CURRICULUM VITAE (CVA)

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Part A. PERSONAL INFORMATION

CV date	17/01/2026

First name	Koro		
Family name	de la Caba Ciriza		
Gender (*)	Female		
Open Researcher and Contributor ID (ORCID) (*)		0000-0002-8866-7314	

(*) Mandatory

A.1. Current position

Position	Full Professor
Initial date	13/11/2020
Institution	University of the Basque Country (UPV/EHU)
Department/Center	Chemical and Environmental Engineering/Engineering School of Gipuzkoa
Keywords	Valorization, biowastes, biopolymers, bioeconomy, sustainable manufacture, one health approach.

A.2. Previous professional status (including breaks in research career, according to what is indicated in the call, indicate total months)

Period	Position/Institution/Country/Interruption cause
2024-	Coordinator of the Chemical and Environmental Engineering Department, UPV/EHU, Spain
2020-	UPV/EHU Research Associate, BCMaterials, Spain
2020-2022	Academic Secretary of Summer Courses, UPV/EHU, Spain
2015-2021	Associate Editor of Food Hydrocolloids, UK
2010-2013	Research Committee Member, UPV/EHU, Spain
2005-2007	Academic Secretary of the Engineering School of Gipuzkoa, UPV/EHU, Spain
2001-2020	Associate Professor, UPV/EHU, Spain
1993-2001	Assistant Professor, UPV/EHU, Spain

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
Extraordinary Doctoral Award	UPV/EHU, Spain	2000
PhD in Sciences	UPV/EHU, Spain	1998
Licensed in Chemical Sciences	UPV/EHU, Spain	1991

Part B. CV SUMMARY *(max. 5000 characters, including spaces)*

Koro de la Caba is Full Professor at the Department of Chemical and Environmental Engineering in the Engineering School of Gipuzkoa and UPV/EHU Research Associate at BCMaterials. Since 2012 she is the head of BIOMAT research group, awarded as type A+ research group by the Basque Government (IT1658-22). Her main research interests address various aspects of bio-based materials, from the extraction of raw materials to the end of life of products. In this research area, she has supervised 12 PhD students (Cum Laude, International Mention), 3 of them in co-tutelle with Universidade Federal do Rio Grande do Sul (Brazil), Prince of Songkla University (Thailand), and Universidade Federal do Paraná (Brazil); currently, she supervises 3 PhD students and tutors 2 PhD students. Within the frame of international collaborations, she has realized scientific stays in Budapest Neutron Center,

Hungary (2025); Universidade do Minho, Portugal (2025); Buenos Aires University, Argentina (2023); Nha Trang University, Vietnam (2018); the University of Auckland, New Zealand (2018); Universidade Federal do Rio Grande do Sul, Brazil (2015, 2016, 2018), and University College Cork, Ireland (2011, 2012, 2013, 2014). In the last 6 years (2020-2025), she has participated in 22 R&D projects funded through competitive calls, leading 20 of them; she has also leaded 14 R&D contracts with private entities. In this context, she has published 70 peer reviewed papers (70 Q1), 37 of them in first decile journals (53 % D1), from 2020 to 2025. She has a h-index of 52 and she is listed among the World's Top 2% Scientists by the Stanford university ranking. Additionally, she is co-inventor of 2 European patents and she is involved in PROTEINMAT spin-off, awarded Manuel Laborde Werlinden prize for new business initiatives in 2021.

Part C. RELEVANT MERITS

C.1. Publications *(*Corresponding Author)*

1. M. Uribarrena, S. Cabezudo, R. Nuñez, G. Copello, **K. de la Caba*,** P. Guerrero*. Development of smart films based on soy protein and cow horn dissolved in a deep eutectic solvent: physicochemical and environmental assessment. International Journal of Biological Macromolecules, 291, 139045 (2025) https://doi.org/10.1016/j.ijbiomac.2024.139045
2. L.H. Reichembach, C.L. de Oliveira Petkowicz, P. Guerrero, **K. de la Caba*.** Pectin and pectin/chitosan hydrogel beads as coffee essential oils carrier systems. Food Hydrocolloids, 151, 109814 (2024) https://doi.org/10.1016/j.foodhyd.2024.109814
3. L.H. Reichembach, P. Guerrero, C.L. de Oliveira Petkowicz, **K. de la Caba*.** Valorization of pectins from coffee wastes for the development of pectin-chitosan films. Carbohydrate Polymers, 334, 122057 (2024) https://doi.org/10.1016/j.carbpol.2024.122057
4. M. Uribarrena, M. Peñalba, P. Guerrero*, **K. de la Caba*.** Valorization of chitin using a natural deep eutectic solvent for the development of active gelatin films. Food Packaging and Shelf Life, 46, 101376 (2024) https://doi.org/10.1016/j.fpsl.2024.101376
5. M. Uribarrena, E. Rovira-Cal, L. Urbina, M.J. Suárez, E. Aymerich, P. Guerrero, **K. de la Caba*,** A. Etxabide*. Valorization of cheese whey: closing the loop from protein extraction to whey protein film composting. Green Chemistry, 26(7), 4103-4111(2024) https://doi.org/10.1039/D3GC04304E
6. J. Uranga, I. Leceta, P. Guerrero*, **K. de la Caba*.** Closing the loop: Waste valorisation from vegetal sources to develop fruit active films *Food Hydrocolloids*, 152, 109951 (2024) https://doi.org/10.1016/j.foodhyd.2024.109951
7. I. Zarandona, D.M. Correia, J. Moreira, C.M. Costa, S. Lanceros-Mendez*, P. Guerrero*, **K. de la Caba.** Magnetically responsive chitosan-pectin films incorporating Fe_3O_4 nanoparticles with enhanced antimicrobial activity. International Journal of Biological Macromolecules, 227, 1070-1077 (2023) https://doi.org/10.1016/j.ijbiomac.2022.11.286
8. T. Carranza, P. Guerrero, **K. de la Caba***, A. Etxabide*. Texture-modified soy protein foods: 3D printing design and red cabbage effect. Food Hydrocolloids, 145, 109141 (2023) https://doi.org/10.1016/j.foodhyd.2023.109141
9. M. Andonegi, D. Correia, N. Pereira, M. Salado, C.M. Costa, S. Lanceros-Mendez, **K. de la Caba*,** P. Guerrero. Sustainable Collagen Blends with Different Ionic Liquids for Resistive Touch Sensing Applications. ACS Sustainable Chemistry and Engineering, 11(15), 5986-5998 (2023) https://doi.org/10.1021/acssuschemeng.3c00052
10. J. Uranga, T. Carranza, M. Peñalba, **K. de la Caba*,** P. Guerrero*. Valorization of agar production residue as a filler in soy protein hydrogels for 3D printing. International Journal of Bioprinting, 9(4), 731 (2023) https://doi.org/10.18063/ijb.731

C.2. Conferences

1. K. de la Caba. Chitin and Chitosan for Health-Related Applications: Extraction, Characterization and Processing. 16th International Conference on Chitin and Chitosan. Hernosillo, Mexico, 2025. Plenary Lecture.

2. K. de la Caba. The importance of biopolymers' characterization to understand the performance of bio-based products. Center for Energy Research Workshop. Budapest, Hungary, 2025. Invited speaker.
3. K. de la Caba. Whey valorization to develop active food packaging. XII Workshop on Food Security. Vitoria-Gasteiz, Spain, 2025. Invited speaker.
4. K. de la Caba. Valorization of dairy industry by-products: from protein extraction to compostable films. BiPoCo 2024. 5th International Conference on Bio-based Polymers and Composites. Esztergom, Hungary, 2024. Invited speaker.
5. K. de la Caba. Tuning the properties of biopolymers: from biowaste towards more sustainable advanced materials. 48th-FEBS Federation of European Biochemical Societies Congress. Milan, Italy, 2024. Invited speaker.
6. K. de la Caba. From abundant biowaste to the development and validation of bio-based products. BCMaterials Workshop. Leioa, Spain, 2024. Invited speaker.
7. K. de la Caba. Potencial de proteínas y polisacáridos valorizados de biorresiduos para aplicaciones en sectores estratégicos. XV Simposio Argentino de Polímeros. Mar del Plata, Argentina, 2023. Plenary Lecture.
8. K. de la Caba. Alternative biowaste sources to develop sustainable chitin- and chitosan-containing biocomposites. 14th International Conference of the European Chitin Society (EUCHIS 2023) and 15th International Conference on Chitin and Chitosan (ICCC). Siglufjörður, Iceland, 2023. Plenary Lecture.
9. K. de la Caba. New generation of advanced materials with improved sustainability. New Materials for a Better Life! 2022. Leioa, Spain, 2022. Invited speaker.
10. K. de la Caba. Circular Food: From food waste to active food packaging. VIII Workshop on Food Security. Markina-Xemein, Spain, 2021. Invited speaker.

C.3. Research projects

1. Valorization of Squid Pens and Fruit Fly Pupae to develop Hydrogels for dermal bioproducts and functional foods (PID2024-155507OB-C22). Ministry of Science and Innovation, PI: Koro de la Caba, 170,000 €, 2025-2029.
2. Waste to treasure: using novel chemistry to valorise residual plant materials, Ministry of Business, Innovation and Employment, New Zealand, Partners: University of Auckland, New Zealand Forest Research Institute (SCION), UPV/EHU. PI: Paul Kilmartin, $9,800,000 (5,422 €), 2023-2028.
3. SELFAQUASENS-Advanced manufacturing of self-sensing bio-based membranes for environmental detoxification and revalorization (HORIZON_MSCA-SE-2022 101131379), UE, Partners: BCMaterials, UPV/EHU, Universidade do Minho, Proteinmat materials SL, Wise4automation LDA, Universidad de Buenos Aires, Universidad de Huelva, University of the Free State, United Kingdom Research and Innovation, Energia Tudomankyi Kutatokozpont. PI: Roberto Fernández de Luis (coordinator, BCMaterials), Koro de la Caba (PI, UPV/EHU), 851,000 € (119,600 €, UPV/EHU), 2024-2027.
4. BIWIN2-Bioprocesos y procesos sostenibles con potencial escalabilidad para la obtención de materiales de interés industrial a partir de biomasas residuales (KK-2025/00050). Basque Government, Partners: Gaiker, CEIT, BCMaterials, Tecnalia, Neiker, UPV/EHU. PI: Maria José Suarez (Coordinator, Gaiker), Koro de la Caba (PI, UPV/EHU), 976,038 € (119,273 €, UPV/EHU), 2025-2026.
5. Development of innovative and sustainable electroactive materials for energy storage and tissue engineering (PID2021-124294OB-C22). Ministry of Science and Innovation, PI: Koro de la Caba, 114,950 €, 2022-2025.
6. X-ray and neutron scattering analyses of biopolymer membranes: investigate changes in structure with manufacturing (HORIZON-INFRA-2021-SERV-01 101058414), UE, Partners: UPV/EHU, UK Research and Innovation (UKRI), Swiss State Secretariat for Education, Research and Innovation (SERI), PI: Koro de la Caba (UPV/EHU), Yi Zhang (ISIS), 2024-2025.
7. BIO4CURE-Research into enabling technologies for intraoperative 4D bioprinting of customised precision grafts (KK-2022/00019). Basque Government, Partners: Tecnalia, IIS Biocruces, Vicomtech, UPV/EHU. PI: Arantxa Renteria (Coordinator, Tecnalia) Koro de la Caba (PI, UPV/EHU), 613,920 € (110,482 €, UPV/EHU), 2022-2023.

8. INDESMOF-International network on ionic liquid deep eutectic solvent based metal organic frameworks mixed matrix membranes (H2020_MSCA-RISE17/05), UE, Partners: BCMaterials, UPV/EHU, Universitá degli Studi di Torino, Universidad de Buenos Aires, Universidad de Chile, Ura, Teknimap, University of California. PI: Roberto Fernández de Luis (coordinator, BCMaterials), Maribel Arriortua (PI, UPV/EHU), 774,000 € (225,000 €, UPV/EHU), 2018-2023.
9. CIRCULAR BIOBASED-Research in biobased materials and processes for the Basque bioeconomy strategy (KK-2021/00131). Basque Government, Partners: Gaiker, CEIT, BCMaterials, Tecnalia, Neiker, UPV/EHU. PI: Maria José Suarez (Coordinator, Gaiker), Koro de la Caba (PI, UPV/EHU), 619,787 € (75,004 €, UPV/EHU), 2021-2022.
10. ACTIFILM-Development of added-value, innovative and sustainable active films from biowastes (RTI2018-097100-B-C22), Ministry of Science and Innovation, PI: Koro de la Caba, 181,500 €, 2019-2022.

C.4. Contracts, technological or transfer merits

1. Industrial & Intelectual property. Ander Izeta, Carlos Chiesa, Ainhoa Irastorza, Koro de la Caba, Pedro Guerrero. Biomaterial film, uses and preparation method (EP24382019), Biogipuzkoa HRI, UPV/EHU.
2. Industrial & Intelectual property. Rosa Hernandez, Edorta Santos, Manoli Igartua, Kevin Las Heras, Jon Jimenez, Koro de la Caba, Pedro Guerrero, Alaitz Etxabide. Sponge-like scaffold for promoting haemostasis (EP22789191.8), UPV/EHU.
3. Optimización térmica y reológica de colágeno para regeneración tisular. Ekolber S.L., 6.800 €, 18/09/2023-17/03/2024, PI: Koro de la Caba
4. Formulaciones de colágeno: caracterización térmica y reológica. Ekolber S.L., 24.015 €, 01/10/2022-31/12/2023, PI: Koro de la Caba
5. Caracterización de mezclas colágeno-principios activos para impresión-extrusión semisólida: medidas reológicas y de viscosidad y su dependencia con la temperatura, Ekolber S.L., 10.285 €, 17/01/2022-17/01/2023, PI: Koro de la Caba
6. Valoración de pupa de mosca para la obtención de quitina. TRAGSA, 4.470 €, 28/01/2022-28/04/2022, PI: Koro de la Caba
7. Prototipo y desarrollo de proteína texturizada, BITXO Challenge, S.L., 3.559 €, 01/02/2021 - 05/06/2021, PI: Koro de la Caba
8. Impresión 3D en el sector alimentario, Domotek, S.L., 8.023 €, 01/01/2021 - 30/06/2021, PI: Koro de la Caba
9. ALIFA3D - Alimentos contra la disfagia por impresión 3D, Domotek, S.L., 18.150 €, 01/01/2020 - 31/03/2021, PI: Koro de la Caba
10. SOSPACK – Desarrollo de packaging sostenible, Xumuxua, S.L., 18.150 €, 01/01/2020 - 30/06/2021, PI: Koro de la Caba