

Part A. PERSONAL INFORMATION

CV date	01/10/2026
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First name	Pere	
Family name	Barriobero Vila	
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ORCID / SCOPUS ID	0000-0002-4412-3729	5643368270

A.1. Current position

Position	ICREA Research Professor	
Period	01/10/2026 – Today	
Institution	Catalan Institution for Research and Advanced Studies (ICREA) / Spain	
	Technical University of Catalonia (UPC) / Spain Department of Materials Science and Engineering	
Keywords	Materials Science, Physical Metallurgy, Microstructure Engineering, Metal Additive Manufacturing, Sustainable Alloy Design, Synchrotron-based analysis, In-Situ and Operando Materials Characterization	

A.2. Previous positions

Period	Position / Institution / Country
01/09/2022-30/09/2026	Ramón y Cajal scientist / Department of Materials Science and Engineering, Technical University of Catalonia (UPC) / Spain
01/02/2017-31/08/2022	Scientist / Institute of Materials Research, German Aerospace Center (DLR) / Germany
01/08/2015–31/01/2017	Postdoctoral Researcher / Institute of Materials Science and Technology, Vienna University of Technology (TU Wien) / Austria
01/03/2011-31/07/2015	Doctoral Researcher / Institute of Materials Science and Technology, Vienna University of Technology (TU Wien) / Austria

A.3. Education

Doctorate, Degree	University / Country	Year obtained
Ph.D. Materials Science and Engineering (<i>distinction</i>)	Vienna University of Technology (TU Wien) / Austria	2015
M.S. – Materials Science and Engineering	Technical University of Catalonia (UPC) / Spain	2011
B.S. – Mechanical Engineering	Autonomous University of Barcelona (UAB) / Spain	2007

Part B. SUMMARY

I am ICREA Research Professor (eq. Full Prof.) currently appointed at the Department of Materials Science and Engineering of the Technical University of Catalonia-BarcelonaTech (UPC) in Barcelona, Spain. My research area focuses on investigating and tailoring the internal structure of metallic alloys through conventional and advanced processing to optimize their sustainability and performance properties. In particular, the main research lines that I am addressing in this area are: structure-property relationships of engineering alloys, metal additive manufacturing (also known as 3D printing), and advanced in-situ and operando characterization at large-scale synchrotron facilities.

Previously, I was appointed Ramón y Cajal (RyC) scientist at the UPC (2022-2026). The RyC talent attraction programme (success rate of ~10%) allowed me to settle in Spain after 12 years of continuous international research experience abroad in Austria and Germany (2010-2022). In my earlier position, I was appointed scientist at the Institute of Materials Research of the German Aerospace Center (DLR) -the Europe's largest aerospace research facility (Cologne, Germany) (2017-2022). Here, I led a novel research line of alloys for 3D printing which allows for the fabrication of metallic components with unprecedented functionalities. My major contribution to this area was awarded the prestigious DLR Science Award (2019) aiming at consolidating the career of young scientists. My postdoctoral activities were carried out in Austria at the Vienna University of Technology (TU Wien). There, I obtained a doctoral degree in materials science and engineering (2015) and received the Peter Emil Varga Best Dissertation Prize for this work. The research was focused on the design

of structural metallic alloys based on microstructure control monitored by time-resolved synchrotron techniques. Before moving to Austria, I earned a M.Sc. in materials science and a B.Sc. in mechanical engineering in Spain.

My work as main author has been published in multidisciplinary peer-reviewed journals of high-impact such as *Advanced Materials* (IF 30), *Nature Communications* (IF 18), and leading journals in materials science such as *Acta Materialia* (IF 10.2), *Scripta Materialia* (IF 5.6) or *Materials Science and Engineering A* (IF 6.0). My record (>85% in Q1) prioritizes quality over quantity and includes 60 articles in high-quality journals in Scopus (plus 5 undergoing peer-review) and 1 book chapter. My work has been selected as scientific highlights for the international community by the large-scale synchrotron facilities ESRF and DESY.

The competitive research projects I worked include 26 projects from Horizon, the DLR and national agencies in Germany, Austria and Spain and 8 industry-academia projects. I have a successful record of >30 accepted peer-reviewed proposals at international large-scale synchrotron facilities (eq. >1.9MEur). I have been involved in the organization of scientific events. I am reviewer of well-renowned materials science journals; have teaching experience at the university and in mentoring candidates in undergraduate/graduate, doctoral and postdoctoral programmes.

Research interests

My research area focuses on investigating and tailoring the internal structure of metallic alloys through conventional and advanced processing to optimize their sustainability and performance properties. In this regard, the main research lines are:

- **Structure-property relationships of engineering alloys:**

Goal: To provide knowledge for understanding how the structure of engineering alloys affects their properties for improving their performance and processing strategies.

On the one hand, the research approach aims at discovering basic insights expanding the fundamental knowledge and understanding of microstructure evolution. On the other hand, the development of applied results for practical industrial applications aims at opening new advanced manufacturing strategies improving the performance and sustainability of metallic products for high-value engineering applications.

This research line includes the application of conventional and advanced metal processing techniques for microstructure control, as well as characterization tools for revealing the microstructure in 2D and 3D, its mechanical and functional properties, as well as its phase transformation kinetics and deformation mechanisms.

- **Metal additive manufacturing (AM) (also known as metal 3D printing):**

Goal: To investigate of the influence of the thermal history induced by laser-based metal AM on microstructure formation for developing alloys that render competitive properties with respect to traditional manufacturing techniques that are driven by more stable thermal conditions.

Metal AM is today one of the fastest growing manufacturing sectors due to its advantages compared to the conventional manufacturing of metals such as casting, thermo-mechanical processing and machining: it allows the fabrication of near net-shape complex geometries that open unprecedented functionalities, no material waste, and re-manufacturing of end-of-life parts to promote the circular economy. However, a critical stage for its advancement is the development of alloys specifically tailored to the AM metallurgical conditions.

- **Advanced in-situ and operando material characterization using large-scale facilities:**

Goal: Time-resolved investigation of the microstructure evolution of engineering alloys to provide material properties in real time under manufacturing and service conditions that are not possible to obtain with conventional post-mortem approaches.

In-situ and operando characterization play an important role in revealing the structure-property relationships by enabling the direct observation of dynamic changes guiding the development of materials. Large-scale facilities such as synchrotron sources are employed for such characterization with core area in situ high-energy synchrotron X-ray diffraction.

Part C. LIST OF CONTRIBUTIONS

C.1. Major publications

The research record prioritizes quality over quantity with >85% in Q1 including publications as main author in multidisciplinary peer-reviewed journals of high-impact such as *Advanced Materials* (IF=30), *Nature Communications* (IF=18); and in leading materials science journals such as *Acta Materialia* (IF=10.7), *Scripta Materialia* (IF=6.3) or *Materials Science and Engineering A* (IF=7.9).

Table C1. Selected publications (chronological order).

1. **P. Barriobero-Vila**, G. Requena, F. Warchomicka, N. Schell, T. Buslaps, *Phase transformation kinetics during continuous heating of a β -quenched Ti-10V-2Fe-3Al alloy*, Journal of Materials Science, 2015, 50(3), 1412–1426 (2015) **Q1 / IF=4.5**
<https://doi.org/10.1007/s10853-014-8701-6>
2. **P. Barriobero-Vila**, G. Requena, T. Buslaps, M. Alfeld, U. Boesenberg, *Role of element partitioning on the α - β Phase transformation kinetics of a bi-modal Ti-6Al-6V-2Sn alloy during continuous heating*, Journal of Alloys and Compounds, 626, 330–339 (2015) **Q1 / IF=6.7**
<https://doi.org/10.1016/j.jallcom.2014.11.176>
3. **P. Barriobero-Vila**, G. Requena, S. Schwarz, F. Warchomicka, T. Buslaps, *Influence of phase transformation kinetics on the formation of α in a β -quenched Ti-5Al-5Mo-5V-3Cr-1Zr alloy*, Acta Materialia, 95, 90–101 (2015) **Q1 / IF=10.7**
<https://doi.org/10.1016/j.actamat.2015.05.008>
4. M. Alfeld, M. Wahabzada, C. Bauckhage, K. Kersting, G. Wellenreuther, **P. Barriobero-Vila**, G. Requena, U. Boesenberg, G. Falkenberg, *Non-negative matrix factorization for the near real-time interpretation of absorption effects in elemental distribution images acquired by X-ray fluorescence imaging*, Journal of Synchrotron Radiation, 23(2) 579–589 (2016) **Q1 / IF=2.5**
<https://doi.org/10.1107/S1600577515023528>
5. **P. Barriobero-Vila**, J. Gussone, J. Haubrich, S. Sandlöbes, J. C. da Silva, P. Cloetens, N. Schell, G. Requena, *Inducing stable $\alpha + \beta$ microstructures during selective laser melting of Ti-6Al-4V using intensified intrinsic heat treatments*, Materials, 10(3), 268 (2017) **Q1 / IF=3.7**
<https://doi.org/10.3390/ma10030268>
6. P. Kürsteiner, M. Wilms, A. Weisheit, **P. Barriobero-Vila**, E. A. Jägle, D. Raabe, *Massive nanoprecipitation in an Fe-19Ni-xAl maraging steel triggered by the intrinsic heat treatment during laser metal deposition*, Acta Materialia, 129, 52–60 (2017) **Q1 / IF=10.7**
<https://doi.org/10.1016/j.actamat.2017.02.069>
7. P. Kürsteiner, M. Wilms, A. Weisheit, **P. Barriobero-Vila**, B. Gault, E. A. Jägle, D. Raabe, *In-process precipitation during laser additive manufacturing investigated by atom probe tomography*, Microscopy and Microanalysis, 2017, 23, 694–695 (2017) **Q2 / IF=2.9**
<https://doi.org/10.1017/S1431927617004135>
8. **P. Barriobero-Vila**, B. Biancardi, S. Schwarz, T. Buslaps, G. Requena, *Tracking the α'' martensite decomposition during continuous heating of a Ti-6Al-6V-2Sn alloy*, Acta Materialia, 135, 132–143 (2017) **Q1 / IF=10.7**
<https://doi.org/10.1016/j.actamat.2017.06.018>
9. **P. Barriobero-Vila**, J. Gussone, K. Kelm, J. Haubrich, A. Stark, N. Schell, G. Requena, *An in situ investigation of the deformation mechanisms in a β -quenched Ti-5Al-5V-5Mo-3Cr alloy*, Materials Science and Engineering: A, 717, 134–143 (2018) **Q1 / IF=6**
<https://doi.org/10.1016/j.msea.2018.01.077>
10. I. Hinterlechner, **P. Barriobero-Vila**, B. Reitering, T. Fromherz, G. Requena, P. Burgholzer, *In-situ monitoring of phase transformation in Ti-6Al-6V-2Sn using laser ultrasonics*, Nondestructive Testing and Evaluation, 33(2), pp. 130–138 (2018) **Q1 / IF=4.1**
<https://doi.org/10.1080/10589759.2017.1356925>
11. K. Bugelnig, **P. Barriobero-Vila**, G. Requena, *Synchrotron computer tomography as a characterization method for engineering materials*, Practical Metallography, 55(8), 556–568 (2018) **Q2 / IF=1**
<https://doi.org/10.3139/147.110534>

12. **P. Barriobero-Vila**, J. Gussone, A. Stark, N. Schell, J. Haubrich, G. Requena, *Peritectic titanium alloys for 3D printing*, Nature Communications, 2018, 9(1), 3426 (2018) **Q1 / IF=18**
<https://doi.org/10.1038/s41467-018-05819-9>
13. J. Haubrich, J. Gussone, **P. Barriobero-Vila**, P. Kürnsteiner, E. A. Jägle, D. Raabe, N. Schell, G. Requena, *The role of lattice defects, element partitioning and intrinsic heat effects on the microstructure in selective laser melted Ti-6Al-4V*, Acta Materialia, 167, 136–148 (2019) **Q1 / IF=10.7**
<https://doi.org/10.1016/j.actamat.2019.01.039>
14. G. Requena, **P. Barriobero-Vila**, K. Bugelnig, J. Haubrich, J. Gussone, U. Hecht, F. Sket, J. C. da Silva, J. Villanova, *High resolution 3D and 4D characterization of microstructure formation in novel Ti alloys for additive manufacturing*, Microscopy and Microanalysis, 25(S2), 384–385 (2019) **Q2 / IF=2.9**
<https://doi.org/10.1017/S1431927619002654>
15. P. Kürnsteiner, A. Hariharan, H. Y. Jung, N. Peter, M. Wilms, A. Weisheit, **P. Barriobero-Vila**, B. Gault, D. Raabe, E. A. Jägle, *Application of atom probe tomography to complex microstructures of laser additively manufactured samples*, Microscopy and Microanalysis, 25, pp. 2514–2515 (2019) **Q2 / IF=2.9**
<https://doi.org/10.1017/S1431927619013308>
16. K. Barthá, J. Stráský, A. Veverková, **P. Barriobero-Vila**, F. Lukác, P. Sedlák, V. Polyakova, I. Semenova, M. Janecek, *Effect of the high-pressure torsion (HPT) and subsequent isothermal annealing on the phase transformation in biomedical Ti15Mo alloy*, Metals, 9(11), 1194 (2019) **Q1 / IF=3**
<https://doi.org/10.3390/met9111194>
17. D. Tolnai, S. Gavras, **P. Barriobero-Vila**, A. Stark, N. Schell, *Effect of Gd and Nd Additions on the Thermo-Mechanical Response of a MgMn Alloy*, Magnesium Technology 2020, Minerals, Metals and Materials Series, 2020, 37–42 (2020)
https://doi.org/10.1007/978-3-030-36647-6_8
18. M. Bönisch, A. Van Bael, M. Seefeldt, **P. Barriobero-Vila**, G. Requena, N. Sanchez, S. Cooreman, *Unravelling anisotropy evolution during spiral pipe forming: A multiscale approach*, Procedia Manufacturing, 47, 1434–1441 (2020) **Q2 / IF=2**
<https://doi.org/10.1016/j.promfg.2020.04.310>
19. G. Requena, K. Bugelnig, F. Sket, S. Milenkovic, G. Rödler, A. Weisheit, J. Gussone, J. Haubrich, **P. Barriobero-Vila**, T. Pusztai, L. Gránásy, A. Theofilatos, J. C. da Silva, U. Hecht, *Ultrafine Fe-Fe₂Ti eutectics by directed energy deposition: Insights into microstructure formation based on experimental techniques and phase field modelling*, Additive Manufacturing, 33, 101133 (2020) **Q1 / IF=11**
<https://doi.org/10.1016/j.addma.2020.101133>
20. M. Simonelli, D. G. McCartney, **P. Barriobero-Vila**, N. T. Aboulkhair, Y. Y. Tse, A. Claire, R. Hague, *The Influence of Iron in Minimizing the Microstructural Anisotropy of Ti-6Al-4V Produced by Laser Powder-Bed Fusion*, Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 51(5), pp. 2444–2459 (2020) **Q1 / IF=3**
<https://doi.org/10.1007/s11661-020-05692-6>
21. **P. Barriobero-Vila**, K. Artzt, A. Stark, N. Schell, M. Siggel, J. Gussone, J. Kleinert, W. Kitsche, G. Requena, J. Haubrich, *Mapping the geometry of Ti-6Al-4V: From martensite decomposition to localized spheroidization during selective laser melting*, Scripta Materialia, 182, pp. 48–52 (2020) **Q1 / IF=6.3**
<https://doi.org/10.1016/j.scriptamat.2020.02.043>
22. K. Artzt, T. Mishurova, P. Bauer, J. Gussone, **P. Barriobero-Vila**, E. Sergei, G. Bruno, G. Requena, J. Haubrich, *Pandora's box-influence of contour parameters on roughness and subsurface residual stresses in laser powder bed fusion of Ti-6Al-4V*, Materials, 13(15), 3348 (2020) **Q1 / IF=3.4**
<https://doi.org/10.3390/ma13153348>

23. J. Gussone, K. Bugelnig, **P. Barriobero-Vila**, J. Da Silva, U. Hecht, C. Dresbach, F. Sket, P. Cloetens, A. Stark, N. Schell, J. Haubrich, G. Requena, *Ultrafine eutectic Ti-Fe-based alloys processed by additive manufacturing – A new candidate for high temperature applications*, Applied Materials Today, 20, 100767 (2020) **Q1 / IF=7.2**
<https://doi.org/10.1016/j.apmt.2020.100767>
24. M. Poliserpi, **P. Barriobero-Vila**, G. Requena, L. García, A. Tolley, C. Poletti, T. Vojtek, A. Weiser, N. Schell, A. Stark, R. Boeri, S. Sommadossi, *TEM and Synchrotron X-ray Study of the Evolution of Phases Formed During Bonding of IN718/Al/IN718 Couples by TLPB*, Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 52(4), pp. 1382–1394 (2021) **Q1 / IF=3**
<https://doi.org/10.1007/s11661-021-06159-y>
25. K. Bartha, J. Stráský, **P. Barriobero-Vila**, V. Polyakova, M. Janeček, *In-situ investigation of phase transformations in ultra-fine grained Ti15Mo alloy*, Journal of Alloys and Compounds, 867, 159027 (2021) **Q1 / IF=6.7**
<https://doi.org/10.1016/j.jallcom.2021.159027>
26. G. Kasperovich, R. Becker, K. Artzt, **P. Barriobero-Vila**, G. Requena, J. Haubrich, *The effect of build direction and geometric optimization in laser powder bed fusion of Inconel 718 structures with internal channels*, Materials and Design, 207, 109858 (2021) **Q1 / IF=7.6**
<https://doi.org/10.1016/j.matdes.2021.109858>
27. J.M. Vallejos, **P. Barriobero-Vila**, J. Gussone, J. Haubrich, K. Kelm, A. Stark, N. Schell, G. Requena, *In Situ High-Energy Synchrotron X-Ray Diffraction Reveals the Role of Texture on the Activation of Slip and Twinning during Deformation of Laser Powder Bed Fusion Ti–6Al–4V*, Advanced Engineering Materials, 23(11), 2001556 (2021) **Q1 / IF=3.6**
<https://doi.org/10.1002/adem.202001556>
28. **P. Barriobero-Vila**, J.M. Vallejos, J. Gussone, J. Haubrich, K. Kelm, A. Stark, N. Schell, G. Requena, *Interface-Mediated Twinning-Induced Plasticity in a Fine Hexagonal Microstructure Generated by Additive Manufacturing*, Advanced Materials, 33(52), 2105096 (2021) **Q1 / IF=30**
<https://doi.org/10.1002/adma.202105096>
29. **P. Barriobero-Vila**, R. Jerez-Mesa, A. Guitar, O. Gavalda-Díaz, J.A. Travieso-Rodríguez, A. Stark, N. Schell, J. Llumà, G. Fargas, A. Mateo, J.J. Roa, *Deformation kinetics of a TRIP steel determined by in situ high-energy synchrotron X-ray diffraction*, Materialia 20, 101251 (2021) **Q1 / IF=3**
<https://doi.org/10.1016/j.mtla.2021.101251>
30. I. Burda, K. Zweiacker, A. Arabi-Hashemi, **P. Barriobero-Vila**, A. Stutz, R. Koller, H. Roelofs, L. Oberli, L. Lembke, C. Affolter, C. Leinenbach, *Fatigue crack propagation behavior of a micro-bainitic TRIP steel*, Materials Science and Engineering: A, 840, 142898 (2022) **Q1 / IF=6**
<https://doi.org/10.1016/j.msea.2022.142898>
31. Y. Ma, I.R. Souza Filho, X. Zhang, S. Nandy, **P. Barriobero-Vila**, G. Requena, D. Vogel, M. Rohwerder, D. Ponge, H. Springer, D. Raabe, *Hydrogen-based direct reduction of iron oxide at 700°C: Heterogeneity at pellet and microstructure scales*, International Journal of Minerals, Metallurgy and Materials, 29(10), 1901–1907 (2022) **Q1 / IF=5.6**
<https://doi.org/10.1007/s12613-022-2440-5>
32. M.S. Knieps, O.M. Messé, **P. Barriobero-Vila**, U. Hecht, *Advanced characterization of two novel Fe-rich high entropy alloys developed for laser powder bed fusion in the Al-Co-Cr-Fe-Ni-Zr system*, Materialia, 26, 101615 (2022) **Q1 / IF=3**
<https://doi.org/10.1016/j.mtla.2022.101615>
33. U. Hecht, A. Vayyala, **P. Barriobero-Vila**, N. Navaeilavasani, S. Gein, I. Cazic, J. Mayer, *Microstructure evolution in the hypo-eutectic alloy Al0.75CrFeNi2.1 manufactured by laser powder bed fusion and subsequent annealing*, Materials Science and Engineering A, 862, 144315 (2023) **Q1 / IF=7.9**
<https://doi.org/10.1016/j.msea.2022.144315>
34. Y. Lakroune, D. Connétable, J. Hugues, **P. Barriobero-Vila**, M. Dehmas, *Microstructural evolution during post heat treatment of the Ti–6Al–4V alloy manufactured by laser powder bed fusion*, Journal of Materials Research and Technology, 23, 1980–1994 (2023) **Q1 / IF=7.3**

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35. A. Veverková, P. Hrcuba, J. Veselý, **P. Barriobero-Vila**, P. Dolezal, J. Pospisil, K. Bartha, J. Smilauerová, J. Kozlík, J. Stráský, M. Janeček, *Sequenc.e of phase transformations in metastable β Zr–12Nb alloy studied in situ by HEXRD and complementary techniques*, Journal of Materials Research and Technology, 23, 5260–5269 (2023) **Q1 / IF=7.3**
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36. T. Strohmann, **P. Barriobero-Vila**, J. Gussone, D. Melching, A. Stark, N. Schell, G. Requena, *Can unsupervised machine learning boost the on-site analysis of in situ synchrotron diffraction data?*, Scripta Materialia, 226, 115238 (2023) **Q1 / IF=6.3**
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37. P. Kürnstener, **P. Barriobero-Vila**, P. Bajaj, F. De Geuser, M.B. Wilms, E.A. Jägle, D. Raabe, *Designing an Fe-Ni-Ti maraging steel tailor-made for laser additive manufacturing*, Additive Manufacturing, 73, 103647 (2023) **Q1 / IF=11**
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38. J. Gussone, M.W. Rackel, S. Tumminello, **P. Barriobero-Vila**, F. Kreps, K. Kelm, A. Stark, N. Schell, F. Pyczak, J. Haubrich, G. Requena, *Microstructure formation during laser powder bed fusion of Ti-22Al-25Nb with low and high pre-heating temperatures*, Materials and Design, 232, 112154 (2023) **Q1 / IF=8.2**
<https://doi.org/10.1016/j.matdes.2023.112154>
39. M. Simonelli, Z. Zou, **P. Barriobero-Vila**, Y.Y. Tse, *The development of ultrafine grain structure in an additively manufactured titanium alloy via high-temperature microscopy*, Materialia, 30, 101856 (2023) **Q1 / IF=3**
<https://doi.org/10.1016/j.mtla.2023.101856>
40. M. Vollmer, S. Degener, A. Bolender, A. Bauer, A. Liehr, A. Stark, N. Schell, **P. Barriobero-Vila**, G. Requena, T. Niendorf, *Time resolved insights into abnormal grain growth by in situ synchrotron measurements*, Acta Materialia, 226, 119168 (2023) **Q1 / IF=10.7**
<https://doi.org/10.1016/j.actamat.2023.119168>
41. T. Klein, A. Arnoldt, M. Gomes, **P. Barriobero-Vila**, *Microstructure and Mechanical Properties of an Advanced Ag-Microalloyed Aluminum Crossover Alloy Tailored for Wire-Arc Directed Energy Deposition*, JOM, 75(10), pp. 4128–4137 (2023) **Q1 / IF=2.5**
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42. M. Bönisch, **P. Barriobero-Vila**, P.P. Dhekne, A. Stark, N. Schell, T. Úngar, G. Requena, M. Seefeldt, *Tension-compression asymmetry of metastable austenitic stainless steel studied by in-situ high-energy X-ray diffraction*, International Journal of Plasticity, 170, 103767 (2023) **Q1 / IF=15.4**
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43. Y. Lakroune, A. Pugliuara, D. Connétable, J. Hugues, P. Hermantier, **P. Barriobero-Vila**, M. Dehmas, *Microstructural evolution during post heat treatment of the Ti-6Al-4V alloy manufactured by laser powder bed fusion*, Proceedings of the 15th World Titanium Conference (2023).
44. J. Geng, Y. Shi, **P. Barriobero-Vila**, M. Jiao, Y. Cao, Y. Tang, J. He, C. Ma, Y. Ma, Z. Lei, Z. Lu, *Ultrastrong and ductile NiTi-based composite with large recoverable strain mediated by a compositionally complex phase*, Applied Materials Today, 39, 102347 (2024) **Q1 / IF=7.2**
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45. J.M. Vallejos, L.M. Guerrero, M.F. Giordana, J.A. Malarria, G. Requena, E. Maawad, N. Schell, **P. Barriobero-Vila**, *Kinetics of the $\alpha \rightarrow \gamma'$ stress-induced martensitic transformation in a Fe–Mn–Al–Ni shape memory bicrystal*, Materials Letters, 370, 136861 (2024) **Q1 / IF=3**
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46. M. Jaydeepkumar Oza, A. Stark, E. Polatidis, **P. Barriobero-Vila**, M. Shahverdi, C. Leinenbach, *Characterization of low-temperature creep and stress relaxation of an iron-based shape memory alloy (Fe-SMA) using in-situ synchrotron diffraction*, Materials and Design, 247, 113378 (2024) **Q1 / IF=8.2**
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47. J.A. Muñoz, **P. Barriobero-Vila**, A. Stark, N. Schell, Y. Zhu, J.M. Cabrera, *Softening kinetics and mechanism during the annealing of an Al-Si alloy produced by laser powder bed fusion*, Journal of Alloys and Compounds, 1005, 176141 (2024) **Q1 / IF=6.7**
<https://doi.org/10.1016/j.jallcom.2024.176141>
48. M.S. Knieps, O.M. Messé, **P. Barriobero-Vila**, U. Hecht, *Novel Fe-rich hypo-eutectic high entropy alloy developed for laser powder bed fusion in the Al-Co-Cr-Fe-Ni-Zr system*, Journal of Alloys and Compounds, 1008, 176413 (2024) **Q1 / IF=6.7**
<https://doi.org/10.1016/j.jallcom.2024.176413>
49. M. Poliserpi, **P. Barriobero-Vila**, G. González, S. Zappa, M. Zalazar, H. Svoboda, *Effect of Multipass Welding in the Phase Balance of Dissimilar Duplex Stainless-Steel Joint Using Double-Pulsed Gas Metal Arc Welding*, Materials Science Forum 1155 (2025) **Q2 / IF=1**
<https://doi.org/10.4028/p-NH7jnc>
50. R.F. Vaz, J. A. Avila, **P. Barriobero-Vila**, J.A. Muñoz, V. Albaladejo, I. Garcia Cano, *Heat treatment effect on microstructural evolution of cold spray additive manufacturing Ti6Al4V*, Journal of Materials Science 60 (2025) **Q1 / IF=4.5**
<https://doi.org/10.1007/s10853-025-10760-6>
51. D. Mani, P. Cloetens, D. Karpov, F. Monaco, B. Chehab, R. Shahani, S. Van Petegem, **P. Barriobero-Vila**, K. Bugelnig, G. Requena, *Nanoscale 3D characterization of an Al-1Fe-1Zr alloy for additive manufacturing*, Materials Characterization 225, 115109 (2025) **Q1 / IF=5**
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52. P. Stich, M. Apel, M. Megahed, L. Bautmans, **P. Barriobero Vila**, M. Hans, T. Weirich, K. Büßenschütt, C. Haase, *A combined experimental and numerical assessment of the role of microsegregation and phase formation on hot cracking susceptibility in laser powder bed fused CM247LC*, Journal of Materials Research and Technology 37 (2025). **Q1 / IF=6.6**
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53. M. García-Domínguez, I. Mejía, N. Schell, A. Stark, J.M. Cabrera, **P. Barriobero-Vila**, *Evolution of precipitation in a duplex Fe-Mn-Al-C low-density steel revealed by in situ high-energy synchrotron X-ray diffraction*, Materials Characterization 47, 113101 (2025). **Q1 / IF=6.2**
<https://doi.org/10.1016/j.mtcomm.2025.113101>
54. I. Cazic, **P. Barriobero-Vila**, N. Navaeilavasan, A. Stark, N. Schell, J. Ghanbaja, P. Anvari, U. Hecht, *Temperature-dependent deformation behavior of the additively manufactured Al0.75CrFeNi2.1 alloy using in-situ high energy X-ray diffraction*, Journal of Alloys and Compounds 1037, 182596 (2025). **Q1 / IF=6.7**
<https://doi.org/10.1016/j.jallcom.2025.182596>
55. M. Oliboni, E. Battiston, **P. Barriobero-Vila**, E. Basagaña, J.M. Cabrera, I. Calliari, J.E. Rey-Castañeda, R. Elvira, T. Faraji, L. Pezzato, M. Pigato, U. Prahl, M. Zapf, A. Vilalta, A. Mazzi, *Life cycle analysis of innovative automotive lightweight applications of low-density steels*, Procedia CIRP 136, 44–48 (2025)
<https://doi.org/10.1016/j.procir.2025.08.010>
56. A. Veverková, K. Barthá, J. Veselý, **P. Barriobero-Vila**, J. Kozlík, P. Doležal, J. Pospíšil, J. Šmilauerová, J. Stráský, *Phase transformations in metastable β Zr15Nb alloy studied by in-situ methods*, Journal of Materials Science (2025) **Q1 / IF=4.5**
<https://doi.org/10.1007/s10853-025-11846-x>
57. M. García-Domínguez, I. Mejía, N. Schell, A. Stark, J.M. Cabrera, **P. Barriobero-Vila**, *Effect of V microalloying on the precipitation-aging kinetics of a duplex Fe-12Mn-8Al-1C low-density steel using in situ high-energy synchrotron X-ray diffraction*, Metallurgical and Materials Transactions A (2026) **Q1 / IF=3.0**
<https://doi.org/10.1007/s11661-026-08321-w>
58. J. Singh, J. Mourão, Z. Haowei, **P. Barriobero-Vila**, T. Santos, J. P. Oliveira, *Influence of vibration parameters on geometry and microstructure of an AZ61A magnesium alloy during WAAM*, Progress in Additive Manufacturing, 11, 5653–5666 (2026) **Q1 / IF=5.2**
<https://doi.org/10.1007/s40964-026-01657-0>

C.2. Congresses

Table C2. Selected talks in prestigious international conferences (chronological order).

1. **P. Barriobero-Vila**, F. Warchomicka, T. Buslaps, M. Stockinger, G. Requena, *Phase transformation kinetics in $\alpha+\beta$ and near- β titanium alloys*, 7th Seminar for Central European PhD Students - Research in Materials Science, Slovak University of Technology (STU), Trnava, Slovakia (2012) [Link](#)
2. **P. Barriobero-Vila**, F. Warchomicka, G. Requena, M. Stockinger, T. Buslaps, *Phase Transformation Kinetics in a metastable β titanium alloy*, HI TEMP 2012 conference, Munich, Germany (2012) [Link](#)
3. **P. Barriobero-Vila**, F. Warchomicka, G. Requena, M. Stockinger, N. Schell, A. Stark, T. Buslaps, G. Requena, *Time-resolved decomposition of a duplex-phase microstructure during continuous heating of a Ti-alloy*, ALBA User Meeting and VI AUSE Conference, Asociación Usuarios Sincrotrón España, Barcelona, Spain (2013) [Link](#)
4. **P. Barriobero-Vila**, F. Warchomicka, G. Requena, N. Schell, A. Stark, T. Buslaps, M. Stockinger, *Phase transformation kinetics of a metastable alloy*, LightMAT 2013 Conference, Bremen, Germany, German Materials Society (DGM) (2013) [Link](#)
5. **P. Barriobero-Vila**, F. Warchomicka, G. Requena, M. Stockinger, T. Buslaps, *Decomposition of the α''/β duplex phase microstructure during continuous heating*, DESY Photon Science Users' Meeting 2013, Symposium: The German Engineering Materials Science Centre (GEMS): Status and perspectives of the Helmholtz-Zentrum Geesthacht Outstation at DESY, Hamburg, Germany (2013). **Invited.** [Link](#)
6. **P. Barriobero-Vila**, G. Requena, T. Buslaps, M. Alfeld, U. Boesenberg, *Role of element partitioning on transformation kinetics*, Denver X-ray Conference, International Centre for Diffraction Data, Denver, USA (2015) [Link](#)
7. **P. Barriobero-Vila**, G. Requena, T. Buslaps, U. Boesenberg, *Phase transformation kinetics during continuous heating of titanium alloys*, Ti-2015 The 13th World Conference on titanium, The Minerals Metals and Materials Society San Diego, USA (2015) [Link](#)
8. R. Paiotti, **P. Barriobero-Vila**, V. Oliveira, G. Requena, H. Pinto, *Preliminary studies on the aging kinetics of Ti-55531 alloy using high-energy synchrotron X-ray diffraction*, Simpósio em Ciência e Engenharia de Materiais (SICEM), São Carlos, Brasil (2016) [Link](#)
9. **P. Barriobero-Vila**, J. Gussone, J. Haubrich, S. Sandlöbes, J. C. da Silva, P. Cloetens, N. Schell, G. Requena, *Microstructure optimization of titanium alloys produced by additive manufacturing*, Users meeting of the European Radiation Facility (ESRF), European Synchrotron Radiation Facility (ESRF), Grenoble, France (2017). **Invited.** [Link](#)
10. G. Requena, **P. Barriobero Vila**, J. Gussone, J. Haubrich, G. Kasperovich, P. Bauer, K. Artzt, S. Sandlöbes, J.C. da Silva, P. Cloetens, *Using metastability to engineer the microstructure of Ti-6V-4Al produced by selective laser melting*, Euromat 2017, Greece (2017) [Link](#)
11. **P. Barriobero-Vila**, J. Gussone, S. Sandlöbes, J. C. da Silva, G. Requena, P. Cloetens, N. Schell, *Intensified intrinsic heat treatments during selective laser melting*, LightMAT conference on light materials, German Materials Society (DGM), Bremen, Germany (2017) [Link](#)
12. J. Haubrich, **P. Barriobero Vila**, K. Artzt, J. Gussone, G. Kasperovich, P. Kürnsteiner, E. Jägle, G. Requena, *Exploiting Metastability and Lattice Defects for Microstructural Engineering of SLM Ti-6Al-4V*, Advanced additive Manufacturing Symposium AAMS18, 2018-09-03, Sheffield (2018) [Link](#)
13. **P. Barriobero-Vila**, J. Gussone, J. Haubrich, A. Stark, N. Schell, G. Requena, *Tailoring titanium alloys to additive manufacturing*, MSE congress and exhibition on advanced materials, Darmstadt, Germany, German Materials Society (DGM) (2018) **Invited.** [Link](#)
14. **P. Barriobero-Vila**, J. Gussone, A. Stark, N. Schell, G. Requena, J. Haubrich, *Re-interpreting alloys for additive manufacturing*, AAMS: Alloys for Additive Manufacturing Symposium, University of Sheffield, Sheffield, England (2018) [Link](#)
15. **P. Barriobero-Vila**, J. Gussone, A. Stark, N. Schell, J. Haubrich, G. Requena, *Selective laser melting of titanium alloys with isotropic microstructures*, Ti-2019 The 14th World Conference on titanium, The French Titanium Association and The French Society for Metallurgy and Materials, Nantes, France (2019) [Link](#)
16. K. Bartha, J. Strasky, A. Terynková, J. Vesely, P. Minárik, **P. Barriobero-Vila**, P. Dolezal, I. Semenova, V. Polykova, M. Janeczek, *The influence of the ultra-fine grained structure on phase transformations in Ti15Mo alloy*, Ti-2019 The 14th World Conference on titanium, The French

- Titanium Association and The French Society for Metallurgy and Materials, Nantes, France (2019) [Link](#)
17. **P. Barriobero-Vila**, K. Artzt, J. Gussone, A. Stark, N. Schell, W. Kitsche, J. Haubrich, G. Requena, *Development of alloys for laser additive manufacturing*, Users meeting of the German Electron Synchrotron (DESY), Helmholtz-Zentrum Geesthacht GEMS Outstation: Materials Research and High-Resolution Imaging, Hamburg, Germany, German Electron Synchrotron (DESY) (2019). Invited. [Link](#)
 18. J. Haubrich, **P. Barriobero-Vila**, J. Gussone, P. Kürsteiner, E. Jägle, D. Raabe, N. Schell, G. Requena, *Exploiting Metastability and Lattice Defects for Microstructural Engineering of Selective Laser Melted Ti-6Al-4V*, EUROMAT 2019, Stockholm, Sweden (2019) [Link](#)
 19. **P. Barriobero-Vila**, G. Requena, J. Gussone, J. Haubrich, U. Hecht, A. Theofilatos, *Development of Ti-based materials tailored to additive manufacturing*, TMS 2019 Annual Meeting & Exhibition, The Minerals Metals and Materials Society, San Antonio, USA (2019). Invited. [Link](#)
 20. M. Poliserpi, **P. Barriobero-Vila**, G. Requena, C. Poletti, R. Boeri, S. Sommadossi, *Phase evolution in Inconel718 / Al / Inconel718 couples obtained by TLPB*, Congreso Nacional de Metalurgia y Materiales (CONAMET-SAM-2019) (2019) [Link](#)
 21. J.C. da Silva, **P. Barriobero Vila**, K. Bugelnig, U. Hecht, J. Gussone, P. Cloetens, F. Sket, J. Haubrich, G. Requena, *Characterization of alloys for a new generation of metals for additive manufacturing by Near-Field Ptychographic Tomography*, UDM3: Exploiting coherent X-rays at ESRF, Grenoble, France (2019) Invited. [Link](#)
 22. **P. Barriobero-Vila**, J. Gussone, K. Bugelnig, E. Breitbarth, J. Haubrich, T. Strohmann, K. Silva, U. Hecht, F. Sket, G. Requena, J. C. da Silva, J. Villanova, *Time-resolved characterization of novel alloys for additive manufacturing*, Alloys for Additive Manufacturing Symposium (AAMS), Goteborg, Sweden (2019) [Link](#)
 23. E. Jägle, P. Kürsteiner, P. Bajaj, M.B. Wilms, F. de Geuser, **P. Barriobero-Vila**, D. Raabe, *Controlling phase transformations during Laser AM - the Intrinsic Heat Treatment effect and beyond*, Alloys for Additive Manufacturing Symposium (AAMS), Goteborg, Sweden (2019) [Link](#)
 24. G. Kasperovich, **P. Barriobero Vila**, G. Requena, J. Haubrich, *SLM Fertigung von Brennkammer-Kühlungsstrukturen aus Inconel 718*, Werkstoffwoche, Kongress & Fachmesse Dresden, Dresden, Germany (2019) [Link](#)
 25. K. Bugelnig, **P. Barriobero Vila**, J. Gussone, J. Haubrich, J.C. da Silva, U. Hecht, F. Sket, H. Gödeke, G. Requena, *Ultrafine eutectic Ti-based Alloys for Additive Manufacturing*, ESRF-EBS Coherence Workshop, Grenoble, France (2019) [Link](#)
 26. J. Haubrich, **P. Barriobero-Vila**, J. Gussone, G. Kasperovich, P. Kürsteiner, E. Jägle, D. Raabe, N. Schell, G. Requena, *Ausnutzung von Metastabilität und Gitterdefekten bei der Mikrostrukturanpassung von SLM Ti-6Al-4V*, Werkstoffwoche 2019, Dresden, Germany (2019) [Link](#)
 27. **P. Barriobero-Vila**, K. Bugelnig, K. Silva, G. Requena, E. Breitbarth, T. Strohmann, J. Gussone, J. Haubrich, N. Schell, A. Stark, J. Villanova, *Synchrotron X-rays to engineer novel alloys for additive manufacturing*, Material Science and Engineering Congress - MSE 2020, German Materials Society (DGM), Darmstadt, Germany (2020) [Link](#)
 28. **P. Barriobero-Vila**, J.M. Vallejos, J. Gussone, K. Silva, J. Villanova, G. Requena, A. Stark, N. Schell, J. Haubrich, *Phase transformations drive microstructure control in alloys for additive manufacturing*, Thermec'2020 processing on advanced materials, Vienna, Austria (2020) [Link](#)
 29. **P. Barriobero-Vila**, *Structural materials under real manufacturing and service conditions: from state-of-the-art to the challenges of tomorrow*, PETRA IV – Materials and processes for energy and transport technology, German Electron Synchrotron (DESY), Hamburg, Germany (2020) Invited [Link](#)
 30. T. Strohmann, K. Bugelnig, E. Breitbarth, F. Mockenhaupt, F. Wilde, T. Steffens, H. Germann, E. Boller, K. Silva-Reyes, **P. Barriobero-Vila**, G. Requena, *Fast segmentation of 3D and 4D synchrotron tomography using deep convolutional neural networks*, MSE 2020; ursprünglich Darmstadt, Germany (2020) [Link](#)
 31. E. Jägle, P. Kürsteiner, P. Bajaj, M.B. Wilms, F. de Geuser, **P. Barriobero-Vila**, D. Raabe, *The intrinsic heat treatment effect in (Laser) AM*, LMS Seminar: Spring 2020 series, Institut Polytechnique de Paris, Online (2019) [Link](#)

32. T. Mishurova, B. Rehmer, K. Artzt, **P. Barriobero-Vila**, I. Serrano-Munoz, J. Haubrich, G. Requena, G. Bruno, *Influence of Residual Stress and Microstructure on Mechanical Performance of LPBF Ti-6Al-4V*, ASTM International Conference on Additive Manufacturing (ASTM ICAM 2020), Virtual (2020) [Link](#)
33. J. Gussone, K. Bugelnig, **P. Barriobero Vila**, U. Hecht, F. Sket, A. Stark, N. Schell, J.C. Da Silva, P. Cloetens, H. Gödeke, J. Haubrich, G. Requena, *Ultrafein-eutektische Ti-basierte Legierungen für die additive Fertigung*, Fachtagung Werkstoffe und Additive Fertigung, Online (2020) [Link](#)
34. K. Artzt, **P. Barriobero-Vila**, J. Gussone, G. Kasperovich, G. Requena, J. Haubrich, *Laser Powder Bed Fusion of Ti-6Al-4V Manufacturing of a shrouded Impeller*, Adiva Querétaro, Online (2020) [Link](#)
35. K. Artzt, **P. Barriobero-Vila**, J. Gussone, P. Bauer, G. Kasperovich, M. Löbbbecke, G. Requena, J. Riccius, D. Suslov, S. Hümbert, J. Haubrich, *Additive Manufacturing of Components for Rocket Propulsion*, IRAS Additive Manufacturing Workshop, Virtual. (2021) [Link](#)
36. **P. Barriobero Vila**, K. Bugelnig, J.M. Vallejos, J. Gussone, K. Silva-Reyes, J. Villanova, A. Stark, N. Schell, J. Haubrich, G. Requena, *Real-time monitoring of additive manufacturing alloys*, EUROMAT 2021, Graz, Austria (2021) [Link](#)
37. K. Artzt, T. Mishurova, P. Bauer, J. Gussone, **P. Barriobero-Vila**, S. Evsevlev, G. Bruno, G. Kasperovich, G. Requena, J. Haubrich, *Characterization methods for additive manufacturing: Influence of processing strategies on residual stresses, microstructure and defects in AM materials and components*, Workshop on additive manufacturing, online (2021) [Link](#)
38. S. Tumminello, J. Gussone, M. Rackel, Andreas Stark, Norbert Schell, **P. Barriobero-Vila**, J. Haubrich, G. Requena, *Simulations of precipitation kinetics in Ti2AlNb-based multiphase alloys synthesized by laser powder bed fusion*, MSE: International Materials Science and Engineering Congress, German Materials Society (DGM), Darmstadt, Germany (2022) [Link](#)
39. S. Tumminello, J. Gussone, S. Fries, M. Rackel, A. Stark, N. Schell, **P. Barriobero Vila**, J. Haubrich, G. Requena, *Simulations of precipitation kinetics for an ICME framework: an example on Ti2AlNb-based alloys*, Hero-m 2i seminar, Stockholm, Sweden (2022) [Link](#)
40. T. Strohmann, **P. Barriobero-Vila**, J. Gussone, D. Melching, A. Stark, N. Schell, G. Requena, *Can unsupervised machine learning boost the analysis of my synchrotron diffraction data (on-site)?*, MSE Congress, Darmstadt, Germany (2022) [Link](#)
41. S. Tumminello, J. Gussone, M. Rackel, A. Stark, N. Schell, **P. Barriobero-Vila**, J. Haubrich, G. Requena, *Simulations of precipitation kinetics in Ti2AlNb-based multiphase alloys synthesized by laser powder bed fusion*, International Materials Science and Engineering Congress, Germany (2022) [Link](#)
42. K. Artzt, P. Bauer, J. Gussone, G. Kasperovich, **P. Barriobero-Vila**, G. Requena, J. Haubrich, W. Kitsche, J. Riccius, D. Suslov, J. Kleinert, P. Rosauer, M. Siggel, S. Hümbert, *Metal Additive Manufacturing of Space Components @ DLR. 1st international conference on advanced manufacturing for air, space and land transportation*, Germany (2022) [Link](#)
43. K. Bugelnig, **P. Barriobero-Vila**, E. Breitbarth, T. Strohmann, J. Gussone, K. Silva, J. Villanova, A. Stark, N. Schell, J. Haubrich, G. Requena, *4D microstructure evolution in Titanium Alloys for Additive Manufacturing*, International Conference for Tomography on Materials and Structures (ICTMS) 2022, Grenoble, France (2022) [Link](#)
44. K. Bugelnig, **P. Barriobero-Vila**, E. Breitbarth, T. Strohmann, K. Silva, J. Haubrich, J. Villanova, N. Schell, A. Stark, G. Requena, *4D microstructure evolution in titanium alloys tailored for additive manufacturing*, MSE-Materials Science and Engineering Congress, Darmstadt, Germany (2022) [Link](#)
45. K. Bugelnig, **P. Barriobero Vila**, E. Breitbarth, T. Strohmann, J. Gussone, J. Villanova, A. Stark, N. Schell, K. Silva, J. Haubrich, G. Requena, *4D microstructure evolution in a Titanium Alloy for Additive Manufacturing*. AK Röntgentomographie, Germany (2022) [Link](#)
46. D. Mani, P. Cloetens, F. Monaco, B. Chehab, Ravi Shahani, **P. Barriobero-Vila**, Jan Haubrich, G. Requena, *Nano-characterization of a next-generation aluminium alloy for 3D-printing affordable satellites*, MSE-Materials Science and Engineering Congress, Darmstadt, Germany (2022) [Link](#)
47. J. Gussone, M. Rackel, S. Tumminello, **P. Barriobero-Vila**, F. Kreps, K. Kelm, A. Stark, N. Schell, F. Pyczak, J. Haubrich, G. Requena, *Laser powder bed fusion of Ti-22Al-25Nb at low and high pre-heating temperatures*, FEMS EUROMAT 2023, Frankfurt, Germany (2023) [Link](#)

48. I. Cazic, P. Anvari, S. Hemes, **P. Barriobero-Vila**, U. Hecht, *Laser powder bed fusion of the hypoeutectic medium entropy alloy Al_{0.75}CrFeNi_{2.1}*, Thermec 2023: International Conference on processing and manufacturing of advanced materials, Vienna, Austria (2023) [Link](#)
49. T. Strohmman, K. Bugelnig, J. Gussone, **P. Barriobero Vila**, A. Stark, F. Wilde, D. Melching, N. Schell, J. Villanova, E. Boller, F. Bode, C. Wielenberg, E. Breitbarth, G. Requena, *Using AI for synchrotron data analysis*, DESY Photon Science Users' Meeting, Hamburg, Germany (2023) [Link](#)
50. J. Munk, J. Haubrich, K. Artzt, J. Gussone, **P. Barriobero Vila**, G. Kasperovich, M. Löbbecke, G. Requena, J. Riccius, D. Suslov, S. Hümbert, J. Deeken, J. Hardi, F. Lauck, L. Werling, L. Braune, *Additive Manufacturing for Space Applications*, Selected Topics of Space Propulsion - TU Darmstadt, Darmstadt, Germany (2023) [Link](#)
51. J. Gussone, M. Rackel, S. Tumminello, **P. Barriobero-Vila**, F. Kreps, K. Kelm, A. Stark, N. Schell, F. Pyczak, J. Haubrich, G. Requena, *Microstructure formation during laser powder bed fusion of Ti-22Al-25Nb*, Alloys for Additive Manufacturing Symposium (AAMS), Madrid, Spain (2023) [Link](#)
52. Y. Lakroune, D. Connétable, J. Hugues, P. Hermantier, **P. Barriobero-Vila**, M. Dehmas, *Microstructural evolution during heat treatment of the Ti-6Al-4V alloy manufactured by laser powder bed fusion*, Wold Titanium Conference 2023, Edinburgh, Scotland (2023) [Link](#)
53. A. Veverková, P. Harcuba, J. Vesely, **P. Barriobero-Vila**, P. Dolezal, J. Smilauerová, J. Strasky, M. Janecek, *In-situ studies of phase evolution in metastable beta ZrNb alloys*, Euromat, Frankfurt, Germany (2023) [Link](#)
54. U. Hecht, **P. Barriobero-Vila**, I. Cazic, S. Gein, N. Navaeilavasani, *Additive manufacturing of the hypo-eutectic medium entropy alloy Al_{0.75}CrFeNi_{2.1} by LPBF: alloy selection, microstructure evolution and properties*, Euromat, Frankfurt, Germany (2023) [Link](#)
55. A. Mejia,-Reinoso, S. Cabeza, S. Savvin, **P. Barriobero-Vila**, *Monitoring the structural integrity of multi wire arc additive manufacturing parts (MWAAM)*, Institut Laue-Langevin (ILL), PhD Seminar (2023) [Link](#)
56. J. Munk, C. Bütow, F. Lauck, L. Werling, K. Artzt, J. Gussone, W. Kitsche, M. Siggel, J. Kleinert, **P. Barriobero-Vila**, D. Suslov, G. Requena, J. Haubrich, *Additive Manufacturing research for next generation space propulsion systems*, Rapid.Tech 3D, Erfurt, Germany (2024) [Link](#)
57. S. Tumminello, J. Gussone, K. Bugelnig, S. Fries, M. Rackel, A. Stark, N. Schell, **P. Barriobero-Vila**, J. Haubrich, G. Requena, *Precipitation simulations of the O-phase in Ti₂AlNb alloys synthesized by laser powder bed fusion*, 51st International Conference on Computer Coupling of Phase Diagrams and Thermochemistry, Mannheim, Germany (2024) [Link](#)
58. I. Cazic, **P. Barriobero-Vila**, P. Anvari, U. Hecht, *Texture and texture mitigation in the dual phase hypo-eutectic alloy Al_{0.75}CrFeNi_{2.1} manufactured by laser powder bed fusion*, ICOTOM 20th International Conference on textures of Materials, Metz, France (2024) [Link](#)
59. A. Mejia,-Reinoso, S. Cabeza, S. Savvin, **P. Barriobero-Vila**, *Influence of temperature on the load partition of an additively manufactured 316L steel determined by time-resolved neutron diffraction*, MSE congress and exhibition on advanced materials, Darmstadt, Germany (2024) [Link](#)
60. M. Oliboni, E. Battiston, **P. Barriobero-Vila**, E. Basagaña, J.M. Cabrera, I. Calliari, J.E. Rey, R. Elvira, T. Faraji, L. Pezzato, M. Pigato, U. Prahl, M. Zapf, A. Vilalta, A. Mazzi, *Life cycle analysis of innovative automotive lightweight applications of low-density steels: preliminary overview*, 35th CIRP Design Conference, Patras, Greece (2025) [Link](#)
61. M. Janeček, K. Bartha, A. Veverková, J. Veselý, **P. Barriobero-Vila**, *Phase transformations in ultrafine-grained Ti₁₅Mo alloy prepared by severe plastic deformation*, TMS Annual Meeting and Exhibition, Las Vegas, USA (2025) [Link](#)
62. R. Elvira, J. Albarrán, M. Zapf, J. M. Cabrera, I. Calliari, M. Oliboni, T. Faraji, U. Prahl, J. E. Rey Castañeda, **P. Barriobero-Vila**, *Design and selection of suitable Fe-Mn-Al-C low-density forging steels for massive components*, 24th International Forging Congress (IFC), Frankfurt, Germany (2025) [Link](#)
63. D.S. Avila, P. Saint-Martin, **P. Barriobero-Vila**, S. E. Offerman, M.J. Santofimia, *Kinetics of athermal martensite formation studied by in situ X-ray diffraction*, 9th International Conference on Solid-Solid Phase Transformations in Inorganic Materials (PTM), Delft, Netherlands (2025) [Link](#)
64. C.E. Madrid-Cortés, E. Abah, F. Fauth, L. Hoppe, **P. Barriobero-Vila**, *Effect of printing parameters on the microstructure of blue laser directed energy deposition of a CuCrZr alloy*, FEMS EUROMAT 2025, Granada (2025) [Link](#)

65. J.E. Rey-Castañeda, T. Faraji, M. Zapf, R. Elvira, J.M. Cabrera-Marrero, N. Schell, A. Stark, **P. Barriobero-Vila**, *An in-situ analysis of the kinetics of κ -Carbide precipitation in Fe-Mn-Al-C low density steels*, FEMS EUROMAT 2025, Granada (2025) [Link](#)
66. A. Mejía-Reinoso, S. Cabeza, S. Savvin, **P. Barriobero-Vila**, *In-situ neutron microstructural and mechanical characterization of WL –DED 316L stainless steel*, FEMS EUROMAT 2025, Granada (2025) [Link](#)
67. C. Madrid, E. Abah, A. Garcia, C. Armengol, L. Hoppe, F. Fauth, N. Schell, A. Stark, **P. Barriobero-Vila**, *Blue Laser Directed Energy Deposition of a CuCrZr Alloy: Effect of Process Parameters on the microstructure*, Alloys for Additive Manufacturing Symposium-AAMS 2025, Neuchâtel, Switzerland (2025) [Link](#)
68. J.A. Muñoz, J.M. Cabrera, R. Nemmour, **P. Barriobero-Vila**, *3D-Printed heterostructured copper-iron composite manufactured by direct energy deposition*, The 9th International Conference on Solid-Solid Phase Transformations in Inorganic Materials, 7 - 11 July 2025, Delft, The Netherlands. [Link](#)
69. M. Grande, J. Calvo, J.M. Cabrera, S. Fernández, F. Fenollosa, **P. Barriobero-Vila**, J.F. Almagro, A. Nuñez, E. Real, I. Arrayago, J.A. Sanz, *3D printing of ER308L structural components by means of a novel double-wire TIG-WAAM technology*, The International Conference on Stability and Ductility of Steel Structures (SDSS2025), Barcelona, 8-10 September, 2025. [Link](#)
70. **P. Barriobero-Vila**, *Real-time monitoring of engineering alloys under manufacturing and service conditions*, IMDEA Seminar, Madrid, Spain, 11.09.2025, Invited. [Link](#)
71. I. Calliari, M. Pigato, T. Faraji, M. Zapf, E. Basagaña, A. Vilalta, J.M. Rey, J.M. Cabrera, P. M. Oliboni, A. Mazzi, **P. Barriobero-Vila**, *Optimization of Fe-Mn-Al-C low-density steels for forging application*, 7th ESTAD: European Steel Technology and Application Days 2025, Verona, Italy, 6-9.10.2025. [Link](#)
72. J.E. Castañeda, T. Faraji, R. Elvira, J.M. Cabrera, M. Zapf, I. Calliari, A. Mazzi, M. Oliboni, A. Vilalta, E. Basagaña, U. Prah, **P. Barriobero-Vila**, *Designing the next generation of low-density steels*, MEFORM, Freiberg, Germany, 19-20.03.2026. [Link](#)
73. J.E. Castañeda, T. Faraji, M. Zapf, U. Prah, R. Elvira, J.M. Cabrera, N. Schell, A. Stark, **P. Barriobero-Vila**, *Cinética de precipitación de carburo κ en un acero de baja densidad Fe-Mn-Al-C durante el enfriamiento continuo: estudio in-situ por sincrotrón*, 7^{mo} Simposium de Materiales Sustentabilidad e Innovación Tecnológica (SIMASIT), Centro de Investigación y de Estudios Avanzados (CINVESTAV) Unidad Saltillo, 13-15.05.2026. [Link](#)
74. A. Mejia, S. Cabeza, **P. Barriobero-Vila**, *Bulk neutron microstructural and mechanical characterization of Laser Wire Directed Energy Deposition 316L stainless steel*, XVIII Congreso Nacional de Materiales (CNMAT 2026), Portugalete, Spain, 16-19.06.2026. [Link](#)
75. J.E. Castañeda, T. Faraji, M. Zapf, U. Prah, R. Elvira, J.M. Cabrera, N. Schell, A. Stark, **P. Barriobero-Vila**, *Continuous phase evolution of a Fe-Mn-Al-C low-density steel during thermal treatment revealed by in situ high-energy synchrotron X-ray diffraction*, International Materials Research Congress, Cancun, Mexico, 16-20.08.2026. [Link](#)
76. J. E. Castañeda, I. Calliari, F. Ahani, T. Faraji, M. Zapf, U. Prah, R. Elvira, J. M. Cabrera, **P. Barriobero-Vila**, *Chemical and microstructural characterization of Fe–Mn–Al–C low-density steels produced by different casting routes*, International Materials Research Congress, Cancun, Mexico, 16-20.08.2026. [Link](#)
77. A. Mejia-Reinoso, S. Cabeza, S. Savvin, **P. Barriobero-Vila**, *Bulk characterization of Laser-Wire Directed Energy Deposition 316L stainless steel by in situ neutron diffraction*, MSE congress and exhibition on advanced materials, Darmstadt, Germany, 29.09-01.10.2026. [Link](#)
78. C. Madrid, L. Renna, C. Armengol, L. Hoppe, N. Shell, A. Stark, **P. Barriobero-Vila**, *Influence of Blue Laser-Wire Directed Energy Deposition Parameters on the Microstructure and Mechanical Properties of SS316L*, MSE congress and exhibition on advanced materials, Darmstadt, Germany 29.09-01.10.2026. [Link](#)
79. J.E. Rey, T. Faraji, M. Zapf, U. Prah, R. Elvira, J.M. Cabrera, N. Schell, A. Stark, **P. Barriobero-Vila**, *Cooling-rate-dependent phase evolution and κ -carbide precipitation mechanisms of a low-density Fe-Mn-Al-C steel revealed by in-situ synchrotron diffraction*, MSE congress and exhibition on advanced materials, Darmstadt, Germany. 29.09-01.10.2026. [Link](#)
80. J. A. Muñoz, C. Madrid, N. Shell, A. Stark, L. Hoppe, **P. Barriobero-Vila**, *Additive manufacturing of copper-steel bimetallic materials using blue laser directed energy deposition*, MSE congress and exhibition on advanced materials, Darmstadt, Germany. 29.09-01.10.2026. [Link](#)

81. D.K.M. Isidorio, L. Melk, T. Faraji, J. E. R. Castañeda, B. E. De La Torre, M. Zapf, **P. Barriobero-Vila**, M. J. Santofimia, *Alloy Design of Medium Manganese Steels for Mining Applications: A CALPHAD and Stacking Fault Energy Study*, MSE congress and exhibition on advanced materials, Darmstadt, Germany. 29.09-01.10.2026. [Link](#)
82. J. A. Muñoz, C. Madrid, N. Shell, A. Stark, L. Hoppe, **P. Barriobero-Vila**, *Transition microstructures between copper and steel in a bimetallic material fabricated by blue laser directed energy deposition*, Alloys for Additive Manufacturing Symposium-AAMS 2026, Cambridge, United Kingdom, 16-18.09.2026. [Link](#)
83. C. Madrid, L. Renna, C. Armengol-Castellví, L. Hoppe, N. Schell, E. Maawad, **P. Barriobero-Vila**, *Influence of the intrinsic heat treatment during blue laser wire-DED on microstructure heterogeneity in SS316L*, Alloys for Additive Manufacturing Symposium-AAMS 2026, Cambridge, United Kingdom, 16-18.09.2026. [Link](#)
85. M. Janeček, K. Bartha, J. Vesely, **P. Barriobero-Vila**, *Phase transitions in advanced biomedical Ti alloys*, ICNME 2026: The 13th International Conference on Nanomaterials and Materials Engineering, Chiang Mai, Thailand, 11-14.12.2026. [Link](#)

C.3. Research projects

Table C3.1. Last 10 competitive projects as PI (chronological order).

1. **>30 projects awarded as PI for performing experiments at large-scale synchrotron and neutron facilities (see following Table C3.2);** 2011-2026; >352 shifts equivalent to 2,818 h of experiments (1 shift=8h of experiments); Role: PI (TUWIEN, DLR, UPC).
2. **Ramón y Cajal Programme**
Ministry of Science (MICINN) RYC2020-029585-I; 2022-2026; Role: PI.
3. **LIGHTFORGE: Sustainable forging steels for automotive lightweighting**
European Research Fund for Coal and Steel (RFCS) GA:101112392; 2023-2026; 5 partners; Role: PI and project coordinator.
4. **MWAAM: Monitoring the structural integrity of multi wire arc additive manufacturing parts**
Joint Ph.D. Programme between Institut Max von Laue-Paul Langevin (ILL) and UPC; GA: 2091; 2023-2026; Role: PI.
5. **Determination of the causes of die damage during trimming of forged parts**
Technology transfer contract; 2024; Role: PI.
6. **AddiCool: Adaptive cooling technology for high performance die and mold manufacturing**
Ref: 2023 PROD 00078; 2024-2026; AGAUR- Agency for Management of University and Research Grants of Catalonia; Call: Modality B: Producte; ID: BWXH97418; Role: PI.
7. **LoReAD: Functionally graded metallic materials with increased microstructure compatibility enabled by low-reflectivity additive manufacturing**
Spanish Research Agency (AEI); Call: Proyectos de Generación de Conocimiento; ID: PID2022-141670OA-I00; 2023-08.2026; Role: PI.
8. **Implementation of digital technology for thermal control of the directed energy deposition process;** Programa de Apoyo a los Digital Innovation Hubs (PADIH); Ref. 2024/DIH_01/000548; 2025; Role: PI.
9. **SUMMSEED: SUstainable Medium Manganese StEELs for cost-efficient applications in heavy inDustries**
European Research Fund for Coal and Steel (RFCS); GA: 101216579. 2025-2028; 7 partners; Role: PI and project coordinator.
10. **REFACTOR3D: Qualification of high-value industrial metallic components through DED remanufacturing processes**
Proyectos de Colaboración Público-Privada 2024, Ref. CPP2024-011750; 2025-2028; 5 partners; Role: PI.

Table C3.2. Selected competitive peer-reviewed projects awarded as PI for performing experiments at large-scale synchrotron- and neutron-facilities (chronological order): European Synchrotron Radiation Facility (ESRF), France; German Electron Synchrotron (DESY), Germany; Institute Laue-Langevin (ILL), France;

Paul Scherrer Institut (**PSI**), Switzerland; ALBA synchrotron (**ALBA**), Spain; ISIS Neutron and Muon Source (**ISIS**), United Kingdom. 1 shift=8h of experiments.

1. **ESRF-ID15**; *Kinetics of phase transformations in titanium alloys*; MA1268; 06/04/2011-10/04/2011 (12 shifts).
2. **DESY-P06**; *Microstructural tracking of alloying elements in Ti-alloys*; I-20130323 EC; 15/01/2014-17/01/2014 (9 shifts).
3. **ESRF-ID16A**; *Three-dimensional structure of Ti interfaces*; MA-2783; 09/10/2015-12/10/2015 (12 shifts).
4. **ESRF-ID16A**; *Microstructure optimization of titanium alloys produced by additive manufacturing*; MA3006; 20/04/2016-25/06/2016 (18 shifts).
5. **DESY-P07**; *Development of versatile microstructures for metastable beta Ti-alloys*; I-20150533 EC; 09/05/2016-11/05/2016 (6 shifts).
6. **ESRF-ID22**; *Development of versatile microstructures for steels and metastable Beta Ti-alloys*; MA-2909; 21/07/2016-25/07/2016 (12 shifts).
7. **DESY-P07**; *Intrinsic microstructural optimization of titanium alloys during selective laser melting*; I-20170438; 19/10/2017-23/10/2017 (12 shifts).
8. **ILL-SALSA**; *Formation of residual stresses during fabrication of a Ti-6Al-4V rocket-engine impeller produced by selective laser melting*; I-02-225; 11/06/2018-16/06/2018 (18 shifts).
9. **DESY-P07**; *Tailoring titanium alloys to additive manufacturing*; I-20180384; 02/11/2018-07/11/2018 (14.75 shifts).
10. **ESRF-ID16B**; *Re-interpreting titanium alloys for 3D printing*; MA-4354; 04/10/2018-06/10/2018 (9 shifts).
11. **ESRF-ID16A**; *Ultrafine eutectic alloys for a new generation of metals for additive manufacturing*; MA-4351; 24/08/2018-28/08/2018 (12 shifts).
12. **DESY-P07**; *Tailoring Ti-6Al-4V to additive manufacturing*; I-20180949; 08/04/2019-12/04/2019 (8.75 shifts).
13. **DESY-P07**; *Deformation of ultrafine eutectic Ti-based alloys for additive manufacturing*; I-20190364; 27/09/2019-30/09/2019 (9 shifts).
14. **PSI-microXAS**; *Ultrafast laser-driven kinetics: tailoring titanium alloys to 3D printing*; 20201718; 11/05/2021-15/05/2021 (15 shifts).
15. **DESY-P07**; *Phase transformations drive microstructure control in Ti-alloys for additive manufacturing*; I-20191042; 23/08/2020-26/08/2020 (8.75 shifts).
16. **DESY-P07**; *Deformation twinning in additive manufacturing titanium alloys*; I-20210694; 23/10/2021-27/10/2021 (11.75 shifts).
17. **DESY-P07**; *Grain refinement by rapid heating: a way for controlling the microstructure of selective laser melting Ti-6Al-4V*; I-20211264 EC; 14/03/2022-16/03/2022 (5.75 shifts).
18. **DESY-P07**; *Phase transformations and deformation behavior of refractory high entropy alloys for additive manufacturing*; I-20211495; 17/06/2022-20/06/2022 (9 shifts).
19. **DESY-P07**; *In-situ characterization of deformation-induced phase transformations during low-temperature creep of a Fe-based shape memory alloy*; I-20220160 EC; 29/10/2022-01/11/2022 (9 shifts).
20. **DESY-P02.1**; *In-situ synchrotron X-ray characterization of deformation mechanisms of non-equiatomic CoCrFeMnNi multi-principal element alloys room and high temperature tests*; I-20220994; 30/03/2022-03/04/2022 (12 shifts).
21. **DESY-P07**; *Lattice strain evolution of distinct phases in the eutectic high entropy alloy Al_{0.75}CrFeNi_{2.1} with minor element additions*; I-20221372 EC; 29/04/2023-02/05/2023 (9 shifts).
22. **DESY-P07**; *Optimization of the quenching and partitioning process for novel advanced high strength steels*; I-20230198 EC; 21/10/2023-23/10/2023 (6 shifts).
23. **ALBA-MSPD**; *Optimization of the processing of advanced high strength steels*; 2023027381; 05/12/2023-08/12/2023 (12 shifts).

24. **ILL-XTREMED**, *Phase monitoring of steel wire arc additive manufacturing*; CRG-3115, 27/03/2024-29/03/2024 (9 shifts).
25. **ILL-SALSA**, *Monitoring the deformation behaviour of wire arc additive manufacturing parts by neutron diffraction*; INTER-594; 08/04/2024-11/04/2024 (12 shifts).
26. **ALBA-MSPD**; *Study of silicon carbide dissociation to development of self-lubricating high entropy alloys*; 2024028301; 07/11/2024-09/11/2024 (9 shifts).
27. **ILL-XTREMED**, *Phase transformation kinetics of steel wire arc additive manufacturing*; 1-01-204; 17/05/2024-20/05/2024 (12 shifts).
28. **ILL-SALSA**, *Influence of temperature on the load partition evolution of an additively manufactured 316L steel determined by time-resolved neutron diffraction*; INTER-601; 17/06/2024-20/06/2024 (12 shifts).
29. **DESY-P07**; *Investigation of in-situ deformation behaviour of high-manganese steel alloys produced by laser powder bed fusion*, I-20241142 EC; 07/04/2025-09/04/2025 (5.75 shifts).
30. **ISIS-ENGINX**; *Internal strain evolution of wire and powder additively manufactured 316L during in-situ tensile loading at high temperature*; 2420308; 21/05/2015-25/05/2025 (15 shifts).
31. **ILL-SALSA**, *Validation of thermomechanical simulation of residual stress distribution in 316L directed energy deposition steel by neutron diffraction*; 94704.
32. **DESY-P07**; *Synchrotron based in-situ deformation studies on laser powder bed fusion manufactured aluminium alloys*, I-20250263 EC; 06/10/2025-09/10/2025 (9 shifts).
33. **DESY-P07**; *In situ high-energy synchrotron X-ray diffraction reveals the deformation kinetics and Invar effect in high-entropy alloys*; I-20250634 EC; 09/10/2025-12/10/2025 (9 shifts).
34. **DESY-P07**; *Monitoring the precipitation kinetics of novel low-density steels*; I-20251207 EC; 24/08/2026-28/08/2026 (8.75 shifts).

C.4. Peer recognition

Fellowships and awards

- 2026: Gleeble award: 34th International Materials Research Congress (best presentation)
- 2025: ICREA Senior
- 2024: Nominated to step 2 (interview) in ERC Consolidator Grant 2024
- 2024: Joan Oró Ph.D. Fellowship (J. E. Rey-Castañeda).
- 2023: Juan de la Cierva Postdoc Fellowship (E. Norouzi). Awarded but not fulfilled
- 2022: Ramón y Cajal Programme 2020 (success rate ~10-15%)
- 2021: Marie Curie MSCA-COFUND-FP Beatriz de Pinós (success rate ~15-19%). Awarded but not fulfilled
- 2021: Marie Curie MSCA-COFUND-FP TecnioSpring (success rate ~20-25%). Awarded but not fulfilled
- 2021: Maria Zambrano grant – Next generation EU funding. Awarded but not fulfilled
- 2019: DLR Science Award, German Aerospace Center (DLR), Germany [Link](#)
(*Distinguished contribution to the development of alloys for additive manufacturing*)
- 2016-2020: Selected research highlights:
- The European Synchrotron Radiation Facility (ESRF) [Link](#),
“Towards rational manufacturing of titanium-based alloys”
- German Electron Synchrotron (DESY) [Link](#)
“Engineering alloys for 3D printing.”
- Reported own research in press [Link](#)
“Re-interpreting metallic alloys for additive manufacturing”
- 2015: Peter Emil Varga-Prize Best dissertation, Vienna University of Technology, Austria [Link](#)
- 2015: Robert L. Snyder Grant 2015, International Centre for Diffraction Data (ICDD)

2015: Best publication in February 2015 and finalist for the Robert W. Cahn Best Paper Prize of the Journal of Materials Science for “P. Barriobero-Vila et al., J Mater Sci 50 (2015)”

2010: Erasmus Programme, Vienna University of Technology, Austria

Supervision of students and research fellows

2022-Today: **Technical University of Catalonia (UPC), Spain**

Ph.D.: C. Madrid-Cortés, J. E. Rey-Castañeda, A. Mejía-Reinoso, L. Figueroa-Maturana

Graduate / undergraduate: N. Zhi, C. Ovejero, B. Bishwokarma, C. Lassus, M. Farreras, G. Rousse, O. Marcet, L. Renna, A. Garcia, C. Armengol, J. López, E. Abah, R. Nemmour, D. Domeque, F. Colomé.

2017–2022: **German Aerospace Center (DLR), Institute of Materials Research, Germany.**

Postdoc: J.M. Vallejos, M. Poliserpi, I. Cazic.

Ph. D.: M. Knieps, M. Jaydeepkumar.

Graduate / undergraduate: (1-2 students/year of 3–6 months term) including: N. Attané, K. Silva.

2010–2017: **Vienna University of Technology (TU WIEN), Austria**

Postdoc: V. Biancardi.

Ph. D.: M. Ollat, I. Hinterlechner.

Graduate / undergraduate: (1-2 students/year) including N. Cebik, K. Dupont, P. Wiehoff, L. Jacquemet, A. Zisser, I. Korkmaz, E. Zehetner, D. Lorrain, A. Muhsin-Bekir, J. Sahota.

Teaching

2022-2026: **Technical University of Catalonia (UPC), Spain**

Lessons: *Physical Metallurgy* (295707), *Metallic Materials* (295701), *Structure and properties of metallic alloys* (295756)

2020: **AQU: Agency for the Quality of the Catalan University System**

Favourable Reports for tenure-track lecturer and accreditation of research

2012–2017: **Vienna University of Technology (TUWIEN), Austria.**

Lecturer

Lessons: *Fundamentals of Materials Science, Engineering Alloys, Light Metals.*

Languages: English (proficiency), German (very good and spoken in private life), Catalan (native), Spanish (native).

Reviewing activities

2018-Today: Project proposals:

Czech science foundation (GACR)

Spanish State Research Agency (AEI)

EQA

among others.

2019–2022: International advisory board, Workshop on Additive Manufacturing

Institut Laue-Langevin (ILL), European Synchrotron Radiation Facility (ESRF), France.

2015–Today: Referee for peer-reviewed journals:

Springer Nature: Nature, Nature Communications, Communications Materials, Metallurgical and Materials Transactions A, MRS Communications

Elsevier: Additive Manufacturing, Materials Science and Engineering A, Materials and Design, Journal of Alloys and Compounds, Materials Letters, Materials Characterization;

Wiley-VCH: Advanced Materials, Advanced Engineering Materials, Journal of Applied Crystallography;

Taylor & Francis: Materials Research Letters, Materials Science and Technology;

MDPI: Metals and Journal of Manufacturing and Materials Processing Materials.

among others.