

Fecha del CVA	10-05-2026
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Parte A. PERSONAL INFORMATION

First name	RUPERTO		
Family name	BERMEJO ROMÁN		
Gender		Date of Birth	
e-mail		URL Web	
Open Researcher and Contributor ID (ORCID) (*)	0000-0002-8960-3232		

A.1. Current position

Position	Associate Professor (Profesor Titular de Universidad)		
Initial date	14-10-2003		
Institution	University of Jaén (UJA)		
Department/ Center	Physical and Analytical Chemistry / EPS Linares		
Country	Spain	Phone	953648625
Key words	Purification-Characterization, biomolecules, foods, additives		

A.2. Previous positions (research activity interruptions, see call)

Periodo	Puesto/ Institución/ País / Motivo interrupción
1992-1996	Predoctoral Fellow of the Ministry of Education and Science (Univ. Granada)
1999-2000	Postdoctoral researcher (University of Padua, Italy)
1996-2003	Assistant Lecturer (UJA) Profesor Ayudante de Facultad. Univ. Jaén

(Incorporar todas las filas que sean necesarias)

A.3. Education

Degree/Master/Tesis	Universidad/País	Año
Bachelor's Degree in Chemical Sciences (Licenciado en C. Químicas)	University of Granada	1992
PhD Chemistry (Doctor en Químicas)	University of Granada	1997

Parte B. CV SUMMARY (máx. 5000 characters including spaces):

He earned his Bachelor's Degree in Chemical Sciences (1992) and his Ph.D. in Chemical Sciences (1997) from the University of Granada. He was a Pre-doctoral Research Fellow in the "Plan de Formación de Personal Investigador" from 1992 to 1996 (an FPI Fellowship from the Ministry of Education and Science, MEC). In 1996, he joined the University of Jaén as an Assistant Professor and has been an Associate Professor in the area of Physical Chemistry since 2003. He has conducted research and teaching visits, maintaining collaborations, at the University of Padua (Italy), Kean University (USA), and Al Jouf University KSA (Kingdom of Saudi Arabia), in addition to the Spanish universities of Almería and Granada. In October 2025, he obtained the National Accreditation for the University Full Professor body.

Scientific Contributions: Since 1992, his research has focused on "Purification, Spectroscopic and Structural Characterization, and Development of Applications for High-Value-Added Biotechnological Compounds." Furthermore, he develops research lines based on olive oils enriched with novel antioxidants. He has supervised 4 Doctoral Theses (three of them with European Mention), 7 Introductory Research Memoirs (Undergraduate Theses and DEAs), 8 Bachelor's Theses (TFG), and 2 Master's Theses (research track, TFM). He has been the Principal Investigator on 7 funded Research Projects (from the National Ministry, Regional Government of Andalusia, CTA, and the University of Jaén). Additionally, he has been a collaborating researcher on 14 other national and regional projects and has developed several R&D contracts with private companies. He is a co-author of 53 scientific articles (JCR-indexed; 29 Q1: 8 Q2: 15 Q3) and 2 invention patents. He has presented 98 contributions at International and National Conferences (41 oral presentations: 3 invited lectures) H-index:22 (1842

citations). He currently holds four positive research assessments (four six-year research periods). He has also published 2 book chapters, 1 complete book on Olive Oils Enriched with Antioxidants, and a chapter in another book dedicated to fluorescent proteins. He is a member of the Spanish Carotenoid Network (Cared).

Contributions to Society: He has collaborated with private-sector biotech companies by signing specific contracts for the development of projects related to the industrial-scale production of new natural colorants and the formulation of new functional foods based on extra virgin olive oils enriched with bioactive compounds. Regarding research outreach: He was the responsible coordinator for the activities of the Science Week at the University of Jaén's Linares Campus from 2008 to 2020. Since 2010 to the present, he has participated continuously in the European Researchers' Night, delivering specific micro-meetings and developing workshops showcasing various experiments related to chemistry research. He was awarded the First "Luis Vañó" Oleiculture Research Prize for his contribution to the study of extra virgin olive oils (2013). He has received the University of Jaén Entrepreneurs Award twice for research ideas applied to the business reality in the food additives sector (2008 and 2013). He has led two Science-IES research projects (initiation to research in Secondary Education) to bring high school students closer to science.

Contributions to Training: He has supervised 19 students, primarily from the Chemistry and Chemical Engineering degrees, for their introductory research projects (Undergraduate Theses, DEAs, etc.), as well as Master's students. He has also supervised 4 Doctoral Theses to date, three of which received the European Doctorate Mention. He has supervised three individuals hired under university-business collaboration projects. He leads the Research Group FQM-337 (PAIDI) at the University of Jaén's Linares Campus, constituting a research team that consolidates lines within the biotechnology and food sectors. He serves as an editor for research journals and is a reviewer/advisor for Projects of the ANEP (Spain), the Regional Government of Galicia (Junta de Galicia), and the Ministry of Science and Technology of the Argentine Republic. He is also a reviewer for articles in more than 10 prestigious international journals (JCR).

Parte C. RELEVANTS MERITS

C.1. Key research papers.

AUTHORS: A. B. García, Eleonora Longo, M^a Carmen Murillo and Ruperto Bermejo (2021) "Using a B-phycoerythrin extract as natural colorant: application in milk-based products" *Molecules* Vol. 26, 297 (DOI:10.3390/molecules26020297)

AUTHORS: M^a Carmen Murillo, Mariela Chova and Ruperto Bermejo (2021) "Effect of adding fungal β -carotene to Picual extra virgin olive oils on their physical and chemical properties" *Journal of Food Processing and Preservation*, 45 (Issue 2) e15186. (doi.org/10.1111/jfpp.15186)

AUTHORS: Ana B. García, Eleonora Longo and Ruperto Bermejo. (2021) "Using a C-phycoerythrin extract as natural colorant: application in beverages", *Journal of Applied Phycology*, 33(5), 3059-3070 (DOI: 10.1007/s10811-021-02522-z).

AUTHORS: Bárbara Micó-Vicent, Esther Perales Romero, Ruperto Bermejo, Jorge Jordán-Núñez, Valentin Viqueira and Jorge Pérez (2021). "Using laminar nanoclays for phycoerythrin and phycoerythrin stabilization as new natural hybrid pigments from microalgae extraction" *Applied Sciences*, 11, 11992. (<https://doi.org/10.3390/app112411992>)

AUTHORS: M^a Carmen Murillo, Ana B. García, Tomás Lafarga, Manuel Melgosa and Ruperto Bermejo. (2022) "Color of extra virgin olive oils enriched with carotenoids from microalgae: influence of ultraviolet exposure and heating" *Grasas Aceites* 73 (2), e 455. (DOI:10.3989/gya.0104211).

AUTHORS: M^a Carmen Murillo, Nuno Rodrigues, Ruperto Bermejo, Ana C.A. Veloso, Antonio M. Peres, Jose A. Pereira. (2022) "A potentiometric electronic tongue as a tool for assessing the impact of the beta-carotene or lutein fortification on cv. Arbequina olive oils" *European Food Research and Technology* 248:1287-1298 (DOI:10.1007/s00217-022-03964-6).

AUTHORS: Morillas A., Bermejo R., Abdala, R.T., Ruíz A., Lafarga, T., Acién, G. and Fernández-Sevilla, J.M. (2022) "Biorefinery approach applied to the production of foods colourants and biostimulants from *Oscillatoria* sp." *Biology*, 11, 1278. (DOI: 10.3390/biology/11091278)

AUTHORS: Raquel Carmona, M.C.Murillo, Tomás Lafarga and Ruperto Bermejo **(2022)**
“Assessment of the potential of microalgae-derived phycoerythrin as a natural colorant in beverages” *Journal of Applied Phycology* (DOI: 10.1007/s10811-022-02834-8) 34: 3025-3034

AUTHORS: M^o Carmen Murillo-Cruz., Nuno Rodrigues, Maria Ines Dias, Ruperto Bermejo-Román, Ana C.A. Veloso, Jose Alberto Pereira and Antonio Peres **(2022)**. “Monovarietal olive oils fortified with carotenoids: physicochemical and sensory trends and taste sensor evaluation” *J. Am. Oil Chem. Soc.* DOI:10.1002/aocs.12650) 99; 1113-1126.

AUTHORS: Silvia Villaró, Sergio Jiménez-Márquez, Evan Musari, Ruperto Bermejo, Tomás Lafarga **(2023)**. “Production of enzymatic hydrolysates with in vitro antioxidant, antihypertensive, and antidiabetic properties from proteins from *Arthrospira platensis*”. *Food Research International*. DOI: 10.1016/j.foodres.2022.112270.

AUTHORS: M. Melgosa, F. J. Rodríguez-Pulido, L. Gómez-Robledo, M. Tejada-Casado, R. Bermejo, S. M. A. Murillo, F. J. Heredia. TÍTULO: Instrumental color measurements of automotive samples with convex cylindrical curvatures under diffuse lighting.

Ref. revista: *Optica Pura y Aplicada*, 57 (1) 51166 (2024) **(2024)**

AUTHORS: Daniel López-Rodríguez, Jorge Jordan, Ruperto Bermejo, Bàrbara Micó-Vicent and Antonio Belda. TÍTULO: Adsorption of natural dye phycocyanin by means of Laponite®: Synthesis and characterization of the hybrid obtained.

REF. REVISTA: *Cerámica y Vidrio*. (64) 70-85. **(2025)**

AUTHORS: Ruperto Bermejo, M^o Carmen Murillo, M^a Carmen Hurtado, Silvia Villaró, Tomás Lafarga y Gabriel Acién. TÍTULO: Simplified two-stage method for the recovery of B-phycoerythrin from *Porphyridium cruentum* and evaluation as a natural colourant.

REF. REVISTA: *Food and Bioprocess Technology*, 184, 6743-6751. **(2025)**

AUTHORS: Ruperto Bermejo Román, M. Carmen Hurtado, Javier Garrido Romero, Cintia Gomez Serrano, Cynthia González López, Gabriel Acién, Ivet Ferrer, Scalable two-stage recovery of C-phycoerythrin from *Synechocystis salina* via tangential ultrafiltration for sustainable textile dyeing, *Algal Research*, **2026**, 104683, ISSN 2211-9264, <https://doi.org/10.1016/j.algal.2026.104683>.

C.2. Main Conferences and Symposia (*conferencia invitada, presentación oral, póster*)

Authors: Ruperto Bermejo, M^a Carmen Murillo-Cruz y Mariela Chova-Martínez.

Título: Effect of adding bioactive extracts to extra virgin olive oils on their stability and carotenoids fraction. **(Oral presentation)**. London (UK) July **2021**

Congreso: “2nd Edition- Global Virtual Conference on Food and Nutrition”.

Authors: Raquel Carmona, Irene Blanco y Ruperto Bermejo. Título: Color-based sensory tests for the evaluation of foods and beverages containing phycoerythrin extract as natural dye. **(Oral presentation)**. Tarrasa (Spain) Junio **2022**

Congreso: XIII Congreso Nacional del Color.

Authors: Ruperto Bermejo, Irene Blanco, M^a Carmen Murillo y Raquel Carmona.

Título: Spectroscopic monitoring of the stability of phycoerythrin dye extract: influence of temperature, pH, light exposure and preservatives. **(Oral presentation)**. Malaga (Spain) Julio **2022** Congreso: XI Congreso Ibérico de Espectroscopía.

Authors: Ruperto Bermejo, María del Carmen Murillo, Raquel Carmona, Mariela Chova, José María Fernández-Sevilla, Gabriel Acién

Título: Functional foods based on extra virgin olive oil enriched with carotenoids. Global Summit in Food Science and Technology. **(Invited lecture)**. Roma (Italia). **Marzo 2023**.

Authors: Ruperto Bermejo Román, María del Carmen Murillo, María del Carmen Hurtado, Félix López y Nathalie Korbee. Gabriel Acién

Título: Characterization and stability studies of algae derived phycoerythrins using fluorescence spectroscopy. **(Oral presentation)**. Valencia Septiembre **2024**. MAF 24, 18 Conference in Methods and Applications in fluorescence.

Authors: Ruperto Bermejo, M^a Carmen Murillo, Tomás La Farga, Gabriel Acién

Título: “Separation and purification of algae-derived additives for the food industry, using membrane processes” **(Oral presentation)**. Octubre **2024**. 5th Iberoamerican congress on Biorefineries (5th-CIAB)

Authors: Ruperto Bermejo Román, M^a Carmen Murillo, M^a Carmen Hurtado, Fini Sánchez, Ana Roldan y Gabriel Acién. Título: Alimentos y bebidas fortificados con pigmentos de algas

y hongos: un estudio colorimétrico y de evaluación del consumidor. (**Oral presentation**). Mérida **2025**. XIV Congreso nacional del Color.

C.3. Main Research projects.

-Project Title: “Microalgas para la producción sostenible de bioproductos y agua regenerada (AL4BIO)”.Entidad financiadora: Ministerio de Ciencia e Innovación.Código: RTI2018-099495-A-C22.Duración: 1-1-2019/31-12-2021. Cuantía de la subvención: 135.520 €. Role-participation: Research team member. IP: Cynthia V. González López (Universidad de Almería).

-Project Title: Producción sostenible de bioproductos a partir de cianobacterias tratando efluentes residuales. (Cyan2Bio).Entidad financiadora: Ministerio de Ciencia e Innovación Código: PID2021-126564OB-C31. Duración: 01/09/2022-31/08/2025. Cuantía: 145.000 €. Role participation: research team member. IPs: Gabriel Acien Fernández y Cynthia Victoria González López

-Project Title: Sondas luminiscentes para nanoscopia de agregación amiloide (AMYNanosens).Junta Andalucía. PAIDI 2020. Convocatoria 2021 Código: P21_00212 Duración: 01/12/2022 Fecha finalización (prevista): 31/12/2025 Cuantía de la subvención: 157.607 € Role participation: research team member. IP: Juan A. González Vera.

-Project Title: Producción a gran escala de alimentos funcionales relacionados con las algas para una sociedad más sostenible y saludable (ALGA-HUB).Convocatoria 2021“Proyectos de Transición Ecológica y Transición Digital” Tipo de proyecto: coordinado. Ministerio de Ciencia e Innovación.Código: Referencia: TED2021-131555B-C21. Duración: 01/12/2022-31/11/2024.Cuantía de la subvención: 186.300 € **Rol: Investigadores responsables:** Gabriel Acien Fernández y Ruperto Bermejo Román.

-Project Title: Sustainable inland production of macroalgae for feed-related applications (SUMAPRO). Junta Andalucía. Financiado por Union Europea Next Generation. Convocatoria 2023 Código: Referencia: PCM0082 Duración: 01/12/2023-1/12/2026.Cuantía de la subvención: 193.775 € Role participation: research team member. IP: Cintia Gomez Serrano.

-Project Title: Sustainable production of food ingredients and agricultural products following a microalgal bio refinery approach (Solar-foods). Ministerio de Ciencia e innovación. Convocatoria: Proyectos de Generación de Conocimiento 2022. Código: PID2022-136292OB-I00.Duración: 01/09/2023-31/08/2026 Role participation: research team member. Cuantía de la subvención: 188.420 € IPs: Tomas Lafarga y José María Fernandez Sevilla

C.4. Technology transfer and results exploitation activities (Patents and Contracts).

Patents

Title: Process for the Obtaining and Purification of B-Phycoerythrin

Inventors: Ruperto Bermejo, Francisco G. Acien, M^a José Ibáñez, José M^a Álvarez-Pez, Emilio Molina.Application No.: P200201398Publication No.: 2197820 (Granted: 2005)

Owning Entity: University of Jaén, University of Almería, University of Granada

Title: Scalable Process for the Obtaining of Phycocyanin

Inventors: Ruperto Bermejo, Francisco G. Acien. Application No.: PCT/ES2008/000654, P200702782 (Granted: 2010) Publication No.: WO2009050319Publication Date: 23 Apr 2009

Research Contracts

Title: "Obtaining, Characterization and Applications of New Functional Foods Based on Olive Oils Enriched with Novel Antioxidants"

Reference: UJA-2018/0013221.Funding Company/Administration: CASTILLO DE CANENA OLIVE JUICE S.L.Participating Entities: University of Jaén and Castillo de Canena Olive Juice Duration: 01/11/2018 to 31/12/2022.Contract Amount: 115.170 €.

Principal Investigator: Ruperto Bermejo Román (University of Jaén)

Title: "PHYCOALGAE: Industrial Research Project for Process Design and Pilot Scaling for the Extraction, Concentration, Purification and Stabilization of Phycobiliproteins from Marine Microalgae"

Reference: CTA-19/1006

Funding Company/Administration: ALGAENERGY

Duration: 01/07/2019 to 18/12/2022

Contract Amount: 70.268 €

Principal Investigator: Ruperto Bermejo Román (University of Jaén)