

Date of the CVA

21/01/2021

Section A. PERSONAL DATA

Name and Surname	Héctor Torres Pierna		
DNI/NIE/Passport		Age	31
Researcher's identification number	Researcher ID	AAC-4562-2021	
	Scopus Author ID	57194571770	
	ORCID	0000-0002-4345-0349	

* Obligatorio

A.1. Current professional situation

Institution	Futurechromes S.L.		
Dpt. / Centre			
Address			
Phone		Email	hectortorrespierna@gmail.com
Professional category	Technical Business Developer	Start date	2020
Keywords	Spectrophotometry; Nanostructures; Macromolecules and polymers		

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

Bachelor/Master/PhD	University	Year
Programa Oficial de Doctorado en Ciencia de Materiales	Universitat Autònoma de Barcelona	2020
Máster en Química Industrial e Introducción a la Investigación Química	Universitat Autònoma de Barcelona	2014
Licenciado en Ciencias Químicas	Universitat Autònoma de Barcelona	2013

A.3. General quality indicators of scientific production

Number of publications: 2

Number of citations: 6

h index: 1 (SCOPUS)

Published patents: 1

Section B. SUMMARY OF THE CURRICULUM

I believe in materials science as a key discipline to solve the current problems of our society in terms of sustainability and energy management, and I oriented my scientific career towards these fields.

I obtained a Bachelor's degree in Chemistry at the Autonomous University of Barcelona, with elective courses in industrial chemistry and catalysis. My final degree project was carried out as an Erasmus at the Centre for Catalysis and Sustainable Chemistry (DTU, Denmark). There I worked on the synthesis and characterization of Mn and Fe coordination complexes with tripodal ligands, and tested these complexes as catalysts in the production of biopolymers.

After this, I started as a volunteer researcher and then as a Master's student in the Nanostructured Functional Materials research group (ICN2) under the supervision of Prof. Daniel Ruiz Molina (ICN2) and Prof. Jordi Hernando Campos (UAB). I obtained a Master's Degree in Industrial Chemistry and Chemical Research (UAB), specializing in chemical research and nanomaterials. My final master's project consisted of developing different techniques for the synthesis and characterization of photosensitive nanocapsules with possible applications in energy saving.

Since then, I have been working for the company Futurechromes S.L. in a similar project under the direct supervision of Dr. Claudio Roscini (ICN2), one year as a research technician and 4 years as a pre-doctoral researcher, with an Industrial Doctorate grant from the Generalitat de Catalunya. The goal of my thesis and the company I work with is to apply these photosensitive nanomaterials to optical items and building materials such as smart windows to save energy and capture sunlight.

My current position within the company is as business developer. My job is to look for new business opportunities for the photosensitive products that I developed throughout my PhD. I get in touch with potential customers and brands, offering our technology and also developing custom products and prototypes with the specific requirements for each possible application of the technology. I offer technology transfer service and help to industrialize production.

Section C. MOST RELEVANT MERITS (ordered by typology)

C.1. Publications

AC: Autor de correspondencia; (nº x / nº y): posición firma solicitante / total autores

- 1 **Scientific paper.** Héctor Torres-Pierna; Daniel Ruiz-Molina; Claudio Roscini. (1/3). 2020. Highly transparent photochromic films with a tunable and fast solution-like response Materials Horizons. Royal Society of Chemistry. 7, pp.2749-2759.
- 2 **Scientific paper.** Héctor Torres-Pierna; Claudio Roscini; Alexandru Vlasceanu; Søren L. Broman; Martyn Jevric; Martina Cacciarini; Mogens Brøndsted Nielsen. (1/7). 2017. Photochromism of dihydroazulene-based polymeric thin films Dyes and Pigments. Elsevier. 145, pp.359-364.

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

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

Fast Responsive Photochromic Materials Futurechromes S.L.. Daniel Ruiz Molina. 01/10/2014-31/01/2021.

C.4. Patents

Claudio Roscini; Héctor Torres Pierna; Daniel Ruiz Molina. US10227527B2. Nanoemulsion optical materials United States of America. 12/03/2019. Consejo Superior de Investigaciones Científicas. Futurechromes S.L.; Indizen Optical Technologies of America, LLC,.