

Christian Hensen

List of Publications by Year in descending order

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80
papers

5,413
citations

76326

40
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85541

71
g-index

80
all docs

80
docs citations

80
times ranked

4621
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | Deep Sulfate Reduction Completely Mediated by Anaerobic Methane Oxidation in Sediments of the Upwelling Area off Namibia. <i>Geochimica Et Cosmochimica Acta</i> , 1998, 62, 455-464. | 3.9 | 286 |
| 2 | The Global Inventory of Methane Hydrate in Marine Sediments: A Theoretical Approach. <i>Energies</i> , 2012, 5, 2449-2498. | 3.1 | 240 |
| 3 | Early diagenesis of redox-sensitive trace metals in the Peru upwelling area – response to ENSO-related oxygen fluctuations in the water column. <i>Geochimica Et Cosmochimica Acta</i> , 2011, 75, 7257-7276. | 3.9 | 223 |
| 4 | Fluid expulsion related to mud extrusion off Costa Rica – A window to the subducting slab. <i>Geology</i> , 2004, 32, 201. | 4.4 | 221 |
| 5 | Control of sulfate pore-water profiles by sedimentary events and the significance of anaerobic oxidation of methane for the burial of sulfur in marine sediments. <i>Geochimica Et Cosmochimica Acta</i> , 2003, 67, 2631-2647. | 3.9 | 220 |
| 6 | Calculation of the stability and solubility of methane hydrate in seawater. <i>Chemical Geology</i> , 2005, 219, 37-52. | 3.3 | 210 |
| 7 | Microbial methane turnover at mud volcanoes of the Gulf of Cadiz. <i>Geochimica Et Cosmochimica Acta</i> , 2006, 70, 5336-5355. | 3.9 | 173 |
| 8 | Organic carbon content in surface sediments – defining regional provinces. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2004, 51, 2001-2026. | 1.4 | 171 |
| 9 | Sources of mud volcano fluids in the Gulf of Cadiz – indications for hydrothermal imprint. <i>Geochimica Et Cosmochimica Acta</i> , 2007, 71, 1232-1248. | 3.9 | 167 |
| 10 | Hydrogeological system of erosional convergent margins and its influence on tectonics and interplate seismogenesis. <i>Geochemistry, Geophysics, Geosystems</i> , 2008, 9, . | 2.5 | 159 |
| 11 | Estimation of the global inventory of methane hydrates in marine sediments using transfer functions. <i>Biogeosciences</i> , 2013, 10, 959-975. | 3.3 | 145 |
| 12 | Diagenetic Alteration of Magnetic Signals by Anaerobic Oxidation of Methane Related to a Change in Sedimentation Rate. <i>Geochimica Et Cosmochimica Acta</i> , 2005, 69, 4117-4126. | 3.9 | 144 |
| 13 | Benthic iron and phosphorus fluxes across the Peruvian oxygen minimum zone. <i>Limnology and Oceanography</i> , 2012, 57, 851-867. | 3.1 | 130 |
| 14 | Mud mounds: A polygenetic spectrum of fine-grained carbonate buildups. <i>Facies</i> , 1995, 32, 1-69. | 1.4 | 126 |
| 15 | A revised global estimate of dissolved iron fluxes from marine sediments. <i>Global Biogeochemical Cycles</i> , 2015, 29, 691-707. | 4.9 | 126 |
| 16 | Beyond the Black Sea paradigm: The sedimentary fingerprint of an open-marine iron shuttle. <i>Geochimica Et Cosmochimica Acta</i> , 2014, 127, 368-380. | 3.9 | 106 |
| 17 | The impact of ocean deoxygenation on iron release from continental margin sediments. <i>Nature Geoscience</i> , 2014, 7, 433-437. | 12.9 | 102 |
| 18 | Calcite dissolution driven by benthic mineralization in the deep-sea: in situ measurements of Ca ²⁺ , pH, pCO ₂ and O ₂ . <i>Geochimica Et Cosmochimica Acta</i> , 2001, 65, 2677-2690. | 3.9 | 92 |

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|----|---|-----|-----------|
| 19 | Benthic nitrogen cycling traversing the Peruvian oxygen minimum zone. <i>Geochimica Et Cosmochimica Acta</i> , 2011, 75, 6094-6111. | 3.9 | 90 |
| 20 | Nitrate-dependent iron oxidation limits iron transport in anoxic ocean regions. <i>Earth and Planetary Science Letters</i> , 2016, 454, 272-281. | 4.4 | 83 |
| 21 | Organic carbon production, mineralisation and preservation on the Peruvian margin. <i>Biogeosciences</i> , 2015, 12, 1537-1559. | 3.3 | 81 |
| 22 | In situ benthic fluxes from an intermittently active mud volcano at the Costa Rica convergent margin. <i>Earth and Planetary Science Letters</i> , 2005, 235, 79-95. | 4.4 | 78 |
| 23 | Methane hydrate accumulation in the Mound 11 mud volcano, Costa Rica forearc. <i>Marine Geology</i> , 2005, 216, 83-100. | 2.1 | 74 |
| 24 | Seabed methane emissions and the habitat of frenulate tubeworms on the Captain Arutyunov mud volcano (Gulf of Cadiz). <i>Marine Ecology - Progress Series</i> , 2009, 382, 69-86. | 1.9 | 70 |
| 25 | Isotopic evidence ($^{87}\text{Sr}/^{86}\text{Sr}$, ^7Li) for alteration of the oceanic crust at deep-rooted mud volcanoes in the Gulf of Cadiz, NE Atlantic Ocean. <i>Geochimica Et Cosmochimica Acta</i> , 2009, 73, 5444-5459. | 3.9 | 68 |
| 26 | On the isotope composition of reactive iron in marine sediments: Redox shuttle versus early diagenesis. <i>Chemical Geology</i> , 2014, 389, 48-59. | 3.3 | 65 |
| 27 | Methane formation at Costa Rica continental margin: constraints for gas hydrate inventories and cross-columnar fluid flow. <i>Earth and Planetary Science Letters</i> , 2005, 236, 41-60. | 4.4 | 63 |
| 28 | Lithium isotope geochemistry of marine pore waters: Insights from cold seep fluids. <i>Geochimica Et Cosmochimica Acta</i> , 2010, 74, 3459-3475. | 3.9 | 62 |
| 29 | Pore water geochemistry of eastern Mediterranean mud volcanoes: Implications for fluid transport and fluid origin. <i>Marine Geology</i> , 2006, 225, 191-208. | 2.1 | 61 |
| 30 | Quantification of diffusive benthic fluxes of nitrate, phosphate, and silicate in the southern Atlantic Ocean. <i>Global Biogeochemical Cycles</i> , 1998, 12, 193-210. | 4.9 | 60 |
| 31 | The role of benthic foraminifera in the benthic nitrogen cycle of the Peruvian oxygen minimum zone. <i>Biogeosciences</i> , 2013, 10, 4767-4783. | 3.3 | 59 |
| 32 | Rifting under steam: How rift magmatism triggers methane venting from sedimentary basins. <i>Geology</i> , 2016, 44, 767-770. | 4.4 | 59 |
| 33 | Reconstruction of primary productivity from the barium contents in surface sediments of the South Atlantic Ocean. <i>Marine Geology</i> , 2001, 177, 13-24. | 2.1 | 58 |
| 34 | Strike-slip faults mediate the rise of crustal-derived fluids and mud volcanism in the deep sea. <i>Geology</i> , 2015, 43, 339-342. | 4.4 | 56 |
| 35 | Oceanographic control of biogenic opal and diatoms in surface sediments of the Southwestern Atlantic. <i>Marine Geology</i> , 2002, 186, 263-280. | 2.1 | 51 |
| 36 | ENVIRONMENTAL INFLUENCES ON THE PORE DENSITY OF BOLIVINA SPISSA (CUSHMAN). <i>Journal of Foraminiferal Research</i> , 2011, 41, 22-32. | 0.5 | 47 |

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|----|--|------|-----------|
| 37 | Marine Transform Faults and Fracture Zones: A Joint Perspective Integrating Seismicity, Fluid Flow and Life. <i>Frontiers in Earth Science</i> , 2019, 7, . | 1.8 | 46 |
| 38 | EMP and SIMS studies on Mn/Ca and Fe/Ca systematics in benthic foraminifera from the Peruvian OMZ: a contribution to the identification of potential redox proxies and the impact of cleaning protocols. <i>Biogeosciences</i> , 2012, 9, 341-359. | 3.3 | 45 |
| 39 | Submarine weathering of silicate minerals and the extent of pore water freshening at active continental margins. <i>Geochimica Et Cosmochimica Acta</i> , 2013, 100, 200-216. | 3.9 | 45 |
| 40 | A comparison of benthic nutrient fluxes from deep-sea sediments off Namibia and Argentina. <i>Deep-Sea Research Part II: Topical Studies in Oceanography</i> , 2000, 47, 2029-2050. | 1.4 | 43 |
| 41 | Controls on authigenic carbonate precipitation at cold seeps along the convergent margin off Costa Rica. <i>Geochemistry, Geophysics, Geosystems</i> , 2010, 11, . | 2.5 | 43 |
| 42 | The impact of fluid advection on gas hydrate stability: Investigations at sites of methane seepage offshore Costa Rica. <i>Earth and Planetary Science Letters</i> , 2014, 401, 95-109. | 4.4 | 42 |
| 43 | Modeling of calcite dissolution by oxic respiration in supralysoclinal deep-sea sediments. <i>Marine Geology</i> , 2001, 177, 167-189. | 2.1 | 41 |
| 44 | Modeling of subsurface calcite dissolution, including the respiration and reoxidation processes of marine sediments in the region of equatorial upwelling off Gabon. <i>Geochimica Et Cosmochimica Acta</i> , 2002, 66, 4247-4259. | 3.9 | 39 |
| 45 | Volatile (H ₂ O, CO ₂ , Cl, S) budget of the Central American subduction zone. <i>International Journal of Earth Sciences</i> , 2014, 103, 2101-2127. | 1.8 | 38 |
| 46 | Origin of light volatile hydrocarbon gases in mud volcano fluids, Gulf of Cadiz – Evidence for multiple sources and transport mechanisms in active sedimentary wedges. <i>Chemical Geology</i> , 2009, 266, 350-363. | 3.3 | 37 |
| 47 | Fluid evolution and authigenic mineral paragenesis related to salt diapirism – The Mercator mud volcano in the Gulf of Cadiz. <i>Geochimica Et Cosmochimica Acta</i> , 2013, 106, 261-286. | 3.9 | 37 |
| 48 | Basin-scale reconstruction of natural gas hydrate system of the Green Canyon, Gulf of Mexico. <i>Geochemistry, Geophysics, Geosystems</i> , 2017, 18, 1959-1985. | 2.5 | 36 |
| 49 | Characteristics and Evolution of sill-driven off-axis hydrothermalism in Guaymas Basin – the Ringvent site. <i>Scientific Reports</i> , 2019, 9, 13847. | 3.3 | 33 |
| 50 | Simulation of early diagenetic processes in continental slope sediments off southwest Africa: the computer model CoTAM tested. <i>Marine Geology</i> , 1997, 144, 191-210. | 2.1 | 32 |
| 51 | Estimating the time of pockmark formation in the SW Xisha Uplift (South China Sea) using reaction-transport modeling. <i>Marine Geology</i> , 2015, 364, 21-31. | 2.1 | 32 |
| 52 | Fault zone controlled seafloor methane seepage in the rupture area of the 2010 Maule earthquake, Central Chile. <i>Geochemistry, Geophysics, Geosystems</i> , 2016, 17, 4802-4813. | 2.5 | 32 |
| 53 | Origin of salt-enriched pore fluids in the northern Gulf of Mexico. <i>Earth and Planetary Science Letters</i> , 2007, 259, 266-282. | 4.4 | 31 |
| 54 | Offshore Freshened Groundwater in Continental Margins. <i>Reviews of Geophysics</i> , 2021, 59, e2020RG000706. | 23.0 | 31 |

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|----|--|-----|-----------|
| 55 | Active mud volcanoes on the upper slope of the western Nile deep-sea fan—first results from the P362/2 cruise of R/V Poseidon. <i>Geo-Marine Letters</i> , 2010, 30, 169-186. | 1.1 | 30 |
| 56 | Computer simulation of deep sulfate reduction in sediments of the Amazon Fan. <i>International Journal of Earth Sciences</i> , 2000, 88, 641-654. | 1.8 | 29 |
| 57 | 3-D numerical modelling of methane hydrate accumulations using PetroMod. <i>Marine and Petroleum Geology</i> , 2016, 71, 288-295. | 3.3 | 29 |
| 58 | Shelf-to-basin iron shuttle in the Guaymas Basin, Gulf of California. <i>Geochimica Et Cosmochimica Acta</i> , 2019, 261, 76-92. | 3.9 | 28 |
| 59 | Benthic phosphorus cycling in the Peruvian oxygen minimum zone. <i>Biogeosciences</i> , 2016, 13, 1367-1386. | 3.3 | 27 |
| 60 | A transfer function for the prediction of gas hydrate inventories in marine sediments. <i>Biogeosciences</i> , 2010, 7, 2925-2941. | 3.3 | 26 |
| 61 | Impact of ambient conditions on the Si isotope fractionation in marine pore fluids during early diagenesis. <i>Biogeosciences</i> , 2020, 17, 1745-1763. | 3.3 | 26 |
| 62 | Gas hydrate decomposition recorded by authigenic barite at pockmark sites of the northern Congo Fan. <i>Geo-Marine Letters</i> , 2012, 32, 515-524. | 1.1 | 25 |
| 63 | On the formation of hydrothermal vents and cold seeps in the Guaymas Basin, Gulf of California. <i>Biogeosciences</i> , 2018, 15, 5715-5731. | 3.3 | 25 |
| 64 | Controls on the $^{129}\text{I}/\text{I}$ ratio of deep-seated marine interstitial fluids: $\delta^{129}\text{I}$ organic versus fissiogenic ^{129}I . <i>Earth and Planetary Science Letters</i> , 2010, 294, 27-36. | 4.4 | 24 |
| 65 | A combined geochemical and rock-magnetic investigation of a redox horizon at the last glacial/interglacial transition. <i>Physics and Chemistry of the Earth</i> , 2004, 29, 921-931. | 2.9 | 22 |
| 66 | Redox conditions and authigenic mineralization related to cold seeps in central Guaymas Basin, Gulf of California. <i>Marine and Petroleum Geology</i> , 2018, 95, 1-15. | 3.3 | 22 |
| 67 | The Guaymas Basin Subseafloor Sedimentary Archaeome Reflects Complex Environmental Histories. <i>IScience</i> , 2020, 23, 101459. | 4.1 | 22 |
| 68 | The geochemistry and origin of the hydrothermal water erupted at Lusi, Indonesia. <i>Marine and Petroleum Geology</i> , 2018, 90, 52-66. | 3.3 | 21 |
| 69 | Recycling and Burial of Biogenic Silica in an Open Margin Oxygen Minimum Zone. <i>Global Biogeochemical Cycles</i> , 2021, 35, e2020GB006583. | 4.9 | 21 |
| 70 | NW African climate variations during the last 47,000 years: Evidence from organic-walled dinoflagellate cysts. <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> , 2010, 291, 443-455. | 2.3 | 18 |
| 71 | Shallow Microbial Recycling of Deep-Sourced Carbon in Gulf of Cadiz Mud Volcanoes. <i>Geomicrobiology Journal</i> , 2008, 25, 283-295. | 2.0 | 15 |
| 72 | Formation of carbonate concretions in surface sediments of two mud mounds, offshore Costa Rica: a stable isotope study. <i>International Journal of Earth Sciences</i> , 2014, 103, 1831-1844. | 1.8 | 15 |

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|----|--|-----|-----------|
| 73 | Dissolved benthic phosphate, iron and carbon fluxes in the Mauritanian upwelling system and implications for ongoing deoxygenation. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 2019, 143, 70-84. | 1.4 | 15 |
| 74 | Microbial mediation of benthic biogenic silica dissolution. <i>Geo-Marine Letters</i> , 2010, 30, 477-492. | 1.1 | 14 |
| 75 | Formation and migration of hydrocarbons in deeply buried sediments of the Gulf of Cadiz convergent plate boundary - Insights from the hydrocarbon and helium isotope geochemistry of mud volcano fluids. <i>Marine Geology</i> , 2019, 410, 56-69. | 2.1 | 12 |
| 76 | Microbial activity and carbonate isotope signatures as a tool for identification of spatial differences in methane advection: a case study at the Pacific Costa Rican margin. <i>Biogeosciences</i> , 2014, 11, 507-523. | 3.3 | 10 |
| 77 | A late Miocene–early Pliocene Antarctic deepwater record of repeated iron reduction events. <i>Marine Geology</i> , 2009, 266, 198-211. | 2.1 | 9 |
| 78 | Genesis of mud volcano fluids in the Gulf of Cadiz using a novel basin-scale model approach. <i>Geochimica Et Cosmochimica Acta</i> , 2018, 243, 186-204. | 3.9 | 9 |
| 79 | Geochemical characterization of deep-sea sediments on the Azores Plateau – From diagenesis to hydrothermal activity. <i>Marine Geology</i> , 2020, 429, 106291. | 2.1 | 7 |
| 80 | Origin of High Mg and SO ₄ Fluids in Sediments of the Terceira Rift, Azores – Indications for Caminite Dissolution in a Waning Hydrothermal System. <i>Geochemistry, Geophysics, Geosystems</i> , 2019, 20, 6078-6094. | 2.5 | 3 |