

Part A. Personal Information

DATE	09/03/2021
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Surname(s)	de Vicente Álvarez-Manzaneda	
Forename	Juan	
Social Security, Passport, ID number	44221790N	
Sex	Male	
Age	45	
Researcher codes	WoS Researcher ID (*)	B-4644-2008
	SCOPUS Author ID(*)	9943965800
	Open Researcher and Contributor ID (ORCID)	0000-0002-2833-2272

(*) At least one of these is mandatory

A.1. Current position

Post/ Professional Category	Full Professor / Catedrático de Universidad	
UNESCO Code	2204	
Key Words	Fluid Physics, Rheology, Tribology, Non-Newtonian Fluids, Magnetic Colloids, Nanoscience, Magnetorheology, Soft Matter	
Name of the University/Institution	University of Granada	
	Department/Centre	Applied Physics Department
	Full Address	Avda. Fuentenueva s/n 18071 Granada
	Email Address	jvicente@ugr.es
	Phone Number	958245148
Start date	17/11/2016	

A.2. Education (title, institution, date)

Year	University	Degree	Title
1998	University of Granada	First degree	Licenciado en Ciencias Físicas
2001	University of Granada	Masters	Suficiencia Investigadora
2002	University of Granada	PhD	Doctor Europeo en Ciencias Físicas (Esp. Física Fundamental). Sob. Cum Laude con mención europea
2002	Université de Nice-Sophia Antipolis (France)	PhD	Doctor en Ciencias (Esp. Física). Très Honorable

A.3. Indicators of Quality in Scientific Production (See the instructions)

- a) Total number of citations: **3798** Average during the last five years: **354**
b) Total number of publications in the first quartile (Q1) and first decile (D1): **119 Q1; 15 D1**
c) h-index: **34** (WoS) **32** (Scopus) **38** (Google scholar)
d) Thesis supervised: **10**
e) **141 JCR Papers** - <http://www.ugr.es/~jvicente>

Part B. Free Summary of CV (Max. of 3.500 characters, including spaces)

Juan de Vicente received a B.Sc. degree in Physics from University of Granada (UGR) in 1998 with highest honors. In 1999 he received a FPU Predoctoral Fellowship. During his Ph.D. studies he carried out long-term research stays at the Laboratoire de Physique de la Matière Condensée, University of Nice (CNRS. France), Chemical Engineering Department and Rheology Research Center, University of Wisconsin-Madison (USA), and Vakgroep Reologie Faculteit Technische Natuurkunde, Universiteit Twente (The Netherlands). In 2000 he received the Research Award in Physics from the Academy of Mathematical, Physico-chemical and Natural Sciences for his investigations on magnetorheological (MR) fluids. He received two Ph.D. degrees in Physics from the UGR and the University of Nice with highest honors, European Mention and Extraordinary Doctorate Awards.

In February 2003 he received an EU-funded Marie Curie Postdoctoral Fellowship at Product Microstructure Unit & Corporate Research (Unilever, UK) and Imperial College London (ICL, UK). He was appointed Academic Visitor at the Tribology Group (ICL) from 2003 to 2005. During this period, he led a research project in collaboration between Unilever R&D and ICL. In 2005 he received the outstanding Unilever Corporate Review Award.

In March 2005 he received a Marie Curie ERG Fellowship (VIFP, EU) and joined the Department of Applied Physics at the UGR. At that time he started a new research line on Tribo-Rheology of Magnetic Fluids. He has led 14 research projects on the subject (>2.5 M€), funded by EU programs, Spanish Ministry (Materials Division) and Junta de Andalucía. In total he has participated in 41 Projects and 15 Industrial Contracts (Total Marketing Services, Maxamcorp Holding S. L., Unilever R&D, PDVSA, Repsol-YPF, Kolmer S.A., Rylesa, Polymat, Y-Flow and Operon). He has been advisor of three MSCA postdoctoral fellows: (EF-ST)-H2020-MSCA-IF-2017-Grant 795318, 2018-Grant 840195 and 2020-Grant 101030666. He has received the Research Award in Physics from the Academy of Mathematical, Physical-Chemical and Natural Sciences (2000), the Unilever Corporate Review Award (2005), the Outstanding Young Investigator Award from the Social Council (2008) and the Excellence in Research Award from the Vice-Rector's Office for Scientific Policy and Research at the University of Granada (2010).

Since 2020 he is the Director of The Singular Laboratory of Advanced Technologies F2N2lab at the UGR. His publication record contains peer-reviewed JCR papers (141, >90% in Q1), book chapters (33), patents (7, 2 PCT), books (5) and conference papers (204). 1 "*Highly Cited Paper*" (Soft Matter), 6 "*Review papers*" (Nanomaterials x2, e-rheo-iba, ChemPhysChem & Soft Matter x2), 2 "*Invited papers*" (J. Rheol. & Rheol. Acta), 2 "*Cover papers*" (J. Rheol. & Soft Matter), 3 invited papers for special issues (J. Rheol., Rheol. Acta & Soft Matter), 1 "*Recommended paper*" (Soft Matter), 1 "*Featured paper*" (J. Rheol.), 1 "*Influential Article. Highly-cited article*" (J. Rheol.), 1 "*Highlight*" (Smart Mater. Struct.), 1 "*Hot Paper*" (Soft Matter) and 1 "*Kaleidoscope*" (Phys. Rev. E).

He has been appointed as external advisor of the Deutsche Forschungsgemeinschaft (German Research Foundation), Research Foundation Flanders (FWO Holland), REPRISE - MIUR - CNGR (Italian Ministry of Education), Romanian National Council, Latvian Council of Science, Czech Science Foundation, Academy of Finland, King Abdullah University of Science and Technology (KAUST), Government Agency of National Science Centre (NCN Poland) and also evaluator for the AEI, ANEP and ANECA.

He has served as external evaluator of international PhD Theses and Tenure / Promotions at EU and US Universities. He is member of the Editor Panel of a total of 16 International Journals (e.g. Rheologica Acta and Frontiers in Materials) and serves as reviewer of >80 JCR journals. Currently, he is member of the Executive Committee of the Spanish Society of Rheology and the Spanish Group of Colloids and Interfaces (RSEF & RSEQ). Since 2021 he is Editor of Applied Rheology. He has been advisor of 15 Master Dissertations and 10 PhD Theses. He has participated in Committees of 6 International Conferences and has given Plenary Lectures in the most prestigious Conferences in MR fluids (e.g. 2012, 2014, 2016, 2018 and 2019 ERMIR International Conferences). Since July 2018 he is member of the International Organizing Committee of the International Conference on ER Fluids and MR Suspensions.

Part C. Relevant accomplishments

C.1. Publications

- J. R. Morillas and J. de Vicente, *Magnetorheology: a review*, Soft Matter, 2020. <https://doi.org/10.1039/D0SM01082K>. "**Invited review paper and Cover paper**".
- J. R. Morillas and J. de Vicente, *Magnetorheology in Saturating Fields*, Phys. Rev. E 99, 062604, 2019. "**EPL Poster Prize at IBEREO2019**".
- K. Shahrivar, J. R. Morillas, Y. Luengo, H. Gavilan, P. Morales, C. Bierwisch and J. de Vicente, *Rheological behavior of Magnetic Colloids in the Borderline between Ferrofluids and Magnetorheological Fluids*, J. Rheol. 63(4), 547–558, 2019. "**Cover paper**".
- J. R. Morillas and J. de Vicente, *Yielding Behavior of Model Magnetorheological Fluids*, Soft Matter, 15, 3330, 2019. "**Recommended paper**".
- S. Nardecchia, P. Sanchez-Moreno, J. de Vicente, J. A. Marchal & H. Boulaiz, *Clinical Trials on Thermosensitive Nanomaterials: an Overview*, Nanomaterials 9, 191, 2019. "**Invited review paper**".

- J. R. Morillas and J. de Vicente, *On the Yield Stress in Magnetorheological Fluids: a Direct Comparison between 3D Simulations and Experiments*, Composites Part B: Engineering 160, 626-631, 2019.
- J. R. Morillas, J. Yang and J. de Vicente, *Double-gap Plate-plate Magnetorheology*, J. Rheol. 62(6), 1485-1494, 2018. **"Featured paper"**.
- J. A. Ruiz-López, J. C. Fernández-Toledano, D. J. Klingenberg, R. Hidalgo-Alvarez and J. de Vicente, *Model Magnetorheology: a Direct Comparative Study between Theories, Particle-level Simulations and Experiments, in Steady and Dynamic Oscillatory Shear*, J. Rheol. 60(1), 61-74, 2016. **"Influential Article. Highly-Cited Article from 2016-2017"**.
- A. J. F. Bombard, F. R. Gonçalves, J. R. Morillas and J. de Vicente, *Magnetorheology of Dimorphic Magnetorheological Fluids based on Nanofibers*, Smart Mater. Struct. 23, 125013, 2014. **"Selected for the Smart Materials and Structures 'Highlights of 2014'"**.
- J. de Vicente, D. J. Klingenberg and R. Hidalgo-Álvarez, *Magnetorheological Fluids: A Review*, Soft Matter, 7, 3701-3710, 2011. **"Highly Cited Paper"**.

C.2. Research Projects and Grants

- Measuring Complex Fluids in Thin Lubricating Films Between Soft Surfaces. Unilever UK Central Resources Limited (CH-2003-0305). 01/03/2003-28/02/2005. 8,000 Sterling Pounds. Principal Investigator.
- Tribo-Rheology of Nanosized MR-Fluids. European Union (ERG 517604). Universidad de Granada. 31/08/2005-30/08/2007. 40,000 €. Principal Investigator.
- Materiales de Aplicación Nano y Biotecnológica: Tribo-Reología de Fluidos Magnéticos. MEC (MAT-2006-13646-C03-03). Universidad de Granada. 01/10/2006-30/09/2009. 91,960 €. Principal Investigator.
- Tribo-reología de Nuevos Fluidos MR. MICINN (MAT-2009-14234-C03-03). Universidad de Granada, Universidad de Extremadura, Universidad Nacional del Litoral (Argentina) and UNIFEI (Brasil). 01/01/2010-31/12/2010. 14,520 €. Principal Investigator.
- Confined Magnetorheological Fluids. MICINN (MAT-2010-15101). Universidad de Granada, Universidad de Extremadura, Universidad Nacional del Litoral (Argentina) and UNIFEI (Brasil). 01/01/2011-31/12/2013. 193,600 €. Principal Investigator.
- Dinámica de Fluidos Magneto-reológicos en la Microescala. Junta de Andalucía (P11-FQM-7074). Universidad de Granada, ICMN (CSIC, Madrid) and Universidad de Islas Baleares. 27/03/2013-26/03/2017. 148,588.82 €. Principal Investigator.
- Self-assembly and Yielding Behavior of Magnetorheological Fluids in Strongly Confined Flows. MINECO (MAT-2013-44429-R). Universidad de Granada, Universidad de Extremadura, Universidad Nacional del Litoral (Argentina), UNIFEI (Brasil), Universidad de Reading (Inglaterra) and Universidad de Paris (Francia). 01/01/2014-31/12/2016. 197,551.02 €. Principal Investigator.
- Simulation-assisted Design and Characterization of Abrasive Magnetic Suspensions for High Precision Finishing. MINECO, H2020 ERA-NET.NET (PCIN-2015-051). Fraunhofer IWM (Alemania), Universidad de Friburgo (Alemania) and Universidad de Granada. 01/09/2015-31/08/2018. 125,000 €. Principal Investigator.
- Particle Dynamics in Magneto-fluidic Microsystems. MINECO (MAT-2016-78778-R). Universidad de Granada, Universidad Nacional del Litoral (Argentina), UNIFEI (Brasil), Universidad de Reading (Inglaterra) and Universidad de Burdeos (Francia). 30/12/2016-29/12/2019. 175,000 €. Principal Investigator.
- Triaxial Magnetic Fields for the Control of Bioactive Materials in Bone Engineering. European Union (EF-ST)-H2020-MSCA-IF-2017, EU, Grant 795318. Universidad de Granada, 01/09/2018-31/08/2020. 170,121.6 €. Co-principal Investigator.
- Structure and Dynamics in Active Glass-forming Liquids. European Union. (EF-ST)-H2020-MSCA-IF-2018, EU, Grant 840195. Universidad de Granada. 01/06/2019-31/05/2021. 160,932.48 €. Co-principal Investigator.
- Reomicroscopio Confocal de Alta Velocidad. Adquisición de equipamiento científico-técnico del subprograma estatal de infraestructuras de investigación y equipamiento científico-técnico (Plan Estatal I+D+I 2017-2020). (EQC2019-005529-P). Universidad de Granada. 01/01/2019-31/12/2021. 522,404.55 €. Principal Investigator.
- Magneto-reología en Campos Triaxiales no Estacionarios. Junta de Andalucía (P18-FR-2465). Universidad de Granada. 94,800 €. Principal Investigator.

- Autoensamblado y Propiedades Reológicas de Coloides Magnéticos en Campos no Estacionarios. MICINN (PID2019-104883GB-I00). Universidad de Granada. 01/06/2020-30/05/2023. 139,150.00 €. Principal Investigator.
- Flow-Induced Layer Formation in Dipolar Non-brownian Fluids. EUSMI - European Soft Matter Infrastructure (E200700433). Universidad de Granada and Universidad de Creta. 2020. Principal Investigator.

C.3. Contracts

- Formulación de Fluidos de Base Oleosa con Propiedades Reológicas Controlables por Campos Magnéticos, para su Aplicación en Amortiguadores de Automoción. REPSOL-YPF S.A. 15/02/2003-14/02/2005. Principal Investigator: F. González-Caballero. 46,624.6 €.
- Measuring Complex Fluids in Thin Lubricating Films Between Soft Surfaces (CH-2003-0305). Unilever UK Central Resources Limited. 01/03/2003-28/02/2005. Principal Investigator: J. de Vicente. 8,000 Sterling Pounds.
- Síntesis de Ligantes para Soportes Universales y Dispersiones Acuáticas con Nanocompuestos (IDI-20070721). Kolmer S. A. 02/10/2007-01/10/2009. Principal Investigator: R. Hidalgo-Álvarez. 29,999 €.
- Ligante Especial de Altas Prestaciones para Pinturas Insecticidas y Dispersiones Poliméricas con Nanopartículas (IDI-20100378). Kolmer S. A. 2010-2012. Principal Investigator: Roque Hidalgo Álvarez. 30,000 €.
- Curso de Fenómenos Interfaciales en la Explotación de Yacimientos Petrolíferos. Contrato de Servicios Docentes nº 2996. Petróleos de Venezuela S.A. (PDVSA). Four editions 2011, 2012, 2013 and 2014. Principal Investigator: M. A. Rodríguez-Valverde. 4,500 €/Edition.
- Ensayos y Microfotografías de Muestras de Naturaleza Polimérica y Nanopartículas. Kolmer S.A. 2012-2014. Principal Investigator: Roque Hidalgo Álvarez. 20,000 €.
- Desarrollo de Emulsiones a base de Disoluciones de Grafeno y de otras Nanopartículas especiales (IDI-20151057). Kolmer S. A. 2016-2018. Principal Investigator: Roque Hidalgo Álvarez. 30,000 €.
- Confidentiality Agreements with EQA and DNV. 2014 & 2015.
- Design of Smart Lubricants using the Inverse Ferrofluid Approach (U16-055). Total Marketing Services. 2018-2019. Principal Investigator: Juan de Vicente. 97,200 €.

C.4. Patents and other IPR

- L. Elvira, F. Montero de Espinosa Freijo, J. Rodríguez-López, G. Bossis and J. de Vicente. Procedimiento Ultrasónico-reológico para la Determinación del Esfuerzo Umbral Dinámico en Materiales con Comportamiento Plástico. Application number: P201330184. Priority country: España. Date: 13/02/2013. Holder entities: CSIC, Universidad de Niza and Universidad de Granada.
- F. Rodríguez de Fonseca, F. J. Pavón Morón, A. Serrano Criado, M. Romero Cuevas, M. Wulff Pérez, M. J. Gálvez Ruiz, A. Martín Rodríguez and J. de Vicente. Formulaciones Basadas en Nanoemulsiones y su Uso para el Tratamiento de la Obesidad. Application number: P201330233/PCT. Priority country: España. Date: 20/02/2013. Holder entities: Fundación Pública Andaluza para la Investigación de Málaga en Biomedicina y Salud (FIMABIS) and Universidad de Granada. PCT application: P201330233/PCT.
- L. Elvira, F. Montero de Espinosa Freijo, J. Rodríguez-López and J. de Vicente. Método para la Estimación del Desalineamiento de Placas en Reómetros Utilizando Ultrasonidos. Application number: P201330311. Priority country: España. Date: 05/03/2013. Holder entities: CSIC and Universidad de Granada.
- J. de Vicente and K. Shahrivar. Fluidos Magneto-reológicos Termosensibles. Application number: P201331128. Priority country: España. Date: 24/07/2013. Holder entity: Universidad de Granada. PCT application: PCT/ES2014/070602.
- F. J. Galindo-Rosales, J. P. Segovia-Gutiérrez, F. M. Coutinho Tavares de Pinho, M. A. Moreira Alves and J. de Vicente. Extensional Magnetorheological Fixture (ExMaRF). Application number: NPAT/178/13. Priority country: Portugal. Date: 26/07/2013. Holder entities: University of Porto and Universidad de Granada.
- J. de Vicente, J. R. Morillas and A. J. F. Bombard. Suspensiones Bimodales dentro del Límite Multidominio con Efecto Magneto-reológico Mejorado. Application number: P201830726. Priority country: España. Date: 18/07/2018. Holder entities: UNIFEI and Universidad de Granada.
- J. A. Marchal, C. Chocarro-Wrona, E. López-Ruiz, J. de Vicente, C. Antich, D. Martínez-Moreno, G. Jiménez and M. Perán. Título: Biomaterial for use in the Treatment of Diseases Involving Tissue Repair or Regeneration. Application number: P202030939. Priority country: España. Date: 16/09/2020. Holder entities: Universidad de Granada.