

Date of the CVA

07/07/2020

Section A. PERSONAL DATA

Name and Surname	Iñigo González de Arrieta Martínez		
DNI	22758442B	Age	26
Researcher's identification number	Researcher ID		
	Scopus Author ID	57189063991	
	ORCID	0000-0001-6984-5149	

A.1. Current professional situation

Institution	Gobierno Vasco		
Dpt. / Centre	Física Aplicada II / Universidad del País Vasco		
Address	Avenida Zumalacárregui 111 9 C, 48007, Bilbao		
Phone	(0034) 667247260	Email	inigo.gonzalezdearrieta@ehu.eus
Professional category	Personal investigador no doctor en formación	Start date	2019
UNESCO spec. code	220914 - Optical properties of solids; 220920 - Radiometry		
Keywords	Infrared; Instrumentations and detectors for experiments in physics, astrophysics, etc		

A.2. Academic education (Degrees, institutions, dates)

Bachelor/Master/PhD	University	Year
PhD in Physics	Universidad del País Vasco	2020
MS New Materials	Universidad del País Vasco	2016
BS Physics	Universidad del País Vasco	2015

A.3. General quality indicators of scientific production

- Scientific production: 14 peer-reviewed publications (9 JCR, 1 book chapter), 2 popular science articles.

- 21 contributions to national & international conferences (1 invited communication, 11 oral communications, 9 posters).

- Prize for dissemination of scientific knowledge (CAF-Elhuyar 2019).

- Number of citations and h-index: 11 (Scopus, h = 2) , 8 (WOS, h = 2).

Section B. SUMMARY OF THE CURRICULUM

PhD in Physics (University of the Basque Country UPV/EHU, 2020). My main research topics include emissivity measurements, infrared spectroscopy, materials for energy, and physics education. I am looking for a post-doc position to deepen my knowledge on wider applications of infrared spectroscopy for the characterization of new materials. My main scientific achievements include a complete upgrade of the HAIRL emissometer at the University of the Basque Country UPV/EHU, including a full revision of its uncertainty budget following the principles stated in the Guide for the Expression of Uncertainty in Measurement (GUM). Moreover, I have also researched promising new materials for alternative energy applications in collaborations with researchers from India, China, and the USA. I also have experience with modelling optical properties of materials using spectroscopic software (FOCUS, RefFIT). Overall, these achievements have translated into 9 JCR publications (including first-author publications in prestigious journals, such as Metrologia and Corrosion Science). Finally, I have also participated in 6 R&D projects and 1 technology transfer project, as well as an educational research project.

Section C. MOST RELEVANT MERITS (ordered by typology)

C.1. Publications

- 1 **Scientific paper.** I. González de Arrieta; et al. 2020. Isothermal oxidation kinetics of nitrided Ti-6Al-4V studied by infrared emissivity Corrosion Science. Elsevier. 173, pp.108723.
- 2 **Scientific paper.** I. González de Arrieta; et al. 2020. Updated measurement method and uncertainty budget for direct emissivity measurements at UPV/EHU Metrologia. IOP.
- 3 **Scientific paper.** R. Fuente; et al. 2020. High accuracy infrared emissivity between 50 and 1000 °C for solar materials characterization MATEC Web of Conferences. 307, pp.01043.
- 4 **Scientific paper.** R. Fuente; et al. 2020. c-Si PV cells emissivity characterization at low operating temperatures for efficiency management MATEC Web of Conferences. 307, pp.01044.
- 5 **Scientific paper.** I. González de Arrieta; et al. 2019. Infrared emissivity of copper-alloyed spinel black coatings for concentrated solar power systems Solar Energy Materials and Solar Cells. Elsevier. 200-15, pp.109961.
- 6 **Scientific paper.** G.A. López; et al. 2019. Combining strategies to make General Physics lectures more attractive and to improve students' performances Journal of Physics: Conference Series. 1287, pp.012027.
- 7 **Scientific paper.** I. González de Arrieta; et al. 2019. Evolution of the infrared emissivity of Ni during thermal oxidation until oxide layer opacity Infrared Physics & Technology. Elsevier. 97, pp.270-276.
- 8 **Scientific paper.** T. Echániz; et al. 2018. Thermal radiative properties of electron-beam-melted and mechanically alloyed V-4Cr-4Ti based alloys between 200 and 750 °C Journal of Nuclear Materials. 513, pp.86-93.
- 9 **Scientific paper.** T. Echániz; et al. 2018. Sensitivity of thermal emission spectroscopy for the study of structural phase transitions Infrared Physics and Technology. Elsevier. 93, pp.16-19.
- 10 **Scientific paper.** T. Echániz; et al. 2018. Eguzki-energia termikoa metatzeko materialetako emisibitate-esperimentuak Ekaia. EHUKO Zientzia eta Teknologia aldizkaria. Universidad del País Vasco/Euskal Herriko Unibertsitatea (UPV/EHU). 34, pp.199-210.
- 11 **Scientific paper.** A. Dan; et al. 2018. Effects of environmental and operational variability on the spectrally selective properties of W/WAIN/WAION/Al₂O₃ -based solar absorber coating Solar Energy Materials and Solar Cells. Elsevier. 185, pp.342-350.
- 12 **Scientific paper.** I. González de Arrieta; et al. 2017. Mid-infrared optical properties of pyrolytic boron nitride in the 390 - 1050 °C temperature range using spectral emissivity measurements Journal of Quantitative Spectroscopy and Radiative Transfer. Elsevier. 194, pp.1-6.
- 13 **Scientific paper.** I. González de Arrieta; et al. 2016. Thermo-radiative and optical properties of a cutting tool based on polycrystalline cubic boron nitride (PCBN) Materials Research Express. IOP Publishing. 3, pp.045904.
- 14 **Popular science article.** I. González de Arrieta; I. González Cubiella. 2019. Dysonen esferen bila Elhuyar Aldizkaria. 334, pp.62-64.
- 15 **Popular science article.** I. Urcelay-Olabarria; et al. 2018. Dirdai berezia daukazu gaur Elhuyar Aldizkaria.
- 16 **Book chapter.** I. González de Arrieta; et al. 2017. Material zeramikoen tenperatura altuko propietate infragorriak: boro nitruro kubiko eta hexagonalak II. Ikergazte. Nazioarteko ikerketa euskaraz. Kongresuko artikulua bilduma. Zientzia Zehatzak eta Natur Zientziak. UEU. pp.82-87. ISBN 978-84-8438-631-5.

C.2. Participation in R&D and Innovation projects

- 1 Grupo de Investigación en Propiedades Termofísicas de Materiales GIU19/019 Universidad del País Vasco. Gabriel Alejandro López. (Universidad del País Vasco). 01/01/2020-31/12/2022. 26.270,88 €.
- 2 Grupo de Investigación en Propiedades Radiativas de Materiales IT1364-19 Gobierno Vasco. Raquel Fuente Dacal. (Universidad del País Vasco). 01/01/2019-31/12/2021. 0 €.

- 3 Modelización para el desarrollo de algoritmos de corrección en termografía US19/13 Universidad del País Vasco. Raquel Fuente Dacal. (Universidad del País Vasco). 29/11/2019-28/11/2021. 63.450 €.
- 4 Emisividad infrarroja en materiales - Radiómetro para sólidos y líquidos PES16/35 Universidad del País Vasco. Gabriel Alejandro López. (Universidad del País Vasco). 15/11/2016-14/11/2020. 89.555,21 €.
- 5 Cámara infrarroja para alta temperatura INF19/18 Universidad del País Vasco. Raquel Fuente Dacal. (Universidad del País Vasco). 01/01/2019-31/12/2019. 10.792,24 €.
- 6 Grupo de Investigación en Propiedades Radiativas de Materiales PPGA19/25 Universidad del País Vasco. Raquel Fuente Dacal. (Universidad del País Vasco). 01/01/2019-31/12/2019. 5.566,29 €.

C.3. Participation in R&D and Innovation contracts

ESTUDIO DE TÉCNICAS TERMO-ÓPTICAS PARA LA MEDIDA DE TEMPERATURA DE PIEL DE TUBO EN HORNOS DE PETRONOR Petróleos del Norte, S.A.; Petronor Innovación S.L.. Raquel Fuente Dacal. 01/01/2019-01/01/2021. 89.241,18 €.

C.4. Patents