

Mineralogía y Petrología

Áreas de conocimiento: Cristalografía y Mineralogía; Petrología y Geoquímica

Director: Nicolás Velilla Sánchez

Secretario: Inmaculada Palomo Delgado

Página web: <http://www.ugr.es/~minpet/>

Profesorado: CU: 13, PTU: 8, PDI Contratado y Otros: 4

Tesis leídas

- Estudio petrológico, geoquímico y geocronológico comparado de las Ofiolitas Béticas de Sierra de Baza con otras Ofiolitas Béticas

Doctorando: José Antonio Lozano Rodríguez

Director: Antonio García Casco, Encarnación Puga Rodríguez, Agustín Martín Algarra

Fecha de lectura: 29 de junio de 2018

- Pigment-binder interaction under urban atmosphere: novel approaches to unravel chemical physical degradation in model paintings. Universidad de Granada. Modalidad Doctorado Internacional

Doctorando: Juan Agustín Herrera Rubia

Director: Carolina Cardell Fernández y Natalia África Navas Iglesias

Fecha de lectura: 13 de julio de 2018

- Mineralogy, geochemistry and petrogenesis of a new jade deposit, Sierra del Convento Mélange, E. Cuba

Doctorando: Juan Cárdenas Párraga

Director: Antonio García Casco y George E. Harlow

Fecha de lectura: 18 enero de 2019

- Estudio histórico, material y técnico de los paramentos del Palacio de Pedro I. Reales Alcázares de Sevilla. Universidad de Granada

Doctorando: M^a del Carmen Moral Ruiz

Director: Antonio Almagro Gorbea, Giuseppe Cultrone y Ana García Bueno

Fecha de lectura: 29 de enero de 2019

Grupos de Investigación.

RNM145 GEOQUIM.DE PROC.ENDOG.Y PETROG.DE ROCAS IGNEAS Y METAM.

- Responsable: MARIA TERESA GOMEZ PUGNAIRE

RNM131 GRUPO DE INVESTIGACIÓN MINERALOGÍA PETROLOGÍA Y YACIMIENTOS MINERALES (GIMPY)

- Responsable: JOSE TORRES RUIZ

RNM179 MINERALOGÍA Y GEOQUÍMICA DE LOS AMBIENTES SEDIMENTARIO Y METAMÓRFICO

- Responsable: MIGUEL ORTEGA HUERTAS

RNM302 PETROLOGIA Y MODELIZACION DE PROCESOS LITOSFERICOS

- Responsable: FERNANDO BEA BARREDO

FQM195 QUIMICA DE LA COORDINACIÓN Y ANÁLISIS ESTRUCTURAL

- Responsable: MANUEL RODRÍGUEZ GALLEGO

Dirección y participación en Proyectos I+D

- 2019 Renovación del equipo de catodoluminiscencia (CL) del microscopio electrónico de barrido ambiental FEI mod. Quanta 400 y de la unidad de metalización para los estudios por CL, , 10/01/2019- Responsable ANTONIO SÁNCHEZ NAVAS

- 2018 Volcanoes: eruptive style, pre-eruptive evolution and risk (VESPER), , 19/02/2018-18/02/2020

Investigador/a JANE HANNAH SCARROW

- 2018 'ESTUDIO INTEGRAL (TEORICO, EXPERIMENTAL, PETROLOGICO) DE LA ESTABILIDAD SUBSOLIDUS DEL CIRCON EN CONDICIONES DE ALTA T (> 1000 °C) E HIDROTERMALES', Competitivo, 01/01/2018-31/12/2020

Responsable MARIA PILAR GONZALEZ MONTERO

Responsable FERNANDO BEA BARREDO

- 2018 Estudio integral (teorico, experimental, petrologico) de la estabilidad subsolidus del circon en condiciones de alta T (> 1000 °c) e hidrotermales, , 01/01/2018-31/12/2020

Investigador/a JOSE FRANCISCO MOLINA PALMA

Publicaciones en revistas

- 2019 Artículo: Characterization and damage assessment of stones used in the Pasargadae World Heritage Site, Achaemenian period, International Journal of Architectural Heritage, 13, , 521-536

ANNA ARIZZI

GIUSEPPE CULTRONE

- 2019 Artículo: Local production and imitations of Late Roman pottery from a well in the Roman necropolis of Cuma in Naples, Italy, Geoarchaeology, 34, , 62-79

GIUSEPPE CULTRONE

- 2019 Artículo: Effect of animal glue on mineralogy, strength and weathering resistance of calcium sulfate-based composite materials, *Cement & Concrete Composites*, 96, , 274-283

CAROLINA CARDELL FERNANDEZ

KERSTIN ELERT

- 2019 Artículo: On the use of sodium chloride and calcined diatomite sludge as additives to improve the engineering properties of bricks made with a clay earth from Jun (Granada, Spain), *Minerals*, 9, 64, 1-22

GIUSEPPE CULTRONE

- 2019 Artículo: Analysis of tempered bricks: from raw material and additives to fired bricks for use in construction and heritage conservation, *European Journal of Mineralogy*, , , -

EDUARDO M. SEBASTIÁN PARDO

GIUSEPPE CULTRONE

- 2019 Artículo: A quick methodology for the evaluation of preliminary toxicity levels in soil samples associated to a potentially heavy-metal pollution in an abandoned ore mining site, *Chemosphere*, 222, , 345-354

CARMEN MARÍA ESTEPA MOLINA

SALVADOR MORALES RUANO

- 2019 Artículo: Mineralogical, textural and physical characterization to determine deterioration susceptibility of Irulegi Castle lime mortars (Navarre, Spain), *Materials*, 12, 584, 1-17

ANNA ARIZZI

GIUSEPPE CULTRONE

- 2019 Artículo: Detrital zircon U-Pb ages in the Rif Belt (northern Morocco): Paleogeographic implications, *Gondwana Research*, 70, , 133-150

CRISTINA TALAVERA RODRÍGUEZ

- 2019 Artículo: Mixed and recycled detrital zircons in the Paleozoic rocks of the Eastern Moroccan Meseta: paleogeographic inferences, *Lithos*, 338-339, , 73-86

CRISTINA TALAVERA RODRÍGUEZ

- 2019 Artículo: Weathering behavior of cinnabar-based tempera paints upon natural and accelerated aging, *Spectrochimica Acta, Part A: Molecular and Biomolecular Spectroscopy*, 216, 5, 236-248

CAROLINA CARDELL FERNANDEZ

KERSTIN ELERT

- 2019 Artículo: Performance of alkaline activation for the consolidation of earthen architecture, *Journal of Cultural Heritage*, , , -

EDUARDO M. SEBASTIÁN PARDO

KERSTIN ELERT

LUIS MONASTERIO GUILLOT

- 2018 Artículo: The combined use of spectroscopic techniques for the characterization of Late Roman common wares from Benevento (Italy), *Measurement: Journal of the International Measurement Confederation*, 114, , 515-525

GIUSEPPE CULTRONE

- 2018 Artículo: Pigment-binder interactions in calcium-based tempera paints, *Dyes and Pigments*, 148, , 236-248

CAROLINA CARDELL FERNANDEZ

JUAN AGUSTIN HERRERA RUBIA

KERSTIN ELERT

- 2018 Artículo: A Testbed for Evaluating Video Streaming Services in LTE, *Wireless Personal Communications*, 98, 3, 2753-2773

INMACULADA PALOMO DELGADO

- 2018 Artículo: Appraising timing response of paleoenvironmental proxies to the Bond cycle in the western Mediterranean over the last 20 kyr, *Climate Dynamics*, 50, , 2925-2934

MIGUEL ORTEGA HUERTAS

- 2018 Artículo: Recycling trachyte waste from the quarry to the brick industry: effects on physical and mechanical properties, and durability of new bricks, *Construction and Building Materials*, 166, , 792-807

GIUSEPPE CULTRONE

- 2018 Artículo: Smectite formation upon lime stabilization of expansive marls, *Applied Clay Science*, 158, , 29-38

FERNANDO NIETO GARCÍA

KERSTIN ELERT

- 2018 Artículo: Petrology, phase equilibria modelling, noble gas chronology and thermal constraints of the El Pozo L5 meteorite, *Chemie der Erde / Geochemistry*, , , -

JOSE FRANCISCO MOLINA PALMA

- 2018 Artículo: Análisis de alteraciones murarias y modificaciones relacionales en dos áreas del palacio de

- Pedro I del Alcázar de Sevilla mediante estudio documental y verificación termográfica, *Arqueología de la arquitectura*, 15, e068, 1-25
GIUSEPPE CULTRONE
- 2018 Artículo: Assessment of the efficacy of ethyl silicate and dibasic ammonium phosphate consolidants in improving the durability of two building sandstones from Andalusia (Spain), *Environmental Earth Sciences*, 77, 302, 1-15
GIUSEPPE CULTRONE
- 2018 Artículo: Comparing the pozzolanic activity of aerial lime mortars made with metakaolin and fluid catalytic cracking catalyst residue: a petrographic and physical-mechanical study, *Construction and Building Materials*, 184, , 382-390
ANNA ARIZZI
GIUSEPPE CULTRONE
- 2018 Artículo: The use of mineralogical indicators for the assessment of firing temperature in fired-clay bodies, *Applied Clay Science*, 163, , 108-118
GIUSEPPE CULTRONE
- 2018 Artículo: Optimization of lime and clay-based hemp-concrete wall formulations for a successful lime rendering, *Construction and Building Materials*, 184, , 76-86
ANNA ARIZZI
GIUSEPPE CULTRONE
- 2018 Artículo: Effect of proteinaceous binder on pollution-induced sulfation of lime-based tempera paints, *Progress in Organic Coatings*, 123, , 99-110
ALEJANDRO BURGOS CARA
CAROLINA CARDELL FERNANDEZ
JUAN AGUSTIN HERRERA RUBIA
KERSTIN ELERT
- 2018 Artículo: Validated reverse phase HPLC diode array method for the quantification of intact bevacizumab, infliximab and trastuzumab for long-term stability study, *International Journal of Biological Macromolecules*, 116, , 993-1003
JUAN AGUSTIN HERRERA RUBIA
- 2018 Artículo: Lu-Hf ratios of crustal rocks and their bearing on zircon Hf isotope model ages: the effects of accessories., *Chemical Geology*, 484, , 179-190
FERNANDO BEA BARREDO
JOSE FRANCISCO MOLINA PALMA
MARIA PILAR GONZALEZ MONTERO
- 2018 Artículo: A model of mantle-crust interaction and magma generation in the Urals Paleozoic suprasubduction orogen, *Litosfera*, 18, 2, 177-207
FERNANDO BEA BARREDO
MARIA PILAR GONZALEZ MONTERO
- 2018 Artículo: Experimental evidence for the preservation of U-Pb isotope ratios in mantle-recycled crustal zircon grains, *Scientific Reports*, 8, 1, 1-10
FERNANDO BEA BARREDO
JOSE FRANCISCO MOLINA PALMA
MARIA PILAR GONZALEZ MONTERO
- 2018 Artículo: The Calzadilla Ophiolite (SW Iberia) and the Ediacaran fore-arc evolution of the African margin of Gondwana, *Gondwana Research*, 58, , 71-86
MARIA PILAR GONZALEZ MONTERO
- 2018 Artículo: Thermal decomposition of the CaO in traditional lime kilns. Applications in cultural heritage conservation, *Construction and Building Materials*, , 190, 349-362
ENCARNACIÓN MARÍA RUIZ AGUDO
- 2018 Artículo: Mineralogy and physicochemical features of Saharan dust wet deposited in the Iberian Peninsula during an extreme red rain event, *Atmospheric Chemistry and Physics*, 18, 13, 10089-10122
CARLOS MANUEL RODRÍGUEZ NAVARRO
KERSTIN ELERT
- 2018 Artículo: Effect of proteinaceous binder on pollution-induced sulfation of lime-based tempera paints, *Progress in Organic Coatings*, 123, , 99-110
ALEJANDRO BURGOS CARA
CAROLINA CARDELL FERNANDEZ
JUAN AGUSTIN HERRERA RUBIA
- 2018 Artículo: The Carbonation of Wollastonite: A Model Reaction to Test Natural and Biomimetic Catalysts for Enhanced CO₂ Sequestration, *Minerals*, 8, 5, 209-
AURELIA MARÍA IBÁÑEZ VELASCO
CARLOS MANUEL RODRÍGUEZ NAVARRO
ENCARNACIÓN MARÍA RUIZ AGUDO

- 2018 Artículo: Effects of seawater mixing on the mobility of trace elements in acid phosphogypsum leachates, *Marine Pollution Bulletin*, 127, , 695-703
CLAUDIO MARCHESI
- 2018 Artículo: Unraveling the impact of chronic exposure to metal pollution through human gallstones., *Science of the Total Environment*, 624, , 1031-1040
CLAUDIO MARCHESI
- 2018 Artículo: Stable isotope insights into the weathering processes of a phosphogypsum disposal area., *Water Research*, 140, , 344-353
CLAUDIO MARCHESI
- 2018 Artículo: Carbonation of mantle peridotite by CO₂-rich fluids: the formation of listvenites in the Advocate ophiolite complex, *Lithos*, 323, , 238-261
CLAUDIO MARCHESI
- 2018 Artículo: High-P metamorphism of rodingites during serpentinite dehydration (Cerro del Almirez, Southern Spain): Implications for the redox state in subduction zones, *Journal of Metamorphic Geology*, 36, , 1141-1173
CLAUDIO MARCHESI
MARIA TERESA GOMEZ PUGNAIRE
- 2018 Artículo: U-Pb ages of detrital zircons from the Internal Betics: a key to deciphering paleogeographic provenance and tectono-stratigraphic evolution, *Lithos*, 318-319, , 244-266
CRISTINA TALAVERA RODRÍGUEZ
MARIA TERESA GOMEZ PUGNAIRE
- 2018 Artículo: pH-Dependent Adsorption Release of Doxorubicin on MamCBiomimetic Magnetite Nanoparticles, *Langmuir*, 34, , 13713-13724
KERSTIN ELERT
- 2018 Artículo: Nanolimes: from synthesis to application, *Pure and Applied Chemistry*, 90, 3, 523-550
CARLOS MANUEL RODRÍGUEZ NAVARRO
ENCARNACIÓN MARÍA RUIZ AGUDO
- 2018 Artículo: Kinetic effect of carbonic anhydrase enzyme on the carbonation reaction of lime mortar, *International Journal of Architectural Heritage*, 12, 5, 779-789
CARLOS MANUEL RODRÍGUEZ NAVARRO
ENCARNACIÓN MARÍA RUIZ AGUDO
- 2018 Artículo: Genesis of ultra-high pressure garnet pyroxenites in orogenic peridotites and its bearing on the compositional heterogeneity of the Earth's mantle, *Geochimica et Cosmochimica Acta*, 232, , 303-328
CLAUDIO MARCHESI
- 2018 Artículo: Suspected meteorite fragments in marine sediments from East Antarctica, *Antarctic Science*, 30, , 307-321
CLAUDIO MARCHESI
- 2018 Artículo: Consolidation with ethyl silicate: how the amount of product alters the physical properties of the bricks and affects their durability, *Materiales de Construcción*, 68, e173, 1-11
GIUSEPPE CULTRONE
- 2018 Artículo: Textural and isotopic evidence for Ca-Mg carbonate pedogenesis, *Geochimica et Cosmochimica Acta*, 222, , 485-507
ANTONIO GARCIA CASCO
ANTONIO SÁNCHEZ NAVAS
- 2018 Artículo: High-P amphibolite-facies metamorphism in the Adrar¿Souttoug Metamafic Complex, Oulad Dlim Massif (West African Craton margin, Morocco), *Comptes Rendus - Geoscience*, 350, 6, 245-254
FERNANDO BEA BARREDO
JOSE FRANCISCO MOLINA PALMA
MARIA PILAR GONZALEZ MONTERO
- 2018 Artículo: Petrogenesis of Derraman Peralkaline granite (Oulad Dlim Massif, West African Craton Margin, Morocco): New constraints from zircon Hf and O isotopic compositions, *Comptes Rendus - Geoscience*, 350, 6, 236-244
FERNANDO BEA BARREDO
JOSE FRANCISCO MOLINA PALMA
MARIA PILAR GONZALEZ MONTERO
- 2018 Artículo: Constraints of mantle and crustal sources and interaction during orogenesis: a zircon SHRIMP U-Th-Pb and O isotope study of the 'calckaline' Brovales pluton, Ossa-Morena Zone, Iberian Variscan Belt, *Lithos*, , , -
FERNANDO BEA BARREDO
JOSE FRANCISCO MOLINA PALMA
MARIA PILAR GONZALEZ MONTERO
- 2018 Artículo: Micro- and nano-scale study of deformation induced mineral transformations in Mg-

- phyllosilicate-rich fault gouges from the Galera Fault Zone (Betic Cordillera, SE Spain), *The American Mineralogist*, 103, 10, 1604-1621
FERNANDO NIETO GARCÍA
- 2018 Artículo: Neo-crystallization of clay minerals in the Alhama de Murcia Fault (SE Spain): implications for fault mechanics, *Clay Minerals*, 53, 4, 00-00
FERNANDO NIETO GARCÍA
NICOLAS VELILLA SANCHEZ
- 2018 Artículo: ¿De qué está hecho este material? Una introducción al uso e interpretación de las técnicas básicas de caracterización de los minerales., *Enseñanza de las Ciencias de la Tierra*, 26, 3, 265-273
NICOLAS VELILLA SANCHEZ
- 2018 Artículo: Neoformación de minerales de la arcilla en la Falla de Alhama de Murcia: posibles implicaciones sísmicas, *Macla*, 23, , 1-2
FERNANDO NIETO GARCÍA
- 2018 Artículo: Nanostructure, osteopontin, and mechanical properties of calcitic avian eggshell, *Science Advances*, 4, 3, 1-13
ALEJANDRO RODRIGUEZ NAVARRO
- 2018 Artículo: Cuticle and pore plug properties in the table egg, *Poultry Science*, 97, 4, 1382-1390
ALEJANDRO RODRIGUEZ NAVARRO
- 2018 Artículo: Influence of physical activity on tibial bone material properties in laying hens, *Journal of Structural Biology*, 201, 1, 36-45
ALEJANDRO RODRIGUEZ NAVARRO
PEDRO DOMINGO ÁLVAREZ LLORET
- 2018 Artículo: Changes in avian cortical and medullary bone mineral composition and organization during acid-induced demineralization, *European Journal of Mineralogy*, , , -
ALEJANDRO RODRIGUEZ NAVARRO
NAZARET DOMÍNGUEZ GASCA
- 2018 Nota: Nuevo tratamiento que mejora la conservación de edificios históricos basado en la utilización de sus propias bacterias, *NoticiaSEM*, 116, , 12-13
CARLOS MANUEL RODRÍGUEZ NAVARRO

Contribuciones en congresos

- 2019 Poster en Congreso: Understanding Eruptive Transitions: Initial Results from the Echo Canyon Eruption, Ascension Island, South Atlantic, Volcanic and Magmatic Studies Group Annual Meeting 2019, 08/01/2019, St Andrews, Escocia, . CAMBRIDGE, . CAMBRIDGE, REINO UNIDO, Congreso
JANE HANNAH SCARROW
- 2018 Poster en Congreso: Consolidation assessment of two inorganic materials on the beige limestone used in Pasargadae (World Heritage Site in Iran), *Konsolidieren und Kommunizieren*, 25/01/2018, HILDESHEIM, ALEMANIA, Congreso
ANNA ARIZZI
GIUSEPPE CULTRONE
- 2018 Poster en Congreso: Influence of egg production on tibiae bone properties of laying hens, 45th European Calcified Tissue Society Congress, 25/05/2018, , - Valencia, Congreso
ALEJANDRO RODRIGUEZ NAVARRO
NAZARET DOMÍNGUEZ GASCA
- 2018 Ponencia en Congreso: Pigment-binder interaction in calcium sulfate-based painting materials, Congreso HERITAGE 2018: 6th International Conference on Heritage and Sustainable Development, 12/06/2018, Granada, Congreso
KERSTIN ELERT
CAROLINA CARDELL FERNANDEZ
JUAN AGUSTIN HERRERA RUBIA
- 2018 Poster en Congreso: Constraining the evolution of magmatism at Soufrière Hills Volcano, Montserrat, through accessory mineral geochronology and isotope and trace element geochemistry., EGU General Assembly 2018, 08/04/2018, Austria / Vienna, Congreso
JANE HANNAH SCARROW
- 2018 Poster en Congreso: Zircon and apatite in host andesites and mafic enclaves: unravelling mixed magmatism at Soufrière Hills Volcano, Montserrat, Caribbean., *Cities on Volcanoes 10*, 03/09/2018, Nápoles, Italia, Congreso
JANE HANNAH SCARROW
- 2018 Poster en Congreso: Tephra stratigraphy of a replenished, tapped and fractionated pyroclastic sequence: placing temporal constraints on magma chamber processes, Poás Volcano, Costa Rica., *Cities on Volcanoes 10*, 03/09/2018, Nápoles, Italia, Congreso
JANE HANNAH SCARROW
- 2018 Poster en Congreso: Youngest IBERSIMS SHRIMP U-Th-Pb zircon ages: dating an Ascension Island

Pleistocene pyroclastic deposit and associated plutonic enclaves to yield insights into magmatic evolution in a complex composite ocean island volcano., Cities on Volcanoes 10, 03/09/2018, Nápoles, Italia, Congreso

JANE HANNAH SCARROW

MARIA PILAR GONZALEZ MONTERO

- 2018 Poster en Congreso: Chronicles of an unexpected eruption: April 2017, Poás Volcano, Costa Rica., Cities on Volcanoes 10, 03/09/2018, Nápoles, Italia, Congreso

JANE HANNAH SCARROW

- 2018 Poster en Congreso: Eruption cyclicity of at La Soufrière, St Vincent over the past 5000 years - defining cycles and constraining activity., Cities on Volcanoes 10, 03/09/2018, Nápoles, Italia, Congreso

JANE HANNAH SCARROW

- 2018 Ponencia en Congreso: Bio-consolidation of the marble columns of the Lions Courtyard in the Alhambra, CONSTRUCTION PATHOLOGY, REHABILITATION TECHNOLOGY AND HERITAGE MANAGEMENT (7th REHABEND Congress), 15/05/2018, CÁCERES, SPAIN, Congreso

KERSTIN ELERT

CARLOS MANUEL RODRÍGUEZ NAVARRO

ANNA ARIZZI

EDUARDO M. SEBASTIÁN PARDO

- 2018 Poster en Congreso: Atmospheric particle matter-induced decay of paintings (semi)exposed to the urban air of Granada City (Spain), III International Conference on Atmospheric Dust, 29/05/2018, Bari/Italy, Congreso

JUAN AGUSTIN HERRERA RUBIA

CAROLINA CARDELL FERNANDEZ

KERSTIN ELERT

- 2018 Poster en Congreso: Chemical weathering of lime-based tempera paint dosimeters under urban air and accelerated SO₂ test, Euro Chemistry Conference, 11/06/2018, Rome, Italy, Congreso

CAROLINA CARDELL FERNANDEZ

JUAN AGUSTIN HERRERA RUBIA

ALEJANDRO BURGOS CARA

KERSTIN ELERT

- 2018 Ponencia en Congreso: Caracterización de los Pigmentos de la Pintura "La Pequeña Madonna de Foligno" Mediante la Técnica No Destructiva de Difracción de Rayos X, XVI Reunión del Grupo Regional Andaluz de la Sociedad Española de Química Analítica, 04/10/2018, Granada (España), Congreso

JOSÉ DANIEL MARTÍN RAMOS

- 2018 Poster en Congreso: 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 Almirez, southern Spain), EGU General Assembly 2018, 08/04/2018, Viena (Austria), Congreso

MARIA TERESA GOMEZ PUGNAIRE

CLAUDIO MARCHESI

- 2018 Poster en Congreso: Carbonation of Peridotite by CO₂-rich Fluids: Listvenite formation in the Advocate Ophiolite (Newfoundland), EGU General Assembly 2018, 08/04/2018, Viena (Austria), Congreso

CLAUDIO MARCHESI

- 2018 Poster en Congreso: The initiation of subduction in the Caribbean realm: The La Tinta mélange, eastern Cuba., XXI International Congress of the Carpathian Balkan Geological Association (CBGA), 10/09/2018, Universidad de Salzburgo (Austria), Congreso

IDAEL FRANCISCO BLANCO QUINTERO

ANTONIO GARCIA CASCO

CONCEPCION LAZARO CALISALVO

- 2018 Poster en Congreso: Neoformación de minerales de la arcilla en la Falla de Alhama de Murcia: posibles implicaciones sísmicas, XXXVII Reunión Científica de la Sociedad Española de Mineralogía, 13/07/2018, Madrid, Congreso

FERNANDO NIETO GARCÍA

- 2018 Poster en Congreso: Multi-scale characterization of bone mineral composition and structural organization, 31st European Crystallographic Meeting, 22/08/2018, Palacio de exhibiciones y congresos de Oviedo, Congreso

PEDRO DOMINGO ÁLVAREZ LLORET

NAZARET DOMÍNGUEZ GASCA

ALEJANDRO RODRIGUEZ NAVARRO