

Neus Otero

List of Publications by Year in descending order

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93
papers

4,708
citations

117571

34
h-index

102432

66
g-index

100
all docs

100
docs citations

100
times ranked

4730
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 1 | Fluctuations in Precambrian atmospheric oxygenation recorded by chromium isotopes. <i>Nature</i> , 2009, 461, 250-253. | 13.7 | 554 |
| 2 | Fertilizer Characterization: Isotopic Data (N, S, O, C, and Sr). <i>Environmental Science & Technology</i> , 2004, 38, 3254-3262. | 4.6 | 347 |
| 3 | Nitrate pollution of groundwater; all right, but nothing else?. <i>Science of the Total Environment</i> , 2016, 539, 241-251. | 3.9 | 205 |
| 4 | Fertiliser characterisation: Major, trace and rare earth elements. <i>Applied Geochemistry</i> , 2005, 20, 1473-1488. | 1.4 | 196 |
| 5 | The geographic distribution of strontium isotopes in Danish surface waters – A base for provenance studies in archaeology, hydrology and agriculture. <i>Applied Geochemistry</i> , 2011, 26, 326-340. | 1.4 | 183 |
| 6 | Denitrification of groundwater with pyrite and <i>Thiobacillus denitrificans</i> . <i>Chemical Geology</i> , 2010, 278, 80-91. | 1.4 | 160 |
| 7 | Onset of main Phanerozoic marine radiation sparked by emerging Mid Ordovician icehouse. <i>Scientific Reports</i> , 2016, 6, 18884. | 1.6 | 146 |
| 8 | Monitoring groundwater nitrate attenuation in a regional system coupling hydrogeology with multi-isotopic methods: The case of Plana de Vic (Osona, Spain). <i>Agriculture, Ecosystems and Environment</i> , 2009, 133, 103-113. | 2.5 | 136 |
| 9 | Enhanced denitrification in groundwater and sediments from a nitrate-contaminated aquifer after addition of pyrite. <i>Chemical Geology</i> , 2011, 287, 90-101. | 1.4 | 135 |
| 10 | Highly fractionated chromium isotopes in Mesoproterozoic-aged shales and atmospheric oxygen. <i>Nature Communications</i> , 2018, 9, 2871. | 5.8 | 130 |
| 11 | Tracing the dynamic life story of a Bronze Age Female. <i>Scientific Reports</i> , 2015, 5, 10431. | 1.6 | 112 |
| 12 | Controls of $\delta^{34}\text{S}$ and $\delta^{18}\text{O}$ in dissolved sulphate: Learning from a detailed survey in the Llobregat River (Spain). <i>Applied Geochemistry</i> , 2008, 23, 1166-1185. | 1.4 | 86 |
| 13 | Characterizing sources and natural attenuation of nitrate contamination in the Baix Ter aquifer system (NE Spain) using a multi-isotope approach. <i>Science of the Total Environment</i> , 2017, 580, 518-532. | 3.9 | 85 |
| 14 | Environmental isotopes (N, S, C, O, D) to determine natural attenuation processes in nitrate contaminated waters: Example of Osona (NE Spain). <i>Applied Geochemistry</i> , 2008, 23, 3597-3611. | 1.4 | 83 |
| 15 | Bioavailable $^{87}\text{Sr}/^{86}\text{Sr}$ in European soils: A baseline for provenancing studies. <i>Science of the Total Environment</i> , 2019, 672, 1033-1044. | 3.9 | 81 |
| 16 | Relative vs. absolute statistical analysis of compositions: A comparative study of surface waters of a Mediterranean river. <i>Water Research</i> , 2005, 39, 1404-1414. | 5.3 | 80 |
| 17 | Combining multi-isotopic and molecular source tracking methods to identify nitrate pollution sources in surface and groundwater. <i>Water Research</i> , 2021, 188, 116537. | 5.3 | 78 |
| 18 | Mesoproterozoic evolution of the Río de la Plata Craton in Uruguay: at the heart of Rodinia?. <i>International Journal of Earth Sciences</i> , 2011, 100, 273-288. | 0.9 | 77 |

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|----|---|-----|-----------|
| 19 | Oxidative elemental cycling under the low O ₂ Eoarchean atmosphere. <i>Scientific Reports</i> , 2016, 6, 21058. | 1.6 | 74 |
| 20 | Time constraints on the tectonic evolution of the Eastern Sierras Pampeanas (Central Argentina). <i>International Journal of Earth Sciences</i> , 2010, 99, 1199-1226. | 0.9 | 71 |
| 21 | The geographic distribution of Sr isotopes from surface waters and soil extracts over the island of Bornholm (Denmark) – A base for provenance studies in archaeology and agriculture. <i>Applied Geochemistry</i> , 2013, 38, 147-160. | 1.4 | 63 |
| 22 | A matter of months: High precision migration chronology of a Bronze Age female. <i>PLoS ONE</i> , 2017, 12, e0178834. | 1.1 | 60 |
| 23 | Application of chromium stable isotopes to the evaluation of Cr(VI) contamination in groundwater and rock leachates from central Euboea and the Assopos basin (Greece). <i>Catena</i> , 2014, 122, 216-228. | 2.2 | 54 |
| 24 | Sulphur isotopes as tracers of the influence of potash mining in groundwater salinisation in the Llobregat Basin (NE Spain). <i>Water Research</i> , 2002, 36, 3989-4000. | 5.3 | 53 |
| 25 | Agricultural and urban delivered nitrate pollution input to Mediterranean temporary freshwaters. <i>Agriculture, Ecosystems and Environment</i> , 2020, 294, 106859. | 2.5 | 53 |
| 26 | Paleo- and Neoproterozoic magmatic and tectonometamorphic evolution of the Isla Cristalina de Rivera (Nico Pérez Terrane, Uruguay). <i>International Journal of Earth Sciences</i> , 2012, 101, 1745-1762. | 0.9 | 46 |
| 27 | Environmentally available hexavalent chromium in soils and sediments impacted by dispersed fly ash in Sarigkiol basin (Northern Greece). <i>Environmental Pollution</i> , 2018, 235, 632-641. | 3.7 | 46 |
| 28 | East Greenland ice core dust record reveals timing of Greenland ice sheet advance and retreat. <i>Nature Communications</i> , 2019, 10, 4494. | 5.8 | 45 |
| 29 | Multi-isotope (carbon and chlorine) analysis for fingerprinting and site characterization at a fractured bedrock aquifer contaminated by chlorinated ethenes. <i>Science of the Total Environment</i> , 2014, 475, 61-70. | 3.9 | 44 |
| 30 | Mapping human mobility during the third and second millennia BC in present-day Denmark. <i>PLoS ONE</i> , 2019, 14, e0219850. | 1.1 | 44 |
| 31 | Using dual-isotope data to trace the origin and processes of dissolved sulphate: a case study in Calders stream (Llobregat basin, Spain). <i>Aquatic Geochemistry</i> , 2007, 13, 109-126. | 1.5 | 43 |
| 32 | Cl and C isotope analysis to assess the effectiveness of chlorinated ethene degradation by zero-valent iron: Evidence from dual element and product isotope values. <i>Applied Geochemistry</i> , 2013, 32, 175-183. | 1.4 | 42 |
| 33 | Multi-isotope proveniencing of human remains from a Bronze Age battlefield in the Tollense Valley in northeast Germany. <i>Archaeological and Anthropological Sciences</i> , 2019, 11, 33-49. | 0.7 | 40 |
| 34 | Title is missing!. <i>Water, Air, and Soil Pollution</i> , 2002, 136, 207-224. | 1.1 | 39 |
| 35 | Investigative monitoring of pesticide and nitrogen pollution sources in a complex multi-stressed catchment: The lower Llobregat River basin case study (Barcelona, Spain). <i>Science of the Total Environment</i> , 2021, 755, 142377. | 3.9 | 37 |
| 36 | A strontium isotope baseline of Cyprus. Assessing the use of soil leachates, plants, groundwater and surface water as proxies for the local range of bioavailable strontium isotope composition. <i>Science of the Total Environment</i> , 2020, 708, 134714. | 3.9 | 36 |

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|----|--|-----|-----------|
| 37 | A multi-isotopic approach to investigate the influence of land use on nitrate removal in a highly saline lake-aquifer system. <i>Science of the Total Environment</i> , 2018, 631-632, 649-659. | 3.9 | 35 |
| 38 | Geodynamic evolution of the Eastern Sierras Pampeanas (Central Argentina) based on geochemical, Sm- ¹⁴⁷ Nd, Pb- ²³⁸ Pb and SHRIMP data. <i>International Journal of Earth Sciences</i> , 2011, 100, 631-657. | 0.9 | 34 |
| 39 | Some Basic Concepts of Compositional Geometry. <i>Mathematical Geosciences</i> , 2005, 37, 673-680. | 0.9 | 30 |
| 40 | Carbon isotope fractionation of 1,1,1-trichloroethane during base-catalyzed persulfate treatment. <i>Journal of Hazardous Materials</i> , 2013, 260, 61-66. | 6.5 | 30 |
| 41 | C, Cl and H compound-specific isotope analysis to assess natural versus Fe(0) barrier-induced degradation of chlorinated ethenes at a contaminated site. <i>Journal of Hazardous Materials</i> , 2015, 299, 747-754. | 6.5 | 30 |
| 42 | Induced nitrate attenuation by glucose in groundwater: Flow-through experiment. <i>Chemical Geology</i> , 2014, 370, 19-28. | 1.4 | 29 |
| 43 | Monitoring induced denitrification during managed aquifer recharge in an infiltration pond. <i>Journal of Hydrology</i> , 2018, 561, 123-135. | 2.3 | 28 |
| 44 | Petrogenetic and geodynamic origin of the Neoproterozoic Dorset Lake Complex, Abitibi subprovince, Superior Province, Canada. <i>International Journal of Earth Sciences</i> , 2018, 107, 811-843. | 0.9 | 28 |
| 45 | Latent Compositional Factors in The Llobregat River Basin (Spain) Hydrogeochemistry. <i>Mathematical Geosciences</i> , 2005, 37, 681-702. | 0.9 | 27 |
| 46 | Isotope characterization of an in situ biodenitrification pilot-test in a fractured aquifer. <i>Applied Geochemistry</i> , 2013, 32, 153-163. | 1.4 | 27 |
| 47 | Carbon isotope fractionation of chlorinated ethenes during oxidation by Fe ²⁺ activated persulfate. <i>Science of the Total Environment</i> , 2012, 433, 318-322. | 3.9 | 26 |
| 48 | The role of Lower Cretaceous sediments in groundwater nitrate attenuation in central Spain: Column experiments. <i>Applied Geochemistry</i> , 2013, 32, 142-152. | 1.4 | 26 |
| 49 | Heterogeneity and incorporation of chromium isotopes in recent marine molluscs (<i>Mytilus</i>). <i>Geobiology</i> , 2019, 17, 417-435. | 1.1 | 25 |
| 50 | Nitrate as a tracer of groundwater flow in a fractured multilayered aquifer. <i>Hydrological Sciences Journal</i> , 2011, 56, 108-122. | 1.2 | 24 |
| 51 | Use of nitrogen and oxygen isotopes of dissolved nitrate to trace field-scale induced denitrification efficiency throughout an in-situ groundwater remediation strategy. <i>Science of the Total Environment</i> , 2019, 686, 709-718. | 3.9 | 24 |
| 52 | An overview of anorthosite-bearing layered intrusions in the Archaean craton of southern West Greenland and the Superior Province of Canada: implications for Archaean tectonics and the origin of megacrystic plagioclase. <i>Geodinamica Acta</i> , 2018, 30, 84-99. | 2.2 | 23 |
| 53 | Isotopic evidence of nitrate degradation by a zero-valent iron permeable reactive barrier: Batch experiments and a field scale study. <i>Journal of Hydrology</i> , 2019, 570, 69-79. | 2.3 | 23 |
| 54 | Do all roads lead to Rome? Exploring community trajectories in response to anthropogenic salinization and dilution of rivers. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2019, 374, 20180009. | 1.8 | 23 |

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|----|---|-----|-----------|
| 55 | Denitrification in a hypersaline lake aquifer system (PÃ©trola Basin, Central Spain): The role of recent organic matter and Cretaceous organic rich sediments. <i>Science of the Total Environment</i> , 2014, 497-498, 594-606. | 3.9 | 21 |
| 56 | Feasibility of two low-cost organic substrates for inducing denitrification in artificial recharge ponds: Batch and flow-through experiments. <i>Journal of Contaminant Hydrology</i> , 2017, 198, 48-58. | 1.6 | 21 |
| 57 | Biologically mediated release of endogenous N ₂ O and NO ₂ gases in a hydrothermal, hypoxic subterranean environment. <i>Science of the Total Environment</i> , 2020, 747, 141218. | 3.9 | 21 |
| 58 | Goldilocks at the dawn of complex life: mountains might have damaged Ediacaran Cambrian ecosystems and prompted an early Cambrian greenhouse world. <i>Scientific Reports</i> , 2021, 11, 20010. | 1.6 | 20 |
| 59 | Nitrate attenuation potential of hypersaline lake sediments in central Spain: Flow-through and batch experiments. <i>Journal of Contaminant Hydrology</i> , 2014, 164, 323-337. | 1.6 | 19 |
| 60 | The Use of Alkaline Hydrolysis As a Novel Strategy for Chloroform Remediation: The Feasibility of Using Construction Wastes and Evaluation of Carbon Isotopic Fractionation. <i>Environmental Science & Technology</i> , 2014, 48, 1869-1877. | 4.6 | 19 |
| 61 | Coral-based climate records from tropical South Atlantic: 2009/2010 ENSO event in C and O isotopes from <i>Porites</i> corals (Rocas Atoll, Brazil). <i>Anais Da Academia Brasileira De Ciencias</i> , 2015, 87, 1939-1957. | 0.3 | 19 |
| 62 | Main sources and processes affecting dissolved sulphates and nitrates in a small irrigated basin (Lerma Basin, Zaragoza, Spain): Isotopic characterization. <i>Agriculture, Ecosystems and Environment</i> , 2014, 195, 127-138. | 2.5 | 18 |
| 63 | Ediacaran Doushantuo-type biota discovered in Laurentia. <i>Communications Biology</i> , 2020, 3, 647. | 2.0 | 17 |
| 64 | Pulsed volcanism and rapid oceanic deoxygenation during Oceanic Anoxic Event 1a. <i>Geology</i> , 2021, 49, 1452-1456. | 2.0 | 17 |
| 65 | Nitrate and nitrite reduction by ferrous iron minerals in polluted groundwater: Isotopic characterization of batch experiments. <i>Chemical Geology</i> , 2020, 548, 119691. | 1.4 | 17 |
| 66 | Origin and evolution of groundwater collected by a desalination plant (Tordera, Spain): A multi-isotopic approach. <i>Journal of Hydrology</i> , 2011, 397, 37-46. | 2.3 | 15 |
| 67 | Tracing sulfate recycling in the hypersaline PÃ©trola Lake (SE Spain): A combined isotopic and microbiological approach. <i>Chemical Geology</i> , 2017, 473, 74-89. | 1.4 | 15 |
| 68 | Fractionation Behavior of Chromium Isotopes during the Sorption of Cr (VI) on Kaolin and its Implications for Using Black Shales as a Paleoredox Archive. <i>Geochemistry, Geophysics, Geosystems</i> , 2019, 20, 2290-2302. | 1.0 | 15 |
| 69 | Subtle Cr isotope signals track the variably anoxic Cryogenian interglacial period with voluminous manganese accumulation and decrease in biodiversity. <i>Scientific Reports</i> , 2019, 9, 15056. | 1.6 | 14 |
| 70 | Evaluating the potential use of a dairy industry residue to induce denitrification in polluted water bodies: A flow-through experiment. <i>Journal of Environmental Management</i> , 2019, 245, 86-94. | 3.8 | 14 |
| 71 | Testing Late Bronze Age mobility in southern Sweden in the light of a new multi-proxy strontium isotope baseline of Scania. <i>PLoS ONE</i> , 2021, 16, e0250279. | 1.1 | 14 |
| 72 | Tracing the role of endogenous carbon in denitrification using wine industry by-product as an external electron donor: Coupling isotopic tools with mathematical modeling. <i>Journal of Environmental Management</i> , 2018, 207, 105-115. | 3.8 | 13 |

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|----|--|-----|-----------|
| 73 | Fresh biochar application provokes a reduction of nitrate which is unexplained by conventional mechanisms. <i>Science of the Total Environment</i> , 2021, 755, 142430. | 3.9 | 13 |
| 74 | The geographic distribution of bioavailable strontium isotopes in Greece – A base for provenance studies in archaeology. <i>Science of the Total Environment</i> , 2021, 791, 148156. | 3.9 | 13 |
| 75 | Characterisation of the natural attenuation of chromium contamination in the presence of nitrate using isotopic methods. A case study from the Matanza-Riachuelo River basin, Argentina. <i>Science of the Total Environment</i> , 2020, 699, 134331. | 3.9 | 12 |
| 76 | Microbially induced chromium isotope fractionation and trace elements behavior in lower Cambrian microbialites from the Jaíba Member, Bambuí-Basin, Brazil. <i>Geobiology</i> , 2021, 19, 125-146. | 1.1 | 11 |
| 77 | Early Cambrian highly metalliferous black shale in South China: Cu and Zn isotopes and a short review of other non-traditional stable isotopes. <i>Mineralium Deposita</i> , 2022, 57, 1167-1187. | 1.7 | 11 |
| 78 | A back-arc origin for the Neoproterozoic megacrystic anorthosite-bearing Bird River Sill and the associated greenstone belt, Bird River subprovince, Western Superior Province, Manitoba, Canada. <i>International Journal of Earth Sciences</i> , 2019, 108, 2177-2207. | 0.9 | 10 |
| 79 | Impact of fertilization with pig slurry on the isotopic composition of nitrate retained in soil and leached to groundwater in agricultural areas. <i>Applied Geochemistry</i> , 2021, 125, 104832. | 1.4 | 10 |
| 80 | Geochemical and isotopic study of abiotic nitrite reduction coupled to biologically produced Fe(II) oxidation in marine environments. <i>Chemosphere</i> , 2020, 260, 127554. | 4.2 | 9 |
| 81 | Using a multi-disciplinary approach to characterize groundwater systems in arid and semi-arid environments: The case of Biskra and Batna regions (NE Algeria). <i>Science of the Total Environment</i> , 2021, 757, 143797. | 3.9 | 8 |
| 82 | The proper choice of proxies for relevant strontium isotope baselines used for provenance and mobility studies in glaciated terranes – Important messages from Denmark. <i>Science of the Total Environment</i> , 2022, 821, 153394. | 3.9 | 8 |
| 83 | Feasibility of using rural waste products to increase the denitrification efficiency in a surface flow constructed wetland. <i>Journal of Hydrology</i> , 2019, 578, 124035. | 2.3 | 7 |
| 84 | Influence of nitrogen-based fertilization on nitrates occurrence in groundwater of hilly vineyards. <i>Science of the Total Environment</i> , 2021, 766, 144512. | 3.9 | 7 |
| 85 | Chromium Isotope Systematics in Modern and Ancient Microbialites. <i>Minerals (Basel, Switzerland)</i> , 2020, 10, 928. | 0.8 | 5 |
| 86 | Cadmium isotopes in Bahamas platform carbonates: A base for reconstruction of past surface water bioproductivity and their link with chromium isotopes. <i>Science of the Total Environment</i> , 2022, 806, 150565. | 3.9 | 3 |
| 87 | Sulfur Recycling Processes in a Eutrophic Hypersaline System: Páñtola Lake (SE, Spain). <i>Procedia Earth and Planetary Science</i> , 2017, 17, 201-204. | 0.6 | 2 |
| 88 | Chemical and isotopic characterization of nitrate retained and leached from soil after manure fertilization-by lysimeter experiments. <i>E3S Web of Conferences</i> , 2019, 98, 12016. | 0.2 | 2 |
| 89 | Factors Controlling the Chromium Isotope Compositions in Podiform Chromitites. <i>Minerals (Basel, Switzerland)</i> , 2020, 10, 928. | 0.8 | 2 |
| 90 | Combining Isotopic and Compositional Data: A Discrimination of Regions Prone to Nitrate Pollution. , 0, , 302-317. | | 2 |

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|----|---|-----|-----------|
| 91 | Petrogenesis of the late Archean Pillow Basalts from the Chitradurga greenstone belt, Western Dharwar Craton (southern India). <i>Journal of Earth System Science</i> , 2022, 131, 1. | 0.6 | 1 |
| 92 | Evaluation of Two Carbon Sources for Inducing Denitrification: Batch and Column Experiments. <i>Procedia Earth and Planetary Science</i> , 2015, 13, 124-128. | 0.6 | 0 |
| 93 | Isotopic fractionation associated to nitrate attenuation by ferrous iron containing minerals. <i>E3S Web of Conferences</i> , 2019, 98, 12013. | 0.2 | 0 |