. Dr. Jose-Ramon Sarasua

Number of participants: 3

Amount funded: 48.000 €

C.4. Patents

1.- *Title: Material composed of bioglass and biodegradable polymer with improved thermal stability*

Inventors : Larrañaga, Aitor; Petisco, Susana; Sarasua, José Ramón.

Ref: 201231502 approved patent, PCT/ES2013/070669

State of priority: Spain Date of priority: 2012/09/28

Proprietary: Universidad del País Vasco (UPV-EHU)

2.- *Title: Novel random terpolymers based on D-Lactide, L-lactide & ε-caprolactone*

Inventors: Fernández J, Larrañaga A, Sarasua JR

Ref. P201330302 approved patent, PCT/ES2014/070156

State of priority: Spain Date of priority: 2013/03/04

Proprietary: Universidad del País Vasco (UPV-EHU)

3.- *Title: Electrospun fibers of biocompatible polymers suitable for tissue scaffolds*

Inventors: Fernández J, Sarasua JR

EP18382230

State of priority: Spain Date of priority 2018

State of priority Spain Fecha de prioridad:

Proprietary: : Universidad del País Vasco (UPV-EHU) and Polimerbio S. L.

C.5, C.6, C.7... (e. g., Institutional responsibilities, memberships of scientific societies...)

- Representative of the University of the Basque Country (UPV/EHU) in the European technological Platform in Nanomedicine, ETP Nanomedicine, since 2012.

- Spanish representative in *Improved Protection of Medical Devices Against Infection. iPROMEDA* (COST project Ref. TD1305).

- Department coordinator (section of Biscay) from 2010/10/07 to 2015/04/15, Department of Mining-Metallurgy Engineering & Materials Science (UPV/EHU).

- Memberships of scientific societies: American Chemical Society (since 2006), Society of Plastic Engineers (since 2006), European Society of Biomaterials (since 2011), Spanish Royal Society of Chemistry & Physics RSEQ&F, specialty group in polymers and molecular materials (since 2010).