

José Alberto PADRÓN NAVARTA

Born September 28th 1982

One child of ten years old

Spanish Citizen

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Freestyle summary

I am an Earth scientist investigating the cycling and fate of volatiles within the Earth's mantle. The challenge of understanding and constraining the deep Earth's water cycle is both a significant scientific endeavour and a matter of societal importance. To address this complex issue, I have adopted a multidisciplinary approach throughout my career, integrating tools from various fields. My expertise spans Chemical Thermodynamics (computation of mineral assemblages, fluid speciation, creation and modification of mineral solid solutions), Experimental Petrology (Piston-cylinder), Mineral Physics (infrared spectroscopy, solid-state diffusion, point defects chemistry, and rheology), Geochemistry (covering major, trace elements and stable isotopes), Crystallography (employing Electron Backscattered Diffraction and Transmission Electron Microscopy), and natural observations (derived from high-pressure orogenic belts). These diverse methodologies have been instrumental in unravelling the existence of the much-speculated ultra-deep hidden oceans.

Higher Education and Research Experience

Since 12/2023	Permanent research position at Consejo Superior de Investigaciones Científicas (CSIC) in the Andalusian Institute of Earth Sciences (IACT, Granada, Spain).
09/2020 – 12/2023	Ramón y Cajal research fellow (Spanish Research Council CSIC).
10/2018	HDR, Habilitation à diriger des recherches, <i>Université de Montpellier</i> , France. Committee: J. Ingrin, E. Balan, B. Reynard, N. Bolfan-Casanova (examiner).
Since 10/2014	Permanent research position at the Centre National de la Recherche Scientifique (CNRS). UMR5243 Géosciences Montpellier (France). <i>On secondment until August 2025.</i>
7/2011 – 7/2014	Marie Curie Postdoctoral Fellow (International Outgoing Fellowship IOF, FP7 PIOF-GA-2010-273017, project HISLa-DR. From 7/2011 to 7/2014. Géosciences Montpellier (France)/Research School of Earth Sciences (Australia).
4/2010 – 4/2011	Postdoctoral Research Fellow at the Department of Mineralogy and Petrology – University of Granada (Spain).
3/2006 – 3/2010	Ph.D in Earth Sciences at University of Granada, Spain (PhD grant funded by the Spanish Government, FPU program).
09/2007	DEA (Master degree), University of Granada, Spain.

6/2004 – 12/2004	Undergraduate scholarship: Introduction to research (funded by the University of Granada, Spain).
2000-2005	Degree in Geology. University of Granada (Spain).

PhD on Earth Science (24th March 2010)

Thesis title: A coupled petrological and petrophysical study of high-pressure dehydration reactions in subduction settings: Insights from the Betic Cordillera and the Kohistan Paleo-Arc

<http://digibug.ugr.es/bitstream/10481/4942/1/18684889.pdf>

University of Granada (Spain)

Supervisors: Gómez-Pugnaire MT, Garrido CJ and López Sánchez-Vizcaíno V./ Committee: Prof. F. Gervilla, Prof. A. García Casco, Dr. A. Tommasi, Prof. M. Mellini, Dr. M. Sánchez-Gómez

2006 – 2010 PhD Scholarship funded by the Spanish Government (FPU program), University of Granada, Spain, including 3 research stay grants (total of 9 months) in Australia and France.

Teaching activity

2023	One-week course on thermodynamic modeling (co-organized with V. López Sánchez-Vizcaíno and M. Menzel, Institute of Earth Sciences, Granada).
2022	One week-long course on thermodynamic modelling at the Laboratoire de Magmas et Volcans, Clérmont-Ferrand (co-organised with other two French colleagues). Attended by 20 participants including PhD students and established researchers.
2019-2020	Applied chemical thermodynamics in petrology (3 rd year undergraduate students). HLST608 (18 h per year). Pétrologie approfondie (Lectures given in French).
2014	Hydrogen diffusion in minerals. Theory and practical examples with Matlab (Master 2, Géoscience Montpellier). 3 hours course and supervising of a practical work (equivalent to 10 h). Lectures given in French.
2011-2013	Research School of Earth Sciences (Australian National University, Canberra). 3 hours of lectures and 9 hours of practicum of the course "Magmatism and Metamorphism" (EMSC 3024). Lectures given in English.
2008-2010	Dept. of Mineralogy and Petrology, University of Granada (Spain). Lectures and practical courses for undergraduate students in Geology on Phase Equilibria in Metamorphic Petrology. Lectures given in Spanish.

Awards

2016	CNRS for excellence in science and mentoring ("Prime d'encadrement doctoral et de recherche").
2007	University of Granada Medal in recognition of the first national prize for students majoring in Geology.
2006	Award from the Ministry of Education and Science (Spanish Government) for best academic record for students majoring in Geology in Spain (First prize, BOE nº 238).
2005	Award from the Academy of Mathematical, Physical, Chemical and Natural Sciences of Granada.

Workshops

July 8-9, 2023	Understanding subduction through the study of exhumed terranes 2-DAY HYBRID WORKSHOP. Goldschmidt Workshop 2023 (Lyon, France) .
June 28-29, 2021	Fluid-rock interaction and ore deposits in the Earth's crust: coupling of field and experimental methods with numerical modeling. Goldschmidt 2021 .
Aug 30- Sept. 3, 2021	Escuela Española de Altas Presiones (EEAP 2021). University of Valencia. MALTA group, Consolider.

November 7-11, 2016	2 nd Summer School of Recrystallization Mechanisms in Materials (Sète, France).
February 1-5, 2016	CREEP (Marie Curie Initial Training Network of the EU Seventh Framework Programme) Short course 1 (Sète, France) "Introduction to numerical geodynamic modelling" by Paul Tackley and Taras Gerya from the ETH in Zurich.
January 27-31, 2016	CREEP (Marie Curie Initial Training Network of the EU Seventh Framework Programme) 1 st Workshop, Sète France.
September 7-9, 2015	CNRS course on Matlab.
October 22-23, 2013	MTEX: a MATLAB Toolbox for Quantitative Texture Analysis. Géosciences Montpellier (France).
October 2-3 & 15, 2012	Monte Carlo methods in a nutshell. Research School of Earth Sciences short course. RSES, ANU (Australia).
July 2-7, 2011	Nature of the plate interface in Subduction Zones. ILP Task force IX Workshop (Piemonte, Italy).
January 18-22, 2010	Crystal2Plate Workshop (CRYSTAL2PLATE Marie Curie Initial Training Network of the EU Seventh Framework Programme), Estepona (Málaga). Spain.
October 3-8, 2010	Delta-Min Network short-course on microstructures. Delta-Min (Marie Curie Initial Training Network of the EU Seventh Framework Programme). Santorini (Grecia).
July 5-8, 2010	Thermodynamics: calculating phase equilibria and physical properties using PERPLE_X by James Connolly, Crystal2Plate short-course (CRYSTAL2PLATE Marie Curie Initial Training Network of the EU Seventh Framework Programme), Géosciences Montpellier, Université Montpellier 2, France.
June 27 - July 5, 2009	European Intensive Seminars of Petrology (EURISPET, EU Sixth Framework Programme): high-pressure metamorphism and subduction zones. University of Granada, Spain.
August 21-31, 2008	European Intensive Seminars of Petrology (EURISPET, EU Sixth Framework Programme): Petrology of the lithosphere in extensional settings. Eötvös University Budapest, Hungary.
January 31-Feb 9, 2008	European Intensive Seminars of Petrology (EURISPET, EU Sixth Framework Programme): Isotopes applied to petrological problems. The Australian National University, Canberra, Australia.

Organization of scientific sessions and meetings

2024	Co-organizer of the 5th international meeting "Serpentine Days." September 23-25, Granada, Spain.
2022	Co-convenor of the session Minerals and rocks under stress: a way to unravel geological processes. Convener: Nicola Campomenosi Co-conveners: Mattia L. Mazzucchelli, & JA Padrón-Navarta (International Mineralogical Association, IMA Lyon 2022 , 18-22 July).
2022	Convener of the session Serpentinites and beyond: the back-and-forth journey of water into the mantle. Convener: JA Padrón-Navarta Co-conveners: Samuel Angiboust & Oliver Plümpner (International Mineralogical Association, IMA Lyon 2022 , 18-22 July).
2021	Co-convenor of the session 2b - Water in nominally anhydrous minerals: detection, distribution and consequences. Convener: M. Jollands Co-conveners: JA. Padrón-Navarta, S. Demouchy. Goldschmidt 2021 (4-9 July Lyon).
2021	Co-convenor of the session GMPV6.1 From the nano- to the orogen-scale: metamorphism, deformation and fluid-rock interaction. Convener: F. Giuntoli Co-conveners: F. Piccoli, R. Palin, A. Pluymakers, P. Manzotti, O. Plümpner, JA. Padrón-Navarta, E. Schwarzenbach (EGU Meeting , 19–30 April).
2020	Co-convenor of the session GMPV7.1 The metamorphic rock record: pieces of the lithospheric puzzle. Convener: M. Smit Co-conveners: D. Rubatto, T. Raimondo, L. Tajcmanova, F. Piccoli, JA. Padrón-Navarta, C. Tiraboschi (EGU Meeting , 4–8 May).
2020	Co-convenor of the session GMPV2.1 Earth as a tectonically living planet: the role of water. Convener: H. Ni Co-conveners: I. Kovács, J. Brodholt, JA. Padrón-Navarta, Q-K Xia, M. Hirschmann, R. Stalder, Y-F Zheng (EGU Meeting , 4–8 May).

- 2018 Co-organizer of the CNRS Petrochro Summer School 2018, 18-20 September, Sète, France. Main organizer: Bénédicte Cenki-Tok.
- 2018 Co-convenor of the session "How to apply for the Marie Skłodowska-Curie grants Individual Fellowship and European Training Network", Vienna, Austria (**EGU Meeting**, 9-13 April). Convener: Sylvia Walter | Co-Conveners: Jannick Ingrin, Daniela Henkel, José Alberto Padrón-Navarta
- 2016 Co-organizer of the 4th international "Serpentine days". 25-29 September, Sète, France.
<http://serpentine2016.gm.univ-montp2.fr/>
- 2016 Co-convenor of the session "Progress in Metamorphic Geology: From Ultrahigh-temperature Terrains to Subduction Zones" Vienna, Austria (**EGU Meeting**, 17-22 April). Convener: S. Ferrero | Co-Conveners: E. Grosch, P. Goncalves, P. Lanari, JA Padrón-Navarta
- 2011 Co-convenor of the session GMPV34 The subduction interface: cross-disciplinary views from Geodynamics-Geochemistry-Seismology, Vienna, Austria (**EGU Meeting**, 03-08 April). Convener: P. Agard | Co-Conveners: B. Hacker, A.I Okay, T. Gerya, JA. Padrón-Navarta, F. Tilmann, N. Kukowski, V. López Sánchez-Vizcaíno.
- 2009 Fieldtrip co-organizer together with Dr. Vicente López Sánchez-Vizcaíno to the Cerro del Almirez (Almería, Spain) during the **EURISPET (EU Sixth Framework Programme)** workshop at the University of Granada (Spain).

Institutional responsibilities

- 2015 – 2019 School Seminar Coordinator (17 national and international seminars per year), Géosciences Montpellier, University of Montpellier (France).
- 2016 – 2019 Microprobe Scientific board, Géosciences Montpellier (France).
- 2015 – 2020 Elected member to represent CNRS researchers at Géosciences Montpellier (France).
- 2015 – 2017 Committee member of the internal information bulletin of Géosciences Montpellier (France).

Commission of trust

PhD Thesis committee (8):

- A. Boutier (Genesis and migration of abiotic hydrocarbons in subduction zones, University of Bologna, Italy, Supervisor: A. Vitale-Brovarone, July 2022)
- S. Guerini (Structure, geochemistry and petrology of serpentinites and listvenites in the Western Alps: constraints on carbonation and element mobilization from subduction to ophiolite emplacement, University of Milan, Italy, Supervisor: P. Tartarotti, June 2022)
- J. F. Vieira Duarte (Redox conditions and sulphide-oxide-silicate mineral and fluid geochemistry of subducted hydrous mantle rocks, University of Bern, Switzerland, Supervisors: J. Hermann and T. Pettke, May 2022)
- J. Muñoz Montecinos (Fluid pulses along the subduction interface: integrated field and retro-geochemical approaches, Institut de Physique du Globe de Paris - Université de Paris, 2021).
- L. Martinek (Effet de la fugacité d'oxygène sur le stockage des fluides C et H dans le manteau Terrestre, University of Clermont-Auvergne, 2019).
- H. Pilorgé (Perméabilité et transport des fluides dans les zones de subduction, University of Lyon, 2017).
- M. Merkulova (Comportement du fer et autres ions échangeurs d'électrons en contexte de subduction, University of Grenoble Alps, 2016).
- C. Villanova de Benavent (Compositional and structural characterisation of Ni-phyllosilicates in hydrous silicate type Ni-laterite deposits, University of Barcelona, 2015).
- 2021 Guest Editor for the Tectonophysics Special Issue *Deformation processes in the ductile crust and mantle, seismic anisotropy, ocean ridge dynamics: A special issue in honor of Adolphe Nicolas*.
- Since 2019 Associate Editor of *Ofioliti*.
- Since 2010 Active reviewer for A-ranks journals (Nature of Geosciences, Geology, Earth and Planetary Science Letters, Lithos, Journal of Petrology, Journal of Metamorphic Geology, Contributions to Mineralogy and Petrology, Physics and Chemistry of Minerals, European Journal of

Mineralogy, American Mineralogist, International Journal of Earth Sciences, American Journal of Science, Geochimica et Cosmochimica Acta, Tectonophysics, Terra Nova). Between 5 to 8 per year.

Since 2010 Reviewer for ANR, NSF and DFG.

Membership of scientific societies

Since 2006 Member of the Mineralogical Society of America (MSA).
 Since 2022 Member of the Geological Society of Spain (SGA).

Technical skills

Thermodynamics soft. PerpleX (phase diagrams, phase equilibria, thermodynamic data, creation of mineral solid solution models, fluid infiltration models, electrolytic speciation modelling), GEMS-Selektor (metasomatic fluid-rock interaction), Thermocalc (thermobarometry).

Laboratory High-pressure experiments using piston-cylinder apparatus, internally-heated gas medium triaxial apparatus (Paterson press), 1-atm high-temperature gas mixing furnace, double-polished section preparation for FTIR.

Analytical techniques Electron Backscattered Diffraction (EBSD), SEM, FTIR and Raman spectrometry, Electron microprobe, LA-ICPMS, optical microscopy.

Specific software CSpace (3D compositional phase diagrams, chemographies), DataGraph, Sigmaplot, Matlab (MTEX), AZtec (EDS/EBSD software), OPUS (FTIR software).

Language programming Matlab and Python (standard libraries).

Languages Spanish: native
 English: fluent
 French: fluent

Grants and Funded projects

Funded projects as **Principal Investigator (PI)**

2023-2028 ERC Consolidator Grant 101088573. "OZ: Deep Earth's Oxygen recycling at subduction Zones". PI: José Alberto Padrón-Navarta. Funding; European Research Council-EU; Granted: 2 000 000 €.

2023-2026 PID2022-136471NB-C21: The role of ultramafic rocks and related rocks in the sulfur and water cycles and their implications for the redox state of subduction zones (RUSTED). Co-IP: C.J. Garrido (IACT, CSIC). Duration: 01/09/2023-30/08/26. Funding: €153 750 (includes a PhD grant).

2023-2025 PROYEXCEL_00757 Oxidizing potential of dehydration fluids from serpentinites in subduction zones (OXIDISE). PI: José Alberto Padrón-Navarta (IACT, CSIC) Type of Participation: Principal Investigator Agency: Projects of Excellence from the Regional Government of Andalusia. Duration: 01/09/2023-30/08/26. Funding: €169,527.

2020-2025 Ramón y Cajal fellowship (salary and 40,000 € research support funds).

2020-2023 Spanish National Funding. DESTINE. High-pressure Dehydration of Serpentinites and its Implications for Subduction Processes. Co-IP: C.J. Garrido. 114,950 € (includes a PhD grant). PID2019-105192GB-I00.

2017-2018 ANR Tremplin. Funding to improve an ERC proposal (Deep Earth Water Transport DeepW) that was favourably evaluated in the first round (A class). 30,000 €.

2016-2018 PHC PROTEUS. Bilateral project between Géosciences Montpellier (France) and the Department of Nanostructured material from the Jozef Stefan Institute (Slovenia). French PI. J.A. Padrón-Navarta and Slovenian PI N. Daneu. 8,000 € for two years.

2016-2017	Fluid transport mechanisms during dehydration: study case of Malenco serpentinite INSU-CNRS (France). (5,000 €). PI: J.A. Padrón-Navarta.
2015-2016	Fluid transport mechanisms during dehydration: study case of Malenco serpentinite INSU-CNRS (France). (7,000 €). PI: J.A. Padrón-Navarta.
2014-2015	Fluid transport and rheology during metamorphic devolatilization in subduction zones (MinCompact: mineral reaction and compaction). INSU-CNRS (France). (5,000 €). PI: J.A. Padrón-Navarta.
2011-2014	Hydrogen Incorporation in Subducting Lithosphere after Dehydration Reactions (HISLa-DR, PIOF-GA-2010-273017). MARIE CURIE FP7 (269,710 € including salary, research costs and participation to conferences). PI: J.A. Padrón-Navarta (J. Hermann and A. Tommasi as reference scientists in the outgoing and return phase respectively).

Funded projects as researcher associated

2022-2023	COOPB20619 Understanding the petrogenesis of alkaline complexes as a potential source of phosphates and rare earth critical elements in NW Africa. IP: CJ Garrido (CSIC-IACT) Funding body/call: CSIC. International Collaboration Projects. Duration: 01/01/22-31/12/23. Funding: 24,000 €.
2020-2022	FEDER-Andalucía. Contribución de la subducción de oficarbonatos al ciclo profundo del carbono. University of Jaén. Funded by the Regional Spanish government (67,675 €). PI: V. López Sánchez-Vizcaíno. RFC/FEDER-UJA 1263042.
2016-2020	Spanish National Funding. Devolatilization, reciclaje de CO ₂ y balances redox asociados a la subduccion de serpentinitas: implicaciones para el ciclo profundo del carbono". PI: V. López Sánchez-Vizcaíno. (62,920 €) CGL2016-75224-R.
2013-2016	Antigorite dehydration in subduction zones: Petrological, geochemical and petrophysical implications. University of Jaén. Funded by the Spanish government (68,000 €). PI: V. López Sánchez-Vizcaíno.
2010-2014	Formation, modification and emplacement of lithospheric mantle in the Betic-Rif Cordillera. CSIC, Spain. Funded by Junta de Andalucía (Spain). PI: C. J. Garrido.
2009-2012	Hydration and dehydration processes of ultramafic rocks in subduction settings: a petrological, geochemical and experimental study. University of Granada (Spain). Funded by the Spanish government (66,000 €). PI: M. T. Pugnare.
2006-2009	Metamorphic, geochemical and petrophysical processes associated to dehydration reactions in subduction settings: Betic Cordillera and Himalaya. University of Granada (Spain). Funded by the Spanish government (60,000 €). PI: M. T. Pugnare.
2006-2008	Thermo-mechanical and chemical erosion of the sublithospheric mantle: new insight from mantle peridotite. University of Granada (Spain) - Université de Montpellier 2 (France) – CNRS (France). Funded by the Spanish government HF2006 (55,000 €) PI: F. Gervilla & A. Tommasi.

Other granted proposals

2024	ES-1434 "Beam-time" in ID06-LVP (LARGE VOLUME PRESS) European Synchrotron ESRF (June 2024, Grenoble, France): Experimental investigation of the seismic properties of powdered and foliated natural serpentinite up 8 GPa and 873 K PI: Padrón-Navarta J.A. Co-investigadores: A. Rosenthal (ESRF) y M. López-Sánchez (Universidad de Oviedo).
2014	Beam-time proposal at Diamond Light Source (April – September 2014, UK): Low-temperature (4.2 K) FTIR spectroscopy of hydrogen at defect sites in the mineral olivine. PI: A.J. Berry. Co-investigators: J. Hermann, J.A. Padrón-Navarta, P. Schofield.
2015	Beam-time proposal at the European Synchrotron ESRF (22 – 27 January 2015, Grenoble, France): Water content and iron speciation in garnet from high pressure experiments in eclogites. PI: A. Rosenthal. Co-investigators: A. Berry, S. Petitgirard, G. Yaxley, D. Frost, J.A. Padrón-Navarta.

Supervision of graduate students

Main supervisor of PhD students

- 2022 – "Redox processes recorded by Nominally Anhydrous Minerals from the Mantle Wedge". Ph.D. candidate: M.Sc. María RAMÓN FERNÁNDEZ. Doctoral thesis in the Earth Sciences Ph.D. program at the University of Granada, starting: 01/09/2022. Thesis Directors: Dr. José Alberto Padrón-Navarta (CSIC, IACT) and Carlos J. Garrido (CSIC, IACT). FPU Fellowship.
- 2023 – "The role of subduction zone serpentinite dehydration in the deep sulphur cycle". Ph.D. candidate: M.Sc. Luis Samuel CRISTÓBAL DÍAZ. Doctoral thesis in the Earth Sciences Ph.D. program at the University of Granada, starting: 01/09/2023. Thesis Directors: Dr. Carlos J. Garrido (CSIC, IACT) and José Alberto Padrón-Navarta (CSIC, IACT). FPU Fellowship.
- 2024 – "Unraveling Carbonation and Sulfur Mobility in the Forearc Mantle – Slab Interface". Ph.D. candidate: M.Sc. Israel David GARDUÑO TORRES. Doctoral thesis in the Earth Sciences Ph.D. program at the University of Granada, starting: 01/03/2024. Thesis Directors: Dr. José Alberto Padrón-Navarta (CSIC, IACT) and Dr. Manuel Menzel (CSIC, IACT). FPI Fellowship.
- 2015 – 2018 PhD main supervisor of Maxime CLEMENT: "Fluid transfer in subduction zones" – French Ministry of Education and Research funding –co-supervised by A. Tommasi, Géosciences Montpellier. <http://www.theses.fr/2018MONTG066>

*Clément, M., Padrón-Navarta, J. A. & Tommasi, A. (2019). Interplay between Fluid Extraction Mechanisms and Antigorite Dehydration Reactions (Val Malenco, Italian Alps). *Journal of Petrology* **60**, 1935–1962.

*Clement, M. Padrón-Navarta, J. A., Tommasi, A. D. Mainprice (2018). Non-hydrostatic stress field orientation inferred from orthopyroxene (Pbc) to low-clinoenstatite (P21/c) inversion in partially dehydrated serpentinites. *American Mineralogist* **103**, 993–1001.

Postdoctoral Researchers Management

- 2022 – 2024 Postdoctoral Researcher: Dr. Michał Bułak (POLAND). Project: Juan de la Cierva - Training Researcher. Supervisor: Dr. José Alberto Padrón-Navarta (CSIC, IACT). Fluid-rock interaction in the mantle wedge, microstructure and redox exchanges.

Advisor/mentoring of PhD students

- 2021 Mentoring of 1 visiting PhD student from the University of Milan (Italy), Ms. Sara Sibill Giuseppina Guerini on phase relations and thermodynamic modelling of CO₂ metasomatism.

- 2012 – 2018 Advisor of three PhD students from the RSES (ANU):

- Mr Mike Jollands 2012-2015 (experimental diffusion in olivine, now as postdoc at the Lamont-Doherty Earth observatory in New York)

* Jollands, M. C., Padron-Navarta, J. A., Hermann, J. & O'Neill, H. S. C. (2016). Hydrogen diffusion in Ti-doped forsterite and the preservation of metastable point defects. *American Mineralogist* **101**, 1571–1583.

* Jollands, M. C., Hermann, J., St. O'Neill, H. C., Spandler, C. & Padrón-Navarta, J. A. (2016). Diffusion of Ti and some divalent cations in olivine as a function of temperature, oxygen fugacity, chemical potentials and crystal orientation. *Journal of Petrology* **57**, 1983–2010.

- Mr Shayne Lakey (experimental investigation of the chlorite breakdown at high-pressure conditions and thermodynamic modelling, 2013-2018).

- Ms Maria Rosa Scicchitano (oxygen isotopes, fluid-rock interaction and oxygen diffusion in garnet, 2013-2018, now postdoc at GeoForschungsZentrum GFZ, Potsdam)

* Scicchitano, M. R., Rubatto, D., Hermann, J., Shen, T., Padrón-Navarta, J. A., Williams, I. S. & Zheng, Y. F. (2018). In Situ Oxygen Isotope Determination in Serpentine Minerals by Ion Microprobe: Reference Materials and Applications to Ultrahigh-Pressure Serpentinites. *Geostandards and Geoanalytical Research* **42**, 459–479.

2014 – 2015 Mentoring of 1 visiting PhD student from University of Zaragoza (Spain), Ms V. Colás on thermodynamic modelling of spinels, now as research associated at the National University of Mexico.

*Colás V, Padrón-Navarta JA, González-Jiménez JM, Griffin WL, Fanlo I, O'reilly SY, Gervilla F, Proenza JA, Pearson NJ, Escayola MP (2016) Compositional effects on the solubility of minor and trace elements in oxide spinel minerals: Insights from crystal- crystal partition coefficients in chromite exsolution. *American Mineralogist* **101**(6):1360-1372

*Colás, V., Padrón-Navarta, J. A., González-Jiménez, J. M., Fanlo, I., López Sánchez-Vizcaíno, V., Gervilla, F. & Castroviejo, R. (2017). The role of silica in the hydrous metamorphism of chromite. *Ore Geology Reviews* **90**, 274–286.

2011 – 2012 Advisor of Ms Tingting Shen during her 12 months stay at RSES, ANU (PhD candidate from Peking University, Beijing, China, now with a permanent position at the Chinese Academy of Geological Sciences) working on ultrahigh pressure hydrated peridotites from Tianshan orogenic belt, China.

* Shen, T. T. *et al.* (2015). UHP Metamorphism Documented in Ti-chondrodite- and Ti-clinohumite-bearing Serpentinized Ultramafic Rocks from Chinese Southwestern Tianshan. *Journal of Petrology* **56**, 1425–1458.

* Shen, T., Hermann, J., Zhang, L., Padrón-Navarta, J. A. & Chen, J. (2014). FTIR spectroscopy of Ti-chondrodite, Ti-clinohumite, and olivine in deeply subducted serpentinites and implications for the deep water cycle. *Contributions to Mineralogy and Petrology* **167**, 1–15.

Master students

2023 "Raman Spectroscopy Measurements of High-Pressure Hydrated Silicates from the Betic Cordilleras (minerals of the humite group)" by Manuel Ángel Álvarez Angulo. External academic practices for the Master's in Geology Applied to Mineral and Energy Resources (University of Granada).

2022 Research Training course, Juan Ricardo Bustos (Master student at the University of Granada). Raman spectroscopy of serpentine minerals.

2021 CSIC internship program (María del Carmen Romero Toribio – FTIR analyses of mantle xenolith from El Hierro island. 5 months.

2017 Supervision of one Master 2 student from an Erasmus+ research Stay (University of Pavia, Italy). Stefania Corvò: Hydrogen solubility in minerals from the Finero Complex (now PhD student at the University of Pavia, Italy).

2015 Main supervisor of one Master 1 student (Géosciences Montpellier): Mr. Thomas Leydier (now as postdoc at the University of Montpellier, France). "Hydrogen concentration and microstructure of Alpe Arami garnet peridotite (Leptontine Alps)".

2015 Leonardo Garrido. Graduate visiting student from University of Chile, on thermodynamic modelling Géosciences Montpellier (France).

2012 – 2013 Mentoring of two international internship master students in the Experimental Petrology group of the Research School of Earth Sciences, Australian National University (Australia): (1) Ms. Celine Creppisson at RSES, ANU (ENS Paris, France, Hydrogen decoration of Yttrium diffusion profiles in olivine, 2013) and (2) Ms. Frauke Patersen at RSES, ANU (Bochum University, Germany pressure dependence on water solubility in Ti-doped forsterite, 2012).

ist of peer-reviewed publications

Author of more than 60 articles in international peer-reviewed journals.

2500 citations, h=29 (Scopus, 09/02/2024)

<http://www.scopus.com/inward/authorDetails.url?authorID=24279069200&partnerID=MN8TOARS>

3104 citations, h=33 (Google Scholar, 09/02/2024)

<https://scholar.google.fr/citations?user=5x5JgplAAAAJ&hl=en>

Submitted

66. Shen T., Padrón-Navarta J.A., Bader B., Lin C.; Qiu T., Yang J., Geochemical study of UHP serpentinites in southwestern Tianshan, China and its implications. Submitted to *Lithos* (Jan 2024).
65. Chardelin M.*, Tommasi, A. Padrón-Navarta JA. Progressive strain localization and fluid focusing in mantle shear zones during rifting: petrostructural constrains from the Zabargad peridotites, Red Sea. Submitted to *Journal of Petrology* (Jan 2024).

Published

marked with * are PhD (or former PhD) or master student publications in which I was directly involved as a mentor or advisor.

64. Liptai, N., Lange, T.P., Patkó, L., Aradi, L.E., Berkesi, M., Tollan, P.M.E., Padrón-Navarta J.A., Hermann, J., Gergely, S., Szabó, C., Kovács, I.J., 2023. Formation of amphibole lamellae in mantle pyroxene by fluid-mediated metasomatism: A focal plane array FTIR study from the Carpathian-Pannonian region. *Am. Mineral.* 109, 87–102. <https://doi.org/10.2138/am-2022-8662>
63. Xiong, J.W., Chen, Y.X., Shen, J., Marchesi, C., Scambelluri, M., Qin, L.P., López Sánchez-Vizcaíno, V., Padrón-Navarta J.A., Menzel, M.D., Garrido, C.J., Xiong, A.L., 2016. Chromium Isotope Behavior During Serpentine Dehydration in Oceanic Subduction Zones. *J. Geophys. Res. Solid Earth* 128, e2023JB026601. <https://doi.org/10.1029/2023JB026601>
62. Jollands M.C., Dohmen R., Padrón-Navarta J.A. Hide and Seek – Trace Element Incorporation and Diffusion in Olivine (2023) *Elements*, 19 (3), pp. 144 - 150, <https://doi.org/10.2138/gselements.19.3.144>
61. Padrón-Navarta J.A., López Sánchez-Vizcaíno, V., Menzel, M.D., Gómez-Pugnaire, M.T., Garrido, C.J., 2023. Mantle wedge oxidation from deserpentinization modulated by sediment-derived fluids. *Nature Geosciences* 16, 268–275. <https://doi.org/10.1038/s41561-023-01127-0>
60. Jabaloy-Sánchez, A., Sánchez-Vizcaíno, V.L., Padrón-Navarta J.A., Hidas, K., Gómez-Pugnaire, M.T., Garrido, C.J., 2022. Olivine-rich veins in high-pressure serpentinites: A far-field paleo-stress snapshot during subduction. *J. Struct. Geol.* 163, 104721. <https://doi.org/10.1016/j.jsg.2022.104721>
59. Jollands, M.C., Muir, J., Padrón-Navarta J.A., Demouchy, S., 2022. Modelling hydrogen mobility in forsterite as diffusion coupled to inter-site reaction. *Contributions to Mineralogy and Petrology* 2022 17710 177, 1–26. <https://doi.org/10.1007/S00410-022-01954-1>
58. Daneu, N., Dražič, G., Mazaj, M., Barou, F., Padrón-Navarta, J. A. & IUCr (2022). Formation of contact and multiple cyclic cassiterite twins in SnO₂-based ceramics co-doped with cobalt and niobium oxides. *Acta Crystallographica Section B Structural Science, Crystal Engineering and Materials*. International Union of Crystallography 78, 695–709.
57. Spránitz, T.*, Padrón-Navarta J.A., Szabó, C., Szabó, Á., Berkesi, M., 2022. Abiotic passive nitrogen and methane enrichment during exhumation of subducted rocks: Primary multiphase fluid inclusions in high-pressure rocks from the Cabo Ortegal Complex, NW Spain. *J. Metamorph. Geol.* 40, 1291–1319. <https://doi.org/10.1111/jmg.12666>
56. Cerpa, N. G., Arcay, D. & Padrón-Navarta J.A. (2022). Sea-level stability over geological time owing to limited deep subduction of hydrated mantle. *Nature Geoscience* 15, 423–428.
55. González-Jiménez, J. M., Piña, R., Saunders, J. E., Plissart, G., Marchesi, C., Padrón-Navarta, J. A., Ramón-Fernández, M., Garrido, L. N. F. & Gervilla, F. (2021). Trace element fingerprints of Ni–Fe–S–As minerals in subduction channel serpentinites. *Lithos.* 400–401, 106432.

54. Padrón-Navarta, J. A., Barou, F. & Daneu, N. (2020). Twinning in SnO₂-based ceramics doped with CoO- and Nb₂O₅: morphology of multiple twins revealed by electron backscatter diffraction. *Acta Crystallographica Section B Structural Science, Crystal Engineering and Materials*. International Union of Crystallography (IUCr) **76**, 875–883.
53. Laborda-López, C., Marchesi, C., López Sánchez-Vizcaíno, V., Gómez-Pugnaire, M. T., Dale, C. W., Jabaloy-Sánchez, A., Padrón-Navarta, J. A., Román-Alpiste, M. J. & Garrido, C. J. (2020). Geochemical evolution of rodingites during subduction: insights from Cerro del Almiraz (southern Spain). *Lithos* **370–371**, 105639.
52. Shen, T., Zhang, C., Chen, J., Hermann, J., Zhang, L., Padrón-Navarta, J. A., Chen, L., Xu, J. & Yang, J. (2020). Changes in the cell parameters of antigorite close to its dehydration reaction at subduction zone conditions. *American Mineralogist* **105**, 569–582.
51. Corvò, S., Langone, A., Padrón-Navarta, J. A., Tommasi, A. & Zanetti, A. (2020). Porphyroclasts: Source and Sink of Major and Trace Elements During Deformation-Induced Metasomatism (Finero, Ivrea-Verbano Zone, Italy). *Geosciences*. **10**, 196.
50. *Clément, M., Padrón-Navarta, J. A. & Tommasi, A. (2019). Interplay between Fluid Extraction Mechanisms and Antigorite Dehydration Reactions (Val Malenco, Italian Alps). *Journal of Petrology* **60**, 1935–1962.
49. Plissart, G., González-Jiménez, J. M., Garrido, L. N. F., Colás, V., Berger, J., Monnier, C., Diot, H. & Padrón-Navarta, J. A. (2019). Tectono-metamorphic evolution of subduction channel serpentinites from South-Central Chile. *Lithos*. Elsevier B.V. **336–337**, 221–241
48. * Maurice, J., Bolfan-Casanova, N., Padrón-Navarta, J. A., Manthilake, G., Hammouda, T., Hénot, J. M. & Andraut, D. (2018). The stability of hydrous phases beyond antigorite breakdown for a magnetite-bearing natural serpentinite between 6.5 and 11 GPa. *Contributions to Mineralogy and Petrology* **173**.
47. * Scicchitano, M. R., Rubatto, D., Hermann, J., Shen, T., Padrón-Navarta, J. A., Williams, I. S. & Zheng, Y. F. (2018). In Situ Oxygen Isotope Determination in Serpentine Minerals by Ion Microprobe: Reference Materials and Applications to Ultrahigh-Pressure Serpentinites. *Geostandards and Geoanalytical Research* **42**, 459–479.
46. Thoraval, C., Demouchy, S. & Padrón-Navarta, J. A. (2018). Relative diffusivities of hydrous defects from a partially dehydrated natural olivine. *Physics and Chemistry of Minerals* **46**.
45. Laborda-López, C., López-Sánchez-Vizcaíno, V., Marchesi, C., Gómez-Pugnaire, M. T., Garrido, C. J., Jabaloy-Sánchez, A., Padrón-Navarta, J. A. & Hidas, K. (2018). High-P metamorphism of rodingites during serpentinite dehydration (Cerro del Almiraz, Southern Spain): Implications for the redox state in subduction zones. *Journal of Metamorphic Geology* **36**, 1141–1173.
44. Dilissen, N., Hidas, K., Garrido, C. J., Kahl, W.-A. A., López Sánchez-Vizcaíno, V. & Padrón-Navarta, J. A. (2018). Textural evolution during high-pressure dehydration of serpentinite to peridotite and its relation to stress orientations and kinematics of subducting slabs: Insights from the Almiraz ultramafic massif. *Lithos*. Elsevier B.V. **320–321**, 470–489.
43. Kendrick, M. A., Scambelluri, M., Hermann, J. & Padrón-Navarta, J. A. (2018). Halogens and noble gases in serpentinites and secondary peridotites: Implications for seawater subduction and the origin of mantle neon. *Geochimica et Cosmochimica Acta* **235**, 285–304.
42. *Clement, M. Padrón-Navarta, J. A., Tommasi, A. D. Mainprice (2018). Non-hydrostatic stress field orientation inferred from orthopyroxene (Pbc_a) to low-clinoenstatite (P2₁/c) inversion in partially dehydrated serpentinites. *American Mineralogist* **103**, 993–1001.
41. Urosevic, M., Nebel, O., Padrón-Navarta, J. A. & Rubatto, D. (2018). Assessment of O and Fe isotope heterogeneity in Garnet from Kakanui (New Zealand) and Erongo (Namibia). *European Journal of Mineralogy* **30**, 695–710.
40. Padrón-Navarta, J.A., Hermann, J., 2017. A Subsolvus Olivine Water Solubility Equation for the Earth's Upper Mantle. *Journal of Geophysical Research: Solid Earth* **122**, 9862-9880.
39. Tommasi, A., Langone, A., Padrón-Navarta, J.A., Zanetti, A., Vauchez, A., 2017. Hydrous melts weaken the mantle, crystallization of pargasite and phlogopite does not: Insights from a petrostructural study of the Finero peridotites, southern Alps. *Earth Planet. Sci. Lett.* **477**, 59-72.

38. González-Jiménez, J. M. *et al.* (2017). Titanian clinohumite and chondrodite in antigorite serpentinites from Central Chile: evidence for deep and cold subduction. *European Journal of Mineralogy* **29**, 959–970.
37. Langone, A., Padrón-Navarta J.A., Ji, W.-Q., Zanetti, A., Mazzucchelli, M., Tiepolo, M., Giovanardi, T., Bonazzi, M., 2017. Ductile–brittle deformation effects on crystal-chemistry and U–Pb ages of magmatic and metasomatic zircons from a dyke of the Finero Mafic Complex (Ivrea–Verbano Zone, Italian Alps). *Lithos* **284–285**, 493–511.
36. *Colás, V., Padrón-Navarta, J.A., González-Jiménez, J.M., Fanlo, I., Sánchez-Vizcaíno, V.L., Gervilla, F., Castroviejo, R., The role of silica in the hydrous metamorphism of chromite. *Ore Geol. Rev.* **90**, 274–286.
35. *Jollands MC, Hermann J, O'Neill HSC, Spandler C, Padrón-Navarta JA (2016) Diffusion of Ti and some Divalent Cations in Olivine as a Function of Temperature, Oxygen Fugacity, Chemical Potentials and Crystal Orientation. *J Petrol* **57** (10):1983–2010.
34. Hidas, K., Konc, Z., Garrido, C. J., Tommasi, A., Vauchez, A., Padrón-Navarta, J. A., Marchesi, C., Booth-Rea, G., Acosta-Vigil, A., Szabó, C., Varas-Reus, M. I. & Gervilla, F. (2016). Flow in the western Mediterranean shallow mantle: Insights from xenoliths in Pliocene alkali basalts from SE Iberia (eastern Betics, Spain). *Tectonics* **35**, 2657–2676.
33. Hidas, K., Tommasi, A., Garrido, C.J., Padrón-Navarta, J.A., Mainprice, D., Vauchez, A., Barou, F., Marchesi, C., 2016. Fluid-assisted strain localization in the shallow subcontinental lithospheric mantle. *Lithos* **262**, 636–650.
32. *Jollands, M.C., Padrón-Navarta, J.A., Hermann, J., O'Neill, H.S.C., 2016. Hydrogen diffusion in Ti-doped forsterite and the preservation of metastable point defects. *American Mineralogist* **101**, 1571–1583.
31. *Colás, V., Padrón-Navarta, J.A., González-Jiménez, J.M., Griffin, W.L., Fanlo, I., O'reilly, S.Y., Gervilla, F., Proenza, J.A., Pearson, N.J., Escayola, M.P., 2016. Compositional effects on the solubility of minor and trace elements in oxide spinel minerals: Insights from crystal-crystal partition coefficients in chromite exsolution. *American Mineralogist* **101**, 1360–1372.
30. *Shen, T., Hermann, J., Zhang, L., Lü, Z., Padrón-Navarta, J.A., Xia, B. & Bader, T. (2015). UHP Metamorphism Documented in Ti-chondrodite- and Ti-clinohumite-bearing Serpentinized Ultramafic Rocks from Chinese Southwestern Tianshan. *Journal of Petrology* **56**, 1425–1458.
29. Turner M, Ireland T, Hermann J, Holden P, Padrón-Navarta JA, Hauri EH, Turner S (2015) Sensitive high resolution ion microprobe - stable isotope (SHRIMP-SI) analysis of water in silicate glasses and nominally anhydrous reference minerals. *Journal of Analytical Atomic Spectrometry* **30**(8):1706–1722
28. Padrón-Navarta JA, Tommasi A, Garrido CJ, Mainprice D. (2015) On topotaxy and compaction during antigorite and chlorite dehydration: an experimental and natural study. *Contributions to Mineralogy and Petrology* **169**(4):1–20
27. *Debret N, Bolfan-Casanova N, Padrón-Navarta JA, Martín-Hernández F, Andreani M, Garrido CJ, López-Sánchez Vizcaíno V, Gómez-Pugnaire MT, Muñoz M, Trcera N. (2015). Redox state of iron during high pressure serpentinite dehydration *Contributions to Mineralogy and Petrology* **169**(4):1–18.
26. Hidas, K., Varas-Reus, M. I., Garrido, C. J., Marchesi, C., Acosta-Vigil, A., Padrón-Navarta, J. A., Targuisti, K. & Konc, Z. (2015). Hyperextension of continental to oceanic-like lithosphere: The record of late gabbros in the shallow subcontinental lithospheric mantle of the westernmost Mediterranean. *Tectonophysics* **650**, 65–79.
25. Jabaloy A, Gómez-Pugnaire MT, Padrón-Navarta JA, López Sánchez-Vizcaíno V, Garrido CJ (2015) Subduction- and exhumation-related structures preserved in metaserpentinites and associated metasediments from the Nevado–Filábride Complex (Betic Cordillera, SE Spain) *Tectonophysics* **644–645**, 40–57.
24. Padrón-Navarta JA, Hermann J, O'Neill HSC (2014) Site-specific hydrogen diffusion rates in forsterite. *Earth and Planetary Science Letters* **392**(0):100–112
23. Koga K, Garrido C, Padrón-Navarta JA, Sanchez-Vizcaino V, Gomez-Pugnaire M (2014) FTIR and Raman spectroscopy characterization of fluorine-bearing titanian clinohumite in antigorite serpentinite and chlorite harzburgite. *Earth, Planets and Space* **66**(1):60

22. *Shen T, Hermann J, Zhang L, Padrón-Navarta JA, Chen J (2014) FTIR spectroscopy of Ti-chondrodite, Ti-clinohumite, and olivine in deeply subducted serpentinites and implications for the deep water cycle. *Contributions to Mineralogy and Petrology* **167**(4):1-15
21. Harvey J, Garrido CJ, Savov I, Agostini S, Padrón-Navarta JA, Marchesi C, López Sánchez-Vizcaíno V, Gómez-Pugnaire MT (2014) 11B-rich fluids in subduction zones: The role of antigorite dehydration in subducting slabs and boron isotope heterogeneity in the mantle. *Chemical Geology* **376**(0):20-30
20. Barra F, Gervilla F, Hernández E, Reich M, Padrón-Navarta JA, González-Jiménez J (2014) Alteration patterns of chromian spinels from La Cabaña peridotite, south-central Chile. *Miner Petrol*:1-18
19. Padrón-Navarta, J.A., López Sánchez-Vizcaíno, V., Hermann, J., Connolly, J.A.D., Garrido, C.J., Gómez-Pugnaire, M.T. and Marchesi, C., 2013, Tschermak's substitution in antigorite and consequences for phase relations and water liberation in high-grade serpentinites. *Lithos* **15**, 186–196.
18. Marchesi, C., Garrido, C.J., Padrón-Navarta, J.A., López Sánchez-Vizcaíno, V. and Gómez-Pugnaire, M.T., 2013, Element mobility from seafloor serpentinization to high-pressure dehydration of antigorite in subducted serpentinite: Insights from the Cerro del Almirez ultramafic massif (southern Spain). *Lithos*. **15**, 128–142.
17. Alt, J.C., Schwarzenbach, E.M., Fruh-Green, G.L., Shanks Iii, W.C., Bernasconi, S.M., Garrido, C.J., Crispini, L., Gaggero, L., Padrón-Navarta, J.A. and Marchesi, C., 2013, The role of serpentinites in cycling of carbon and sulfur: Seafloor serpentinization and subduction metamorphism. *Lithos*. **15**, 40–54.
16. Hidas, K., Garrido, C.J., Tommasi, A., Padrón-Navarta, J.A., Thielmann, M., Konc, Z., Frets, E. and Marchesi, C., 2013, Strain Localization in Pyroxenite by Reaction-Enhanced Softening in the Shallow Subcontinental Lithospheric Mantle. *Journal of Petrology*, **54**, 1997-2031.
15. Hidas K., Booth-Rea G., Garrido CJ, Martínez-Martínez JM., Padrón-Navarta JA, Konc Z, Giaconia F., Frets E., Marchesi C. Backarc basin inversion and subcontinental mantle emplacement in the crust: Kilometer-scale folding and shearing at the base of the proto-Alborán lithospheric mantle (Betic Cordillera, South Spain) (2012) *Journal of the Geological Society*, **170**: 47-55.
14. Padrón-Navarta, J.A., Tommasi, A., Garrido, C.J., López Sánchez-Vizcaíno, V. Plastic deformation and development of antigorite crystal preferred orientation in high-pressure serpentinites (2012) *Earth and Planetary Science Letters*, **349-350**, pp. 75-86.
13. Gervilla, F., Padrón-Navarta, J.A., Kerestedjian, T., Sergeeva, I., González-Jiménez, J.M., Fanlo, I. Formation of ferrian chromite in podiform chromitites from the Golyamo Kamenyane serpentinite, Eastern Rhodopes, SE Bulgaria: A two-stage process (2012) *Contributions to Mineralogy and Petrology*, **164** (4), pp. 643-657.
12. Gómez-Pugnaire, M.T., Rubatto, D., Fernández-Soler, J.M., Jabaloy, A., López Sánchez-Vizcaíno, V., González-Lodeiro, F., Galindo-Zaldívar, J., Padrón-Navarta, J.A. Late Variscan magmatism in the Nevado-Filábride Complex: U-Pb geochronologic evidence for the pre-Mesozoic nature of the deepest Betic complex (SE Spain) (2012) *Lithos*, **146-147**, pp. 93-111.
11. Frets, E., Tommasi, A., Garrido, C.J., Padrón-Navarta, J.A., Amri, I., Targuisti, K. Deformation processes and rheology of pyroxenites under lithospheric mantle conditions (2012) *Journal of Structural Geology*, **39**, pp. 138-157.
10. Alt, J.C., Garrido, C.J., Shanks, W.C., Turchyn, A., Padrón-Navarta, J.A., López Sánchez-Vizcaíno, V., Gómez Pugnaire, M.T., Marchesi, C. Recycling of water, carbon, and sulfur during subduction of serpentinites: A stable isotope study of Cerro del Almirez, Spain (2012) *Earth and Planetary Science Letters*, **327-328**, pp. 50-60.
9. Marchesi, C., Garrido, C.J., Bosch, D., Bodinier, J.-L., Hidas, K., Padrón-Navarta, J.A., Gervilla, F. A late oligocene suprasubduction setting in the westernmost mediterranean revealed by intrusive pyroxenite dikes in the Ronda peridotite (Southern Spain) (2012) *Journal of Geology*, **120** (2), pp. 237-247.
8. Garrido, C.J., Gueydan, F., Booth-Rea, G., Precigout, J., Hidas, K., Padrón-Navarta, J.A., Marchesi, C. Garnet lherzolite and garnet-spinel mylonite in the Ronda peridotite: Vestiges of Oligocene backarc mantle lithospheric extension in the western Mediterranean (2011) *Geology*, **39** (10), pp. 927-930.

7. Padrón-Navarta, J.A., Sánchez-Vizcaíno, V.L., Garrido, C.J., Gómez-Pugnaire, M.T. Metamorphic record of high-pressure dehydration of antigorite serpentinite to chlorite harzburgite in a subduction setting (Cerro del Almirez, Nevado-Filábride complex, Southern Spain) (2011) *Journal of Petrology*, **52** (10), pp. 2047-2078.
6. Bosch, D., Garrido, C.J., Bruguier, O., Dhuime, B., Bodinier, J.-L., Padrón-Navarta, J.A., Galland, B. Building an island-arc crustal section: Time constraints from a LA-ICP-MS zircon study (2011) *Earth and Planetary Science Letters*, **309** (3-4), pp. 268-279.
5. Padrón-Navarta, J.A., Tommasi, A., Garrido, C.J., Sánchez-Vizcaíno, V.L., Gómez-Pugnaire, M.T., Jabaloy, A., Vauchez, A. Fluid transfer into the wedge controlled by high-pressure hydrofracturing in the cold top-slab mantle (2010) *Earth and Planetary Science Letters*, **297** (1-2), pp. 271-286.
4. Padrón-Navarta, J.A., Hermann, J., Garrido, C.J., López Sánchez-Vizcaíno, V., Gómez-Pugnaire, M.T. An experimental investigation of antigorite dehydration in natural silica-enriched serpentinite (2010) *Contributions to Mineralogy and Petrology*, **159** (1), pp. 25-42.
3. López Sánchez-Vizcaíno, V., Gómez-Pugnaire, M.T., Garrido, C.J., Padrón-Navarta, J.A., Mellini, M. Breakdown mechanisms of titanclinochumite in antigorite serpentinite (Cerro del Almirez massif, S. Spain): A petrological and TEM study (2009) *Lithos*, **107** (3-4), pp. 216-226.
2. Padrón-Navarta, J.A., Garrido, C.J., Sánchez-Navas, A., Tommasi, A., Sánchez-Vizcaíno, V.L., Gómez-Pugnaire, M.T., Hussain, S.S. Oriented growth of garnet by topotactic reactions and epitaxy in high-pressure, mafic garnet granulite formed by dehydration melting of metastable hornblende-gabbro-norite (Jijal Complex, Kohistan Complex, north Pakistan) (2008) *Journal of Metamorphic Geology*, **26** (8), pp. 855-870.
1. Padrón-Navarta, J.A., López Sánchez-Vizcaíno, V., Garrido, C.J., Gómez-Pugnaire, M.T., Jabaloy, A., Capitani, G.C., Mellini, M. Highly ordered antigorite from Cerro del Almirez HP-HT serpentinites, SE Spain (2008) *Contributions to Mineralogy and Petrology*, **156** (5), pp. 679-688.

Book chapters

1. Jabaloy Sánchez, A., Martín-Algarra, A., Padrón-Navarta, J. A., Martín-Martín, M., Gómez-Pugnaire, M. T., López Sánchez-Vizcaíno, V. & Garrido, C. J. (2019). Lithological Successions of the Internal Zones and Flysch Trough Units of the Betic Chain. In: Quesada, C. & Oliveira, J. T. (eds) *The Geology of Iberia: A Geodynamic Approach: Volume 3: The Alpine Cycle*. Cham: Springer International Publishing, 377–432.
2. Jabaloy Sánchez, A., Padrón-Navarta, J. A., Gómez-Pugnaire, M. T., López Sánchez-Vizcaíno, V. & Garrido, C. J. (2019). Alpine Orogeny: Deformation and Structure in the Southern Iberian Margin (Betics s.l.). In: Quesada, C. & Oliveira, J. T. (eds) *The Geology of Iberia: A Geodynamic Approach: Volume 3: The Alpine Cycle*. Cham: Springer International Publishing, 453–486.
3. Hidas K. and Padrón-Navarta J.A. (**invited book chapter, in press**) The role of H₂O in the deformation and microstructural evolution of the upper mantle. European Mineralogical Union Notes, Chemical geodynamics of the Earth's mantle; new paradigms Guest Editors: Costanza Bonadiman (University of Ferrara, Italy) Elisabetta Rampone (University of Genoa, Italy).

List of contributions to conferences

I have attended 24 international (EGU: 2008, 2010, 2011, 2014, 2016, 2017, 2018, 2020, 2021; Goldschmidt: 2009, 2010, 2011, 2013, 2019, 2021, 2022, 2023; International Geological Congress: 2012, AGU: 2013, 2014, 2017; EMPG-XVI 2018; TiGeR 2018; IMA 2022 Lyon) and 5 national conferences (Spain: 2006, 2008, 2011; Germany, 2010; Australia: 2011). Over 130 communications to national and international meetings (more than 30 as first author and more than 27 of them as oral presentation), **6 invited talks in international meetings** (2 American Geoscience Union, 1 European Geosciences Union, 1 Goldschmidt, 1 International Geological Conference and 1 TiGeR Conference).

2024

1. Bukala M, Padrón-Navarta JA, Menzel MD, López Sánchez-Vizcaíno V. and Garrido CJ. The microstructural record of high-pressure modulated deserpentinisation. 36th Nordic Geological Winter meeting 10-12 January 2024 (Gothenburg, Sweden).
2. Kerswell B, Cerpa N, Tommasi A, Godard M., and Padrón-Navarta J.A.. RocMLMs: Predicting Rock Properties through Machine Learning Models. Geophysical Research Abstracts Vol. XXII, EGU General Assembly 2024. EGU24-8578 EGU General Assembly 2024 (Vienna, Austria)
3. Menzel MD, Eberhard L, Padrón-Navarta JA, van Melick H, and Plümper O. Heterogeneous fluid release in subduction zones – evidence from experimental dehydration of brucite vein networks in serpentinite. EGU24-17686 EGU General Assembly 2024 (Vienna, Austria).
4. Ramón-Fernández M., Padrón-Navarta J.A., Boudier F., and Garrido C.J. Hydrogen in orthopyroxene records oxidation during hydration of the cold mantle wedge. EGU24-17103 EGU General Assembly 2024 (Vienna, Austria).
5. Bukala M, Padrón-Navarta JA, Menzel MD, Hidas K, López Sánchez-Vizcaíno V. and Garrido CJ. The effect of modulated deserpentinization on the deep carbon cycle. EGU24-12237 EGU General Assembly 2024 (Vienna, Austria).

2023

6. Padrón-Navarta J.A., López Sánchez-Vizcaíno, V., Menzel, M.D., Gómez-Pugnaire, M.T., Garrido, C.J., Modulated redox capacity of serpentinite-derived fluids. Goldschmidt 2023 (9-14 July, Lyon, France).
7. Liptai, N., Lange, T.P., Patkó, L., Aradi, L.E., Berkesi, M., Tollan, P.M.E., Padrón-Navarta J.A., Hermann, J., Gergely, S., Szabó, C., Kovács, I.J., Focal plane array FTIR imaging as a semi- quantitative tool to reveal the metasomatic origin of amphibole lamellae in pyroxenes of upper mantle xenoliths. Goldschmidt 2023 (9-14 July, Lyon, France).
8. Menzel M.D. Hidas, K. Padrón-Navarta J.A. The interplay of deformation and devolatilization – texture evolution during subduction of meta-ophicarbonates. EGU23-12331, EGU General Assembly 2023.
9. Daneu, Habler G., Padrón-Navarta JA STEM analysis of (100) and (111) sectors in a natural loparite(-Ce) crystal. 20th International Microscopy Congress (IMC20). 10-15 September, Busan Korea.

2022

10. Chardelin M., Tommas A.i, Padrón-Navarta J.A., Boudier F., Zaderatzky M. Progressive strain localization in an extensional mantle shear zone (Zabargad, Red Sea). Earth Mantle Workshop (EMAW). 12-15 septiembre 2022.
11. Padrón-Navarta, J.A., López Sánchez-Vizcaíno, V., Manuel D. Menzel, María Teresa Gómez-Pugnaire, Garrido, C.J. The redox capacity of serpentinite-derived fluids modified by external fluid-influx. 23th General Meeting of the International Mineralogical Association (Lyon, 2022).
12. López Sánchez-Vizcaíno, V., Padrón-Navarta, J.A., Laborda-López, C., Gómez-Pugnaire, M.T., Menzel, M.D., Garrido, C.J.. Carbonation and decarbonation of serpentinites during subduction and tectonic exhumation. 23th General Meeting of the International Mineralogical Association (Lyon, 2022).

13. Padrón-Navarta, J.A., López Sánchez-Vizcaíno, V., Manuel D. Menzel, María Teresa Gómez-Pugnaire, Garrido, C.J. Mantle wedge oxidation due to sediment-infiltrated deserpentinisation. Goldschmidt 2022 (10-15 July, Hawaii).
14. Spránitz T., Padrón-Navarta J.A., Szabó CS., Gilio M., Alvaro M., Szabó Á., Berkesi M.. Evolution of fluids from a subduction zone: unraveling P-T and compositional evolution path based on complex inclusion study. Goldschmidt 2022 (10-15 July, Hawaii).
15. Liptai N., Lange T.P, Patkó L., Aradi L.E., Berkesi M., Tollan P., Padrón-Navarta J.A., Hermann J., Szabó C., Kovács I.. Infrared spectroscopy of amphibole lamellae in pyroxenes from mantle xenoliths of the Carpathian-Pannonian region. Goldschmidt 2022 (10-15 July, Hawaii).
16. Padrón-Navarta, J.A., A. Jabaloy-Sánchez, López Sánchez-Vizcaíno, V., Gómez-Pugnaire, M.T., K. Hidas, Garrido, C.J. On the potential role of reactive flow precipitation due to fluid-pressure gradients for the genesis of olivine veins in subducted metaserpentinite. Geophysical Research Abstracts Vol. XXII, EGU General Assembly 2022.
17. Arcay D., Cerpa N., Padrón-Navarta JA. Reconciling extensive mantle hydration at subduction trenches and limited deep H₂O fluxes. Geophysical Research Abstracts Vol. XXII, EGU General Assembly 2022.
18. López Sánchez-Vizcaíno, V., Padrón-Navarta, J.A., Laborda-López, C., Gómez-Pugnaire, M.T., Menzel, M.D., Garrido, C.J.. Metaserpentinite carbonation and decarbonation reactions during subduction metamorphism and subsequent tectonic exhumation. Geophysical Research Abstracts Vol. XXII, EGU General Assembly 2022.

2021

19. N. Daneu (**invited**), J. A. Padrón-Navarta, F. Barou, G. Dražić, A. Rečnik. Twinning in minerals with the rutile-type structure: insights from TEM and EBSD. MC 2021 (Microscopy Conference 22-26 August 2021).
20. Hidas K. (**Keynote**) and Padrón-Navarta JA. Insight into the impact of melt/fluid percolation on the microstructural evolution of the lithospheric mantle. Book of Abstracts 3rd European Mineralogical Conference EMC 2020, Cracow, Poland.
21. Michael C. Jollands, Joshua Muir, José Alberto Padrón-Navarta, and Sylvie Demouchy, Geosciences Montpellier. Hydrogen mobility in forsterite re-evaluated in the framework of diffusion coupled to inter-site reaction. Goldschmidt 2021 (4-9 July, Lyon).
22. Nora Liptai, Thomas Pieter Lange, Levente Patko, László Előd Aradi, Marta Berkesi, Peter M Tollan, José Alberto Padrón-Navarta, Jörg Hermann, Csaba Szabó and István János Kovács. Infrared spectroscopy of amphibole lamellae in pyroxenes from mantle xenoliths of the Carpathian-Pannonian region. Goldschmidt 2021 (4-9 July, Lyon).
23. Fernando Gervilla, Jose Maria González-Jiménez, Rubén Piña, James Saunders, Gaelle Plissart, Claudio Marchesi and José Alberto Padrón-Navarta. Mineral-scale mobility of PGE and TABS in subducted serpentinites. Goldschmidt 2021 (4-9 July, Lyon).
24. Tamás Spránitz, José Alberto Padrón-Navarta, Csaba Szabó and Marta Berkesi. Nitrogen enrichment during exhumation: new insights from multiphase inclusions in subducted rocks (Cabo Ortegal Complex, NW-Spain)
25. Thermodynamic modelling of hydrogen in Nominally Anhydrous Minerals (NAMs): current strategies. Goldschmidt 2021 (4-9 July, Lyon).
26. Menzel, M.D., Garrido, C.J., Hidas, K., López Sánchez-Vizcaíno, V. and Padrón-Navarta, J.A. Deformation and texture evolution during devolatilization of meta-ophicarbonate in subduction zones. Metamorphic Studies Group (MSG) Research in Progress (RiP) 29-31 March 2021.
27. Cerpa N. G., Arcay, D. Padrón-Navarta, J.A. Limited subduction of water to mid-upper mantle depths predicted by the phase assemblages in hydrated peridotites with natural chemical composition at high-PT conditions. Geophysical Research Abstracts Vol. XXI, EGU General Assembly 2021.

2020

28. Cerpa N. G., Padrón-Navarta, J.A., Arcay, D. Accounting for the natural post-antigorite UHP hydrous phases in thermo-petrological models of subduction zones: implications for water retention into the deep upper mantle
29. Padrón-Navarta, J.A., Clément, M., Tommasi, A. Olivine dis-equilibrium growth in the Val Malenco contact aureole (Northern Italy), sparks before the fireworks? Geophysical Research Abstracts Vol. XX, EGU General Assembly 2020.
30. Cerpa N. G., Padrón-Navarta, J.A., Arcay, D. Uncertainties in the stability field of UHP hydrous phases (10-A phase and phase E) and deep-slab dehydration: potential implications for fluid migration and water fluxes at subduction zones. Geophysical Research Abstracts Vol. XX, EGU General Assembly 2020.

2019

31. Daneu N., Padrón-Navarta, J.A., Barou F., Dražić G., Tominc S., Rečnik A. EBSD and STEM analysis of cyclic twins in SnO₂ ceramics doped with CoO and Nb₂O₅. 14th Multinational Congress on Microscopy, September 15-20, 2019.
32. Padrón-Navarta, J.A. (invited). Phase Diagrams for Nominally Anhydrous Minerals. 18-23 August Goldschmidt Barcelona 2019.
33. Marchesi C, González-Jiménez JM, Padrón-Navarta, J.A., López Sánchez-Vizcaíno V & Gómez-Pugnaire MT. The Role of Dehydration of Subducted Serpentinites in the Genesis of Gold-Rich Magmatic-Hydrothermal Ore Deposits. 18-23 August Goldschmidt Barcelona 2019.

2018

34. Padrón-Navarta, J.A. Invited Speaker. TIGeR Conference 2018. Coupling between Metamorphism and Deformation. 12-14 September 2018 Curtin University, Perth, Western Australia
35. *Clément M., Padrón-Navarta, J.A., Demouchy S. Tommasi A., Oriented growth of metamorphic olivine under disequilibrium drained conditions. Sixteenth International Symposium on Experimental Mineralogy, Petrology and Geochemistry (EMPG-XVI), 17-21 September 2018, Clérmont-Ferrand, France.
36. Padrón-Navarta J.A. and Hermann J. Experimental determination of the hydrogen storage capacity of olivine in the subducting slab and the mantle wedge. Sixteenth International Symposium on Experimental Mineralogy, Petrology and Geochemistry (EMPG-XVI), 17-21 September 2018, Clérmont-Ferrand, France.
37. Hermann J., *Lakey S., Padrón-Navarta J.A. Water transport in subduction zone peridotites beyond the stability of chlorite. Sixteenth International Symposium on Experimental Mineralogy, Petrology and Geochemistry (EMPG-XVI), 17-21 September 2018, Clérmont-Ferrand, France.
38. Padrón-Navarta, J.A. Challenges and (thermodynamic) solutions in modeling hydrogen solubility in Nominally Anhydrous Minerals. European Geosciences Union General Assembly 2018, 8-13 April, 2018, Vienna, Austria, Geophysical Research Abstracts 20, EGU2018-18016.
39. Hermann J. Padrón-Navarta J.A., Kempf E., Lakey S., The sources and sinks of H₂O in subduction zones. European Geosciences Union General Assembly 2018, 8-13 April, 2018, Vienna, Austria, Geophysical Research Abstracts 20, EGU2018-6755.
40. Dilissen, N., Garrido, C.J., Lopez-Sanchez Vizcaino, V., Padrón-Navarta, J.A., Jabaloy-Sanchez, A., Gerya, T., Hidas, K. Episodic fluid release during high-pressure dehydration of Antigorite-serpentinite in subducting slabs. European Geosciences Union General Assembly 2018, 8-13 April, 2018, Vienna, Austria, Geophysical Research Abstracts 20, EGU2018-4478.
41. Laborda-López C., Marchesi C., López Sánchez-Vizcaíno V., Gómez-Pugnaire M.T., Garrido C.J., Jabaloy-Sánchez A., and Padrón-Navarta J.A. Fluid-assisted remobilization of major and trace elements in rodingites from their formation on the seafloor to high-pressure dehydration of enclosing serpentinites (Cerro del Almiraz, southern Spain). European Geosciences Union General Assembly 2018, 8-13 April, 2018, Vienna, Austria, Geophysical Research Abstracts 20, EGU2018-14242.

2017

42. Padrón-Navarta J.A. and Hermann J. Site-specific Subsolidus Olivine Water Solubility Equation for the Earth's Upper Mantle. AGU Fall Meeting 2017, 11-15 December, 2017, New Orleans, USA, V31E-04.
43. Zanetti A., Langone A., Tommasi A., Vauchez A., Padrón-Navarta J.A., Giovanardi T. and Mazzucchelli M. Is the mantle-crust transition in the finero complex (southern alps) a fossil continental moho? AGU Fall Meeting 2017, 11-15 December, 2017, New Orleans, USA V23D-0505.
44. *Shen T, Zhang L, Hermann J, Padrón-Navarta JA, Yang J & Zhang C, Element Redistribution and Seawater Imprint in UHP Serpentinites from Tianshan, China
45. Zanetti A., Langone A., Tommasi A., Vauchez A., Padrón-Navarta J.A., Giovanardi T., and Mazzucchelli M. On the nature of the transition between the mantle and crustal units in the Finero Complex (Ivrea-Verbano Zone, Southern Alps. Geophysical Research Abstracts Vol. 19, EGU2017-19618, 2017 EGU General Assembly 2017
46. Dilissen N., Hidas K., Garrido C.J., López Sánchez-Vizcaíno V., Kahl W-A, Padrón-Navarta J.A., and Román-Alpiste M.J. Relationship Between Far Field Stresses, Fluid Flow and High-Pressure Deserpentinization in Subducting Slabs: a Case Study From the Almirez Ultramafic Massif. European Geosciences Union General Assembly 2017, 23-28 April, 2017, Vienna, Austria, Geophysical Research Abstracts 19, EGU2017-16454.
47. Laborda-López C., López Sánchez-Vizcaíno V., Marchesi C., Gómez-Pugnaire M.T., Garrido C.J., Jabaloy-Sánchez A., and Padrón-Navarta J.A. Oxygen fugacity and chemical potentials as determinant factors in constraining the metamorphic evolution of subducted rodingites and enclosing ultramafic rocks. Vol. 19, EGU2017-15260, 2017. EGU General Assembly 2017
48. Zanetti A., Langone A., Tommasi A., Vauchez A., Padrón-Navarta J.A., Giovanardi T. and Mazzucchelli M. Is the contact between mantle and crustal units in the Finero Complex a fossil Permian Moho? Congresso congiunto SIMP-SGI-AIV-SoGel. Pisa, Italy 4-6 September 2017. Società Geologica Italiana, Roma 2017.
49. *Corvò S., Padrón-Navarta J.A., Zanetti A., Langone A. and Mazzucchelli M. Hydrogen content in nominally anhydrous minerals from Finero peridotite (Italy). Congresso congiunto SIMP-SGI-AIV-SoGel. Pisa, Italy 4-6 September 2017. Società Geologica Italiana, Roma 2017.
50. Bonazzi M., Langone A., Padrón-Navarta J.A., Ji W.Q., Zanetti A., Mazzucchelli M., Tiepolo M. and Giovanardi T. U-Pb dating of zircons from a dyke of the Finero Mafic Complex (Ivrea-Verbano Zone, Italian Alps): when a simple case become a paradox. Congresso congiunto SIMP-SGI-AIV-SoGel. Pisa, Italy 4-6 September 2017. Società Geologica Italiana, Roma 2017.

2016

51. *Clément M, Padrón-Navarta JA, Tommasi A., Mainprice D. Local stress field during serpentine dehydration inferred from orthopyroxene inversion to clinoenstatite. 4th Serpentine days. 25-29 September 2016, Sète, France.
52. Laborda C, López Sánchez-Vizcaíno V, Marchesi C., Gómez-Pugnaire MT, Padrón-Navarta JA, Jabaloy-Sánchez A., Garrido CJ. Metamorphic evolution and hydration–dehydration reactions of a serpentinite rodingite suite during subduction (Cerro del Almirez massif, Southern Spain). 4th Serpentine days. 25-29 September 2016, Sète, France.
53. Padrón-Navarta JA, López Sánchez-Vizcaíno V, Garrido CJ, Marchesi C., Gómez-Pugnaire, MT The high–pressure antigorite dehydration: a review of the unique record of Cerro del Almirez (Betic Cordillera, SE Spain). 4th Serpentine days. 25-29 September 2016, Sète, France.
54. *Maurice J., Bolfan-Casanova N., Manthilake G., Padrón-Navarta J.A., Hammouda T. Experimental investigation of Phase A stability: implications for water transportation in the mantle. Fifteenth International Symposium on Experimental Mineralogy, Petrology and Geochemistry (EMPG-XV), 5-8 June 2016 at ETH Zurich in Switzerland.
55. *Colás V., Tassara C.S., Padrón-Navarta J.A., González-Jiménez J.M., Griffin W.L., Isabel Fanlo I., O'Reilly S.Y., Gervilla F., Proenza J.A., Pearson N.J., Camprubí A., Escayola M.P., The effect of composition on minor and trace elements in spinels: insights from exsolved chromite. 2nd European Mineralogical Conference (IMA). Rimini, Italy 11-15 September 2016

56. *Clément M., Padrón-Navarta J.A., Tommasi A. & Mainprice D. Local stress field during serpentine dehydration inferred from orthopyroxene inversion to clinoenstatite European Mineralogical Conference. 2nd European Mineralogical Conference (IMA). Rimini, Italy 11-15 September 2016
57. Langone A., Padrón-Navarta JA, Zanetti A., Mazzucchelli M, Tiepolo M, Giovanardi T, and Bonazzi M. Brittle-ductile deformation effects on zircon crystal-chemistry and U-Pb ages: an example from the Finero Mafic Complex (Ivrea-Verbano Zone, western Alps). Geophysical Research Abstracts Vol. 18, EGU2016-6049, 2016 EGU General Assembly 2016
58. Laborda-López C., López Sánchez-Vizcaíno V., Marchesi C., Gómez-Pugnaire M.T., Garrido C.J., Jabaloy-Sánchez A., and Padrón-Navarta J.A. Petrological evolution of subducted rodingite from seafloor metamorphism to dehydration of enclosing antigorite-serpentinite (Cerro del Almirez massif, southern Spain). Geophysical Research Abstracts Vol. 18, EGU2016-14388, 2016 EGU General Assembly 2016
59. Padrón-Navarta JA, Tommasi A., Garrido CJ, Mainprice D., & Clément M. Strain rate and shear stress at the grain scale generated during near equilibrium antigorite dehydration. Geophysical Research Abstracts Vol. 18, EGU2016-15314, 2016 EGU General Assembly 2016
60. Garrido C.J, Padrón-Navarta J.A., López Sánchez-Vizcaíno V., Bodinier J.L., Bosch D., Marchesi C., and Hidas K. Formation of Garnet Granulite in the Lower Crust of a paleo-Island Arc. Geophysical Research Abstracts Vol. 18, EGU2016-11165, 2016 EGU General Assembly 2016
61. Hidas, K., Garrido, C.J., Tommasi, A., Padrón-Navarta, J.A., Mainprice, D., Vauchez, A., Marchesi, C., Barou, F. (2016) Feedback of fluids on ductile strain localization in the upper mantle. European Geosciences Union General Assembly 2016, 17-22 April, 2016, Vienna, Austria, Geophysical Research Abstracts 18, EGU2016-7048.
62. Konc, Z., Hidas, K., Garrido, C.J., Tommasi, A., Vauchez, A., Padrón-Navarta, J.A., Marchesi, C., Acosta-Vigil, A., Szabo, Cs., Varas-Reus, M.I. (2016) Flow in the shallow mantle in the westernmost Mediterranean: insights from xenoliths in Plio-Pleistocene alkali basalts from the eastern Betic Cordillera (SE Spain). European Geosciences Union General Assembly 2016, 17-22 April, 2016, Vienna, Austria, Geophysical Research Abstracts 18, EGU2016-7019.
63. Hidas, K., Garrido, C.J., Tommasi, A., Padrón-Navarta, J.A., Mainprice, D., Vauchez, A., Marchesi, C., Barou, F. (2016) Feedback of reactions on ductile strain localization in the shallow subcontinental lithospheric mantle. Keynote talk in session S10: Controls of mantle depletion/enrichment on geological processes at 88th Congress of the Italian Geological Society, 7-9 September, 2016, Naples, Italy, Abstract Volume

2015

64. *Scicchitano MR, Rubatto D, Hermann J, Padrón-Navarta JA & Shen T. Oxygen isotope analysis of serpentine minerals by SHRIMP: analytical developments and geological applications. Rend. Online Soc. Geol. It., Suppl. n. 2 al Vol. 35 (2015). Congresso congiunto SIMP-AIV-SoGel-SGI.
65. *Scicchitano MR, Rubatto D, Hermann J, Padrón-Navarta JA & Shen T. Oxygen Isotopes Analysis of Serpentine Minerals by SHRIMP: Analytical Developments and Geological Applications. 25th Annual V.M. Goldschmidt Conference. August 16-21, 2015, Prague, Czech Republic.
66. Gueydan F, Cenki-Tok B, Oliot E & Padrón-Navarta JA. Thermo-Geochemical Modeling of Fluid-Rock Interactions Under Greenschist Facies Conditions: Implications on Fault Formation in Metagabbros (Cap Corse, France). 25th Annual V.M. Goldschmidt Conference. August 16-21, 2015, Prague, Czech Republic.
67. *Shen, T., Zhang, L., Hermann, J., Wu F-Y., Padrón-Navarta, J. A., Chen J. UHP metamorphism documented in Ti-chondrodite- and Ti-clinohumite-bearing serpentinites from Southwestern Tianshan, China. 2015 GSA Annual Meeting in Baltimore, Maryland, USA (1-4 November 2015).
68. Dilissen N, Garrido CJ, López Sánchez-Vizcaíno V, and Padrón-Navarta JA. The dynamics of serpentinite dehydration reactions in subduction zones: Constrains from the Cerro del Almirez ultramafic massif (Betic Cordillera, SE Spain). EGU Vienna 2015 (EGU2015-15729).
69. Hidas K, Tommasi A, Garrido CJ, Padrón-Navarta JA, Mainprice D, Vauchez A, Barou F, and Marchesi C. Fluid-assisted strain localization in peridotites during emplacement of the shallow subcontinental lithospheric mantle. European Geosciences Union General Assembly 2015, 12-17 April, 2015, Vienna, Austria, Geophysical Research Abstracts 16, EGU2015-15729 (EGU2015-11894).

70. Padrón-Navarta JA (invited), Hermann, J., O'Neill. Evidences and consequences of slow hydrogen diffusion in olivine. AGU Fall Meeting 2014, 15-19 December, 2014, San Francisco, CA, USA.
71. Rosenthal A, Frost DJ, Petitgirard S, Yaxley GM, Berry AJ, Woodland AB, Pinter Z, Vasilyev P, Ionov DA, Jacob DE, Pearson DG, Kovacs I, Padrón-Navarta JA. High pressure experimental study of eclogite with varying H₂O contents. AGU Fall Meeting 2014, 15-19 December, 2014, San Francisco, CA, USA.
72. Hidas K, Tommasi A, Garrido CJ, Padrón-Navarta JA, Mainprice D, Barou F, Marchesi C. Fluid-Assisted Ductile Strain Localization in the Shallow Subcontinental Lithospheric Mantle (Ronda Massif, Betic Cordillera, S-Spain). AGU Fall Meeting 2014, 15-19 December, 2014, San Francisco, CA, USA
73. Jones AG, Padrón-Navarta JA. Proton Conduction and Hydrogen Diffusion in Olivine: Reconciling Laboratory and Field Observations and Implications for Average Grain Size in the Lithospheric Mantle. AGU Fall Meeting 2014, 15-19 December, 2014, San Francisco, CA, USA.
74. Hidas, K., Tommasi, A., Garrido, C.J., Padrón-Navarta, J.A., Mainprice, D., Vauchez, A., Barou, F., Marchesi, C. (2015) Ductile strain localization assisted by fluids in the shallow subcontinental lithospheric mantle (Ronda massif, Betic Cordillera, South Spain). Micro-Dynamics of Ice (Micro-DICE) ESF Research Networking Programme 2015, 30 March-1 April, 2015, Montpellier, France, Abstract Volume
75. Shen T, Zhang L, Hermann J, Zeng LV, Chen J, Xia B, Padrón-Navarta JA, and Bader T. Petrological study of Ti-chondrodite- and Ti-clinohumite-bearing serpentinites from Chinese Southwestern Tianshan. 2014 GSA Annual Meeting in Vancouver, British Columbia (19–22 October 2014).
76. Hidas, K., Tommasi, A., Garrido, C.J., Padrón-Navarta, J.A., Mainprice, D., Barou, F., Marchesi, C. (2014) Fluid-assisted ductile strain localization at low temperature in the shallow subcontinental lithospheric mantle (Ronda massif, Betic Cordillera, S-Spain). Gordon Research Seminar on Rock Deformation, 16-17 August, Andover (NH, USA).
77. Hidas, K., Garrido, C.J., Tommasi, A., Padrón-Navarta, J.A., Thielmann, M., Mainprice, D., Barou, F., Konc, Z., Marchesi, C., Frets, E. (2014) Examples for fluid-assisted ductile strain localization in the shallow subcontinental lithospheric mantle during the final exhumation of the Ronda massif (Betic Cordillera, S-Spain). Gordon Research Conference on Rock Deformation, 17-22 August, Andover (NH, USA).
78. Hidas K, Garrido, C.J., Tommasi A, Padrón-Navarta JA, Thielmann M, Konc Z, Marchesi C, Frets E. Ductile strain localization in the shallow subcontinental lithospheric mantle during the final exhumation of the Ronda massif (Betic Cordillera, S-Spain). 6th Orogenic Lherzolite Conference, 4-15 May, Marrakesh, Morocco, Abstract Volume
79. Hidas K, Tommasi A, Vauchez A, Padrón-Navarta JA, Boudier F. Analysis of strain localization in the subcontinental lithospheric mantle under retrograde conditions on the example of the southern Lanzo shear zone (Alps, northern Italy). 6th Orogenic Lherzolite Conference, 4-15 May, Marrakesh, Morocco, Abstract Volume
80. *Jollands M, Hermann J, O'Neill H, Padrón-Navarta JA. Hydrogen diffusion in forsterite and implications for determining the water content of the mantle. EGU Vienna 2014 (EGU2014-10541).
81. Hidas K, Tommasi A, Garrido CJ, Padrón-Navarta JA, Marchesi C. Strain localization in the subcontinental lithospheric mantle during the final exhumation of the Ronda Peridotite (Betic Cordillera, S-Spain). European Geosciences Union General Assembly 2013, 27 April-2 May, 2014, Vienna, Austria, Geophysical Research Abstracts 16, EGU2014-12425.
82. Padrón-Navarta JA (invited), Tommasi A, Garrido CJ. Dehydration-driven topotaxy in subduction zones. EGU Vienna 2014 (EGU2014-12917)
83. Padrón-Navarta JA. Hermann J. Water incorporation in NAMs after antigorite and chlorite dehydration reactions. EGU Vienna 2014 (EGU2014-16062).
84. Marchesi C, Garrido CJ, Padrón-Navarta JA, López Sánchez-Vizcaíno V, Gómez-Pugnaire MT, Rosner M, Laborda López C. Fluid-assisted remobilization of lithophile and highly siderophile elements upon subduction and dehydration of serpentinite (Cerro del Almirez, southern Spain). EGU Vienna 2014 (EGU2014-14493).
85. Jabaloy-Sánchez A, López Sánchez-Vizcaíno V, Gómez-Pugnaire MT, Padrón-Navarta JA, Garrido CJ. Subduction and exhumation structures preserved in Cerro del Almirez HP metaserpentinites (Betic Cordillera, SE Spain). EGU Vienna 2014. EGU2014-16603

86. Hidas K, Garrido CJ, Targuisti K, Padrón-Navarta JA, Tommasi A, Marchesi C, Konc Z, Varas-Reus MI, Acosta Vigil A. Hyperextension of continental lithospheric mantle to oceanic-like lithosphere: the record of late gabbros in the Ronda subcontinental lithospheric mantle section (Betic Cordillera, S-Spain). European Geosciences Union General Assembly 2013, 27 April-2 May, 2014, Vienna, Austria, Geophysical Research Abstracts 16, EGU2014-12259.

2013

87. Hidas, K., Tommasi A., Vauchez, A., Padrón-Navarta J.A., Boudier, F., Strain localization in the lithospheric mantle under retrograde conditions: the southern Lanzo shear zone (Alps, northern Italy). December 9-13, San Francisco. AGU Fall Meeting 2013, 9-13 December, 2013, San Francisco, CA, USA (T53C-2601).
88. Padrón-Navarta JA (invited). Spatiotemporal evolution of dehydration reactions in subduction zones. December 9-13, San Francisco. AGU Fall Meeting 2013, 9-13 December, 2013, San Francisco, CA, USA (V11A-01).
89. Padrón-Navarta, J.A., Hermann, J., O'Neill H. Complex hydrogen diffusion in forsterite. December 9-13, San Francisco. AGU Fall Meeting 2013, 9-13 December, 2013, San Francisco, CA, USA (MR41A-2353).
90. Garrido, C.J., Hidas, K., Tommasi, A., Padrón-Navarta, J.A., Thielmann, M., Konc, Z., Marchesi, C., Frets, E. Ductile strain localization in pyroxenite by reaction-enhanced softening in the shallow subcontinental lithospheric mantle (Ronda Peridotite, Betic Cordillera, S. Spain). December 9-13, San Francisco. AGU Fall Meeting 2013, 9-13 December, 2013, San Francisco, CA, USA (T43G-07).
91. Padrón-Navarta JA, Hermann J & O'Neill H. Hydrogen Diffusion in Ti-Bearing Forsterite. Mineralogical Magazine, 77(5) 1911. 22th Annual V.M. Goldschmidt Conference. August 25-30, 2013, Florence, Italy.
92. López Sánchez-Vizcaíno V, Padrón-Navarta JA, Hermann J, Connolly JA, Garrido CJ, Gómez Pugnaire MT & Marchesi C. Potential Geothermometer for Antigorite Serpentinite. Mineralogical Magazine, 77(5) 1640. 22th Annual V.M. Goldschmidt Conference. August 25-30, 2013, Florence, Italy.
93. Marchesi C, Garrido CJ, Padrón-Navarta JA, López Sánchez-Vizcaíno V & Gómez-Pugnaire MT. Element Mobility from Seafloor Serpentinization to High-Pressure Dehydration of Antigorite in Subducted Serpentinite: Insights from Cerro del Almirez (Southern Spain). Mineralogical Magazine, 77(5) 1681. 22th Annual V.M. Goldschmidt Conference. August 25-30, 2013, Florence, Italy.
94. Harvey J, Garrido C, Agostini S, Padrón-Navarta J.A, López Sánchez-Vizcaíno V, Savov I & Marchesi C. Sub-Arc $\delta^{11}\text{B}$: The Introduction of Boron Isotope Heterogeneity into the Convecting Mantle. Mineralogical Magazine, 77(5) 1266. 22th Annual V.M. Goldschmidt Conference. August 25-30, 2013, Florence, Italy.
95. Urošević M, Nebel O, Peterson E, Padrón-Navarta JA & Rubatto D. Assessing Iron and Oxygen Isotope Homogeneity in Garnets. Mineralogical Magazine, 77(5) 2380. 22th Annual V.M. Goldschmidt Conference. August 25-30, 2013, Florence, Italy.

2012

96. Harvey J, Garrido C, Agostini S, Padrón-Navarta J.A, López Sánchez-Vizcaíno V & Marchesi C. High-Pressure Dehydration of Antigorite-Serpentinite and its Effect on Boron Isotope Fractionation in the Shallow Mantle Wedge. 22th Annual V.M. Goldschmidt Conference. June 24-29, 2012, Montréal, Canada
97. Padrón-Navarta JA (invited). Gómez-Pugnaire MT, López Sánchez-Vizcaíno V, Garrido CJ, Marchesi C., Bimodal fluid flow pattern during the high-pressure dehydration of serpentinite. 34th International Geological Congress 5-10 August 2012 (Brisbane, Australia).
98. Padrón-Navarta JA, Gómez-Pugnaire MT, López Sánchez-Vizcaíno V, Garrido CJ, Marchesi C., The fate of metaclinopyroxenite during serpentinite subduction. EGU General Assembly, Vienna 2012 (Vol. 14, EGU2012-12766).
99. Garrido CJ., Padrón-Navarta J.A, López-Sánchez-Vizcaíno V., Gómez-Pugnaire MT, Marchesi C, Tommasi A. Dynamics of fluid expulsion during high-pressure devolatilization of serpentinite in subduction settings: field, petrological and textural constraints from the Almirez ultramafic massif. EGU General Assembly, Vienna 2012 (EGU2012-7750).

100. Garrido C.J, Alt J.C., Sanks W.C., Turchyn A., Padrón-Navarta J.A, López-Sánchez-Vizcaíno V., Gómez-Pugnaire M.T., Marchesi C. Tracing the Recycling of Water, Carbon, and Sulfur during Subduction Metamorphism of Seafloor Serpentinites. EGU General Assembly, Vienna 2012 (EGU2012-8798).
101. Hidas K., Garrido C.J., Tommasi A., Padrón-Navarta J.A., Konc Z., Frets E., Marchesi C., Booth-Rea G. Phase transformation induced strain localization in mantle pyroxenite from the Ronda Peridotite Massif (Betic Cordillera, Southern Spain). European Geosciences Union General Assembly 2012, 22-27 April, 2012, Vienna, Austria, Geophysical Research Abstracts 14, EGU2012-6040.
102. Hidas, K., Garrido, C.J., Booth-Rea, G., Martínez-Martínez, J.M., Padrón-Navarta, J.A., Konc, Z., Giacomini, F., Frets, E., Marchesi, C. (2012) Backarc basin inversion leading to folding, shearing and intracrustal emplacement of the subcontinental lithospheric mantle: a structural study from the Ronda Peridotite Massif (Betic Cordillera, Southern Spain). European Geosciences Union General Assembly 2012, 22-27 April, 2012, Vienna, Austria, Geophysical Research Abstracts 14, EGU2012-6083.
103. Konc Z., Garrido C. J., Tommasi A., Padrón-Navarta J. A., Hidas K., Bosch D., Marchesi C., Szabó Cs.. Age, origin and significance of SKS splitting in SE Iberia: insights from mantle xenoliths from Neogene alkaline basalts. European Geosciences Union General Assembly 2012, 22-27 April, 2012, Vienna, Austria, Geophysical Research Abstracts 14, EGU2012-9056

2011

104. Konc Z., Garrido C.J., Tommasi A., Padrón-Navarta J.A., Hidas K, Szabo C. Seismic properties and deformation record of the shallow upper mantle beneath SE Iberia: insights from mantle xenoliths in Neogene alkaline basalts. AGU Fall meeting 2011 (T43E-2407).
105. Hidas K, Garrido C.J., Tommasi A., Konc Z., Padrón-Navarta J.A., Booth-Rea G. Strain localization in pyroxenite by reaction-enhanced softening during thinning of shallow subcontinental lithospheric mantle. AGU Fall meeting 2011 (T43C-2328)
106. Garrido C.J., Marchesi C., Bosch D., Bodinier J.L., Hidas K., Padrón-Navarta J.A., Gervilla F. A Late Oligocene supra-subduction setting in the westernmost Mediterranean revealed by intrusive pyroxenite dykes in the Ronda peridotite (southern Spain). AGU Fall meeting 2011(T52D-03).
107. Harvey J, Garrido C, Agostini S, Padrón-Navarta J.A, López Sánchez-Vizcaíno V, Savov I, Marchesi C. Boron isotope fractionation during high-pressure dehydration of antigorite serpentinite. AGU Fall meeting 2011 (V41C-2504).
108. Padrón-Navarta J.A., López-Sánchez Vizcaíno V., Garrido C.J., Gómez-Pugnaire M.T., Marchesi C. Fluid flow pattern during high-pressure antigorite dehydration: a unique natural example from Cerro del Almirez (South Spain). Conference of the Specialist Group in Geochemistry, Mineralogy and Petrology, Murramarang Nov 20-25, 2011. Australia (Abstract Volume, 44).
109. Gervilla F, Fanlo I, Kerestedjian T, Castroviejo R, Padrón-Navarta JA, Rodrigues JF, González-Jiménez JM. Origin of Ferrian Chromite in Metamorphosed Podiform Chromitites: a Two-Stage Process. 11th Biennial Society for Geology Applied to Mineral Deposits (SGA). Antofagasta, Chile, September 26-29 2011.
110. Padrón-Navarta JA, López Sánchez-Vizcaíno V, Garrido CJ, Gómez-Pugnaire MT & Marchesi C. The Arrested HP Antigorite Dehydration Front from Cerro del Almirez (SE Spain) (2011) (Gold2011:abs:4759). 21th Annual V.M. Goldschmidt Conference
111. Marchesi C, Garrido CJ, Padrón-Navarta JA, Gómez-Pugnaire MT & López Sánchez-Vizcaíno V. Geochemistry of Antigorite Serpentine and Chlorite Harzburgite from the Cerro del Almirez (S. Spain): Compositional Constraints on Fluids Released by Dehydration of Mantle Serpentinites (2011) (Gold2011:abs:4856). 21th Annual V.M. Goldschmidt Conference
112. Padrón-Navarta, J.A., Tommasi, A., Garrido, C.J. López Sánchez-Vizcaíno, V., Gómez-Pugnaire M.T. Antigorite microstructures in HP-HT serpentinite from Cerro del Almirez (Betic Cordillera, Spain). The Interrelationship between Deformation and Metamorphism (DEFMET) - an international meeting in honour of Professor T.H. Bell, 23-26 May, 2011, Granada, Spain, Abstracts Volume.
113. Hidas, K., Garrido, C.J., Tommasi, A., Konc, Z., Padrón-Navarta, J.A., Booth-Rea, G. (2011) Reaction-enhanced strain localization in mantle pyroxenite during thinning of the subcontinental lithospheric mantle. The Interrelationship between Deformation and Metamorphism (DEFMET) - an international meeting in honour of Professor T.H. Bell, 23-26 May, 2011, Granada, Spain, Abstracts Volume.

114. Erwin Frets, E. Garrido, C.J. Tommasi, A. Padrón-Navarta, J.A. Deformation of Mantle Pyroxenites From the Beni Bousera Peridotite Massif (Northern Morocco). 2011. The Interrelationship between Deformation and Metamorphism (DEFMET) - an international meeting in honour of Professor T.H. Bell, 23-26 May, 2011, Granada, Spain, Abstracts Volume.
115. Padrón-Navarta J. A., López Sánchez-Vizcaíno V., Garrido C. J., and Gómez-Pugnaire M. T. (2011). Metamorphic record of high-pressure dehydration of antigorite serpentinite to chlorite harzburgite in a paleo-subduction setting. EGU General Assembly, Vienna 2011.
116. Padrón-Navarta J. A., Tommasi A., Garrido C. J., López Sánchez-Vizcaíno V., Gómez-Pugnaire M. T. (2011). Plastic deformation and development of antigorite crystal preferred orientation in serpentinite. EGU General Assembly, Vienna 2011.
117. Gervilla F, Isabel Fanlo I, Kerestedjian, T. N, Castroviejo R, González-Jiménez J.M., Padrón-Navarta J.A., Rodríguez J. F. (2011). Alteration Mechanism of Chromite in Podiform Chromitites from two Metamorphosed Ophiolitic Complexes: Golyamo Kamenyane (Bulgaria) and Tapo (Peru). EGU General Assembly, Vienna 2011.
118. Marchesi C, Garrido CJ, Padrón-Navarta J.A., Gómez-Pugnaire M. T., López Sánchez-Vizcaíno V (2011). Transfer of lithophile and siderophile elements during high-pressure dehydration of antigorite in subduction settings: new insights from the Cerro del Almiréz (Betic cordillera, S. Spain). European Geosciences Union General Assembly 2011, 3-8 April, 2011, Vienna, Austria, Geophysical Research Abstracts 13, EGU2011-3987.
119. Garrido C.J., Gueydan F, Booth-Rea G, Precigout J, Hidas K, Padrón-Navarta J.A., Marchesi C. (2011) Garnet Lherzolite and Garnet-spinel mylonite in the Ronda Peridotite: Vestiges of Oligocene Back-arc mantle lithospheric extension in the Western Mediterranean. European Geosciences Union General Assembly 2011, 3-8 April, 2011, Vienna, Austria, Geophysical Research Abstracts 13, EGU2011-2991.
120. Konc, Z., Garrido, C.J., Tommasi, A., Padrón-Navarta, J.A., Hidas, K., Szabo, Cs. (2011) Seismic properties and deformation record of the shallow upper mantle beneath SE Iberia: insights from mantle xenoliths in Neogene alkaline basalts. AGU Fall Meeting 2011, 2-9 December, 2011, San Francisco, CA, USA
121. Hidas, K., Garrido, C.J., Tommasi, A., Konc, Z., Padrón-Navarta, J.A., Booth-Rea, G. (2011) Strain localization in mantle pyroxenite by reaction-enhanced softening during thinning of the SCLM. AGU Fall Meeting 2011, 2-9 December, 2011, San Francisco, CA, USA

2010

122. Padrón-Navarta J. A., Tommasi A., Garrido C.J., López Sánchez-Vizcaíno V., Gómez-Pugnaire M. T., Jabaloy A., and Vauchez A. Record of high permeability channelways for overpressured fluids during high pressure antigorite dehydration. 88th Annual Meeting of the German Mineralogical Society, 88th Annual Meeting of the German Mineralogical Society Abstracts, 26, Muenster (Germany), 2010.
123. Padrón-Navarta J. A., López Sánchez-Vizcaíno V., Garrido C. J., and Gómez-Pugnaire M. T. (2010) Textural record of metamorphic fluids expulsion during high-pressure deserpentinization. 20th Annual VM Goldschmidt Conference. Knoxville, Tennessee (USA).
124. Garrido C. J., Padrón-Navarta J. A., Tommasi A., López Sánchez-Vizcaíno V., Gómez-Pugnaire M. T., Jabaloy A., and Vauchez A. (2010) High-pressure hydrofracturing during deserpentinization. 20th Annual VM Goldschmidt Conference. Knoxville, Tennessee (USA).
125. Padrón-Navarta J. A., Tommasi A., Garrido C. J., López Sánchez-Vizcaíno V., Gómez-Pugnaire M. T., Jabaloy A., and Vauchez A. (2010) Hydrofracturing in the cold top-slab mantle wedge: insights from field and microstructural observations. EGU General Assembly, Vienna 2010.
126. Padrón-Navarta J. A., Hermann J., Garrido C. J., López Sánchez-Vizcaíno V., and Gómez-Pugnaire M. T. (2010) New experimental data on the antigorite dehydration in silica enriched serpentinite. EGU General Assembly, Vienna 2010.
127. López Sánchez-Vizcaíno V., Padrón-Navarta J. A., Garrido C. J., and Gómez-Pugnaire M. T. (2010) Witness of fluid-flow organization during the high-pressure antigorite breakdown. EGU General Assembly, Vienna 2010.

2009

128. López Sánchez-Vizcaíno V., Gómez-Pugnaire M. T., Garrido C. J., Padrón-Navarta J. A., and Mellini M. (2009) Breakdown mechanisms of titanclinochlore in antigorite serpentinite. *Geochimica Et Cosmochimica Acta* 73(13), A791-A791. Davos, Switzerland, 21 –26 June 2009.
129. Padrón-Navarta J. A., Hermann J., Garrido C. J., López-Sánchez-Vizcaíno V., Gómez-Pugnaire M.T. Antigorite dehydration in silica enriched serpentinite [oral presentation]. *Geochimica et Cosmochimica Acta* A984. 19th Annual V.M. Goldschmidt Conference, Davos, Switzerland, 21 –26 June 2009.

2008

130. Padrón-Navarta, J. A., Garrido, C., Gómez-Pugnaire, M. T., López Sánchez-Vizcaíno, V. & Tommasi, A. Orientación Cristalográfica Preferente en las Rocas con Textura Pseudospinel del Cerro del Almirez: Estudio mediante EBSD [oral presentation]. *Macla* 9, 202-204 (in Spanish). Zaragoza, Spain, 16 – 19 September 2008.
131. Padrón-Navarta, J. A., Garrido, C. J. & Sánchez-Navas, A. Oriented growth of garnet by topotactic reactions in high-Pressure, mafic garnet granulite during dehydration melting of hornblende-gabbroanorthite [oral presentation]. *Geophysical Research Abstracts*, Vol. 10. European Geosciences Union Fall Meeting, General Assembly, Vienna, Austria, 13 – 18 April 2008.

2006

132. Padrón-Navarta, J. A., Garrido, C. J., Gómez-Pugnaire, M. T. & López Sánchez-Vizcaíno, V., (2006). Relaciones de fase en la deshidratación-fusión de la corteza inferior de arcos de islas: Complejo de Kohistan (NW Himalayas) (in Spanish). *Macla* 6, 347-350. Spanish Mineralogical Society XXVI Annual Meeting, Oviedo, Spain, 11 – 14 September 2006.

List of contributions to workshops

1. Padrón-Navarta J.A (invited). Hydrogen under pressure and the hidden oceans of the Earth. Escuela Española de Altas Presiones (EEAP – 2021) Grupo MALTA, 2 September 2021, University of Valencia.
2. Padrón-Navarta J.A. Antigorite dehydration Kinetics: a punctuated and continuous model. Interplay between mineral reactions and deformation workshop 4-6 September 2017, ETH Zurich.
3. Clément M, Padrón-Navarta JA, Tommasi A., Mainprice D. Local stress field in dehydrating serpentinites inferred from orthopyroxene inversion to clinoenstatite. Interplay between mineral reactions and deformation workshop 4-6 September 2017, ETH Zurich.
4. Hidas, K., Garrido, C.J., Tommasi, A., Padrón-Navarta, J.A., Mainprice, D., Vauchez, A., Marchesi, C., Barou, F. (2017) Role of fluids in ductile strain localization in the shallow subcontinental lithospheric mantle. FLOWS-COST Final Meeting, 9-11 October, 2017, Granada, Spain, Abstract Book
5. Hidas, K., Garrido, C.J., Tommasi, A., Padrón-Navarta, J.A., Thielmann, M., Konc, Z., Frets, E., Marchesi, C. (2013) Ductile strain localization in mantle pyroxenite by reaction enhanced softening. 4th Crystal2Plate Workshop, 27-31 January, 2013, Frejus, France, Poster Abstracts.
6. Hidas, K., Garrido, C.J., Booth-Rea, G., Martinez-Martinez, J.M., Padrón-Navarta, J.A., Frets, E., Konc, Z., Giaconia, F., Marchesi, C. (2012) Folding and shearing of the subcontinental lithospheric mantle in a backarc basin inversion leading to intracrustal emplacement of the Ronda peridotite massif (Betic Cordillera, Southern Spain). 3rd Crystal2Plate Workshop, 17-21 January, 2012, Bristol, UK, Poster Abstracts.
7. Garrido C.J., Alt J.C., Shanks W.C., Turchyn A., Padrón-Navarta J.A., López-Sánchez Vizcaíno V., Gómez-Pugnaire M.T., Marchesi C. Tracing the Recycling of Water, Carbon, and Sulfur during Subduction Metamorphism of Seafloor Serpentinites: A Stable Isotope Study of the Almirez Massif, Spain. ILP Nature of the plate interface in Subduction Zones. ILP Task force IX - Workshop July, 2-7, 2011, W. Alps (Piemonte Italy).
8. Marchesi C., Garrido C.J., Padrón-Navarta J.A., Gómez-Pugnaire M.T., López-Sánchez Vizcaíno V. Major and trace element composition of antigorite serpentinite and chlorite harzburgite from the Cerro del Almirez

(southern Spain): insights into element mobility during high-pressure dehydration of mantle serpentinite. ILP Nature of the plate interface in Subduction Zones. ILP Task force IX - Workshop July, 2-7, 2011, W. Alps (Piemonte Italy).

9. Padrón-Navarta JA, López Sánchez-Vizcaíno V, Garrido CJ, Gómez-Pugnaire MT. A unique natural laboratory to investigate geochemical and petrophysical processes affecting the hydrated mantle in subduction zones: Cerro del Almirez (Betic Cordillera, Spain). ILP Nature of the plate interface in Subduction Zones. ILP Task force IX - Workshop July, 2-7, 2011, W. Alps (Piemonte Italy).
10. Padrón-Navarta J.A. (invited). Microtextures related with mineral replacement reactions: a natural example of a high-pressure dehydration reaction. Delta-Min Network short-course, Santorini (3-8 October 2010). Delta-Min is a Marie Curie Initial Training Network of the EU Seventh Framework Programme.