# Munir Humayun

List of Publications by Year
in descending order



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|---|---|---|---|
| 120 papers | 7,275 citations | 46918 47 h-index | 58464 82 g-index |
| 128 all docs | 128 docs citations | 128 times ranked | 4773 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Passage of Heme-Iron Across the Envelope of Staphylococcus aureus. Science, 2003, 299, 906-909. | 6.0 | 544 |
| 2 | Iron-Source Preference of Staphylococcus aureus Infections. Science, 2004, 305, 1626-1628. | 6.0 | 398 |
| 3 | Potassium isotope cosmochemistry: Genetic implications of volatile element depletion. Geochimica Et Cosmochimica Acta, 1995, 59, 2131-2148. | 1.6 | 302 |
| 4 | Staphylococcus aureus IsdB Is a Hemoglobin Receptor Required for Heme Iron Utilization. Journal of Bacteriology, 2006, 188, 8421-8429. | 1.0 | 277 |
| 5 | Origin and age of the earliest Martian crust from meteorite NWAâ€‰7533. Nature, 2013, 503, 513-516. | 13.7 | 269 |
| 6 | Partitioning of Ru, Rh, Pd, Re, Ir, and Au between Cr-bearing spinel, olivine, pyroxene and silicate melts. Geochimica Et Cosmochimica Acta, 2004, 68, 867-880. | 1.6 | 256 |
| 7 | Geochemical Evidence for Excess Iron in the Mantle Beneath Hawaii. Science, 2004, 306, 91-94. | 6.0 | 206 |
| 8 | Platinum group element fractionation in a komatiitic basalt lava lake. Geochimica Et Cosmochimica Acta, 2001, 65, 2979-2993. | 1.6 | 187 |
| 9 | Platinum group element geochemistry of komatiites from the Alexo and Pyke Hill areas, Ontario, Canada 1 1Associate editor: R. J. Walker. Geochimica Et Cosmochimica Acta, 2004, 68, 1361-1383. | 1.6 | 166 |
| 10 | The Paris meteorite, the least altered CM chondrite so far. Geochimica Et Cosmochimica Acta, 2014, 124, 190-222. | 1.6 | 163 |
| 11 | Siderophile element constraints on the formation of metal in the metal-rich chondrites Bencubbin, Weatherford, and Gujba. Geochimica Et Cosmochimica Acta, 2002, 66, 647-660. | 1.6 | 157 |
| 12 | The applicability of the Chemical Index of Alteration as a paleoclimatic indicator: An example from the Permian of the ParanÃ¡ Basin, Brazil. Palaeogeography, Palaeoclimatology, Palaeoecology, 2010, 293, 175-183. | 1.0 | 153 |
| 13 | Experimentally determined mineral/melt partitioning of first-row transition elements (FRTE) during partial melting of peridotite at 3GPa. Geochimica Et Cosmochimica Acta, 2013, 104, 232-260. | 1.6 | 145 |
| 14 | Platinum group elements in Kostomuksha komatiites and basalts: implications for oceanic crust recycling and core-mantle interaction. Geochimica Et Cosmochimica Acta, 2000, 64, 4227-4242. | 1.6 | 138 |
| 15 | Precise determination of the isotopic composition of potassium: Application to terrestrial rocks and lunar soils. Geochimica Et Cosmochimica Acta, 1995, 59, 2115-2130. | 1.6 | 125 |
| 16 | 186Osâ€“187Os systematics of Gorgona Island komatiites: implications for early growth of the inner core. Earth and Planetary Science Letters, 2003, 206, 411-426. | 1.8 | 123 |
| 17 | Compositions of group IVB iron meteorites and their parent melt. Geochimica Et Cosmochimica Acta, 2005, 69, 4733-4744. | 1.6 | 112 |
| 18 | Origin of zoned metal grains in the QUE94411 chondrite. Geochimica Et Cosmochimica Acta, 2001, 65, 163-180. | 1.6 | 111 |

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|---|---|---|---|
| 19 | Partitioning of palladium at high pressures and temperatures during core formation. Nature Geoscience, 2008, 1, 321-323. | 5.4 | 111 |
| 20 | Trace Element Microanalysis in Iron Meteorites by Laser Ablation ICPMS. Analytical Chemistry, 1999, 71, 939-946. | 3.2 | 108 |
| 21 | The composition of the incipient partial melt of garnet peridotite at 3 GPa and the origin of OIB. Earth and Planetary Science Letters, 2011, 308, 380-390. | 1.8 | 104 |
| 22 | Elemental fractionation during LA-ICP-MS analysis of silicate glasses: implications for matrix-independent standardization. Journal of Analytical Atomic Spectrometry, 2009, 24, 1188. | 1.6 | 102 |
| 23 | Osmium Isotope Evidence for an s-Process Carrier in Primitive Chondrites. Science, 2005, 309, 1233-1236. | 6.0 | 93 |
| 24 | An experimental test of Henry's Law in solid metalâ€liquid metal systems with implications for iron meteorites. Meteoritics and Planetary Science, 2003, 38, 181-196. | 0.7 | 86 |
| 25 | 182W evidence for core-mantle interaction in the source of mantle plumes. Geochemical Perspectives Letters, 0, , 6-11. | 1.0 | 85 |
| 26 | Massâ€independent fractionation of mercury isotopes in the environment. Geochemistry, Geophysics, Geosystems, 2008, 9, . | 1.0 | 80 |
| 27 | Evidence for the early differentiation of the core from Ptâ€“Reâ€“Os isotope systematics of 2.8-Ga komatiites. Earth and Planetary Science Letters, 2005, 237, 118-134. | 1.8 | 74 |
| 28 | Highly siderophile element geochemistry of 187Os-enriched 2.8 Ga Kostomuksha komatiites, Baltic Shield. Geochimica Et Cosmochimica Acta, 2005, 69, 1607-1618. | 1.6 | 73 |
| 29 | The Fe/Mn ratio in MORB and OIB determined by ICP-MS. Geochimica Et Cosmochimica Acta, 2008, 72, 1660-1677. | 1.6 | 73 |
| 30 | The potential science and engineering value of samples delivered to Earth by Mars sample return. Meteoritics and Planetary Science, 2019, 54, S3. | 0.7 | 73 |
| 31 | The influence of carbon on trace element partitioning behavior. Geochimica Et Cosmochimica Acta, 2006, 70, 1322-1335. | 1.6 | 67 |
| 32 | Re-Os isotopic systematics and platinum group element composition of the Tagish Lake carbonaceous chondrite. Geochimica Et Cosmochimica Acta, 2005, 69, 1619-1631. | 1.6 | 64 |
| 33 | Pb-isotopic evidence for an early, enriched crust on Mars. Earth and Planetary Science Letters, 2015, 410, 34-41. | 1.8 | 64 |
| 34 | Coupled Wâ€“Osâ€“Pt isotope systematics in IVB iron meteorites: In situ neutron dosimetry for W isotope chronology. Earth and Planetary Science Letters, 2013, 361, 152-161. | 1.8 | 62 |
| 35 | Precise Ptâ€“Reâ€“Os isotope systematics of the mantle from 2.7-Ga komatiites. Earth and Planetary Science Letters, 2004, 224, 157-174. | 1.8 | 61 |
| 36 | Osâ€“Pbâ€“Nd isotope and highly siderophile and lithophile trace element systematics of komatiitic rocks from the Volotsk suite, SE Baltic Shield. Precambrian Research, 2007, 158, 119-137. | 1.2 | 60 |

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|---|---|---|---|
| 37 | The Genesis Solar-Wind Collector Materials. Space Science Reviews, 2003, 105, 535-560. | 3.7 | 57 |
| 38 | Chemical evolution of metal in refractory inclusions in CV3 chondrites. Geochimica Et Cosmochimica Acta, 2003, 67, 3119-3134. | 1.6 | 57 |
| 39 | The effect of H<sub>2</sub>O on partial melting of garnet peridotite at 3.5 GPa. Geochemistry, Geophysics, Geosystems, 2012, 13, . | 1.0 | 55 |
| 40 | Fe-liquid segregation in deforming planetesimals: Coupling Core-Forming compositions with transport phenomena. Earth and Planetary Science Letters, 2005, 239, 185-202. | 1.8 | 53 |
| 41 | Tungsten and hafnium distribution in calciumâ€“aluminum inclusions (CAIs) from Allende and Efremovka. Geochimica Et Cosmochimica Acta, 2007, 71, 4609-4627. | 1.6 | 53 |
| 42 | Siderophile and chalcophile element abundances in shergottites: Implications for Martian core formation. Meteoritics and Planetary Science, 2015, 50, 691-714. | 0.7 | 51 |
| 43 | Geochemical paleoredox indicators in organic-rich shales of the Irati Formation, Permian of the ParanÃ¡ Basin, southern Brazil. Brazilian Journal of Geology, 2016, 46, 377-393. | 0.3 | 51 |
| 44 | Highly siderophile elements in ureilites. Geochimica Et Cosmochimica Acta, 2008, 72, 4642-4659. | 1.6 | 49 |
| 45 | Major element analysis of natural silicates by laser ablation ICP-MS. Journal of Analytical Atomic Spectrometry, 2010, 25, 998. | 1.6 | 49 |
| 46 | Mass independent bias in W isotopes in MC-ICP-MS instruments. Journal of Analytical Atomic Spectrometry, 2011, 26, 1414. | 1.6 | 49 |
| 47 | Record of the ancient martian hydrosphere andÂatmosphere preserved in zircon from aÂmartianÂmeteorite. Nature Geoscience, 2014, 7, 638-642. | 5.4 | 49 |
| 48 | Chemical evidence for differentiation, evaporation and recondensation from silicate clasts in Gujba. Geochimica Et Cosmochimica Acta, 2016, 177, 254-274. | 1.6 | 49 |
| 49 | The Feâ€“C system at 5GPa and implications for Earthâ€™s core. Geochimica Et Cosmochimica Acta, 2008, 72, 4146-4158. | 1.6 | 48 |
| 50 | Formation of metal in the CH chondrites ALH 85085 and PCA 91467. Geochimica Et Cosmochimica Acta, 2004, 68, 3409-3422. | 1.6 | 46 |
| 51 | Potassium isotopic composition of Australasian tektites. Meteoritics and Planetary Science, 2004, 39, 1509-1516. | 0.7 | 45 |
| 52 | Highly siderophile element (<scp>HSE</scp>) abundances in the mantle of Mars are due to core formation at high pressure and temperature. Meteoritics and Planetary Science, 2015, 50, 604-631. | 0.7 | 45 |
| 53 | Regolith breccia Northwest Africa 7533: Mineralogy and petrology with implications for early Mars. Meteoritics and Planetary Science, 2017, 52, 89-124. | 0.7 | 43 |
| 54 | Petrology and geochemistry of chondrules and metal in NWA 5492 and GRO 95551: A new type of metal-rich chondrite. Geochimica Et Cosmochimica Acta, 2015, 167, 269-285. | 1.6 | 42 |

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| 55 | The formation of <scp>IIE</scp> iron meteorites investigated by the chondruleâ€bearing Mont Dieu meteorite. Meteoritics and Planetary Science, 2015, 50, 1173-1196. | 0.7 | 41 |
| 56 | High-precision osmium isotopes in enstatite and Rumuruti chondrites. Geochimica Et Cosmochimica Acta, 2011, 75, 4020-4036. | 1.6 | 40 |
| 57 | Chondrule cooling rates inferred from diffusive profiles in metal lumps from the Acfer 097 CR2 chondrite. Meteoritics and Planetary Science, 2012, 47, 1191-1208. | 0.7 | 40 |
| 58 | Discovery of davemaoite, CaSiO <sub>3</sub> -perovskite, as a mineral from the lower mantle. Science, 2021, 374, 891-894. | 6.0 | 39 |
| 59 | Diffusion of trace elements in FeNi metal: Application to zoned metal grains in chondrites. Geochimica Et Cosmochimica Acta, 2005, 69, 3145-3158. | 1.6 | 38 |
| 60 | Condensates from vapor made by impacts between metal-, silicate-rich bodies: Comparison with metal and chondrules in CB chondrites. Geochimica Et Cosmochimica Acta, 2015, 164, 236-261. | 1.6 | 38 |
| 61 | Elemental Systematics in MORB Glasses From the Midâ€Atlantic Ridge. Geochemistry, Geophysics, Geosystems, 2018, 19, 4236-4259. | 1.0 | 36 |
| 62 | Heavy<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si46.svg"><mml:mrow><mml:mi>Î´</mml:mi></mml:mrow></mml:math>57Fe in ocean island basalts: A non-unique signature of processes and source lithologies in the mantle. Geochimica Et Cosmochimica Acta, 2021, 292, 309-332. | 1.6 | 36 |
| 63 | Osmium isotope systematics of ureilites. Geochimica Et Cosmochimica Acta, 2007, 71, 2402-2413. | 1.6 | 35 |
| 64 | Clues to the origin of metal in Almahata Sitta EL and EH chondrites and implications for primitive E chondrite thermal histories. Geochimica Et Cosmochimica Acta, 2014, 140, 720-744. | 1.6 | 34 |
| 65 | Nickeliferous pyrite tracks pervasive hydrothermal alteration in Martian regolith breccia: A study in <scp>NWA</scp> 7533. Meteoritics and Planetary Science, 2015, 50, 2099-2120. | 0.7 | 32 |
| 66 | Processes Determining the Volatile Abundances of the Meteorites and Terrestrial Planets. , 2000, , 3-24. | | 32 |
| 67 | The duration of ordinary chondrite metamorphism inferred from tungsten microdistribution in metal. Earth and Planetary Science Letters, 2002, 198, 225-243. | 1.8 | 29 |
| 68 | Ancient carbonate sedimentary signature in the Hawaiian plume: Evidence from Mahukona volcano, Hawaii. Geochemistry, Geophysics, Geosystems, 2009, 10, . | 1.0 | 29 |
| 69 | Formation of metal in Grosvenor Mountains 95551 and comparison to ordinary chondrites. Geochimica Et Cosmochimica Acta, 2003, 67, 2481-2495. | 1.6 | 27 |
| 70 | Iron/manganese ratio and manganese content in shield lavas from Koâ€™olau Volcano, Hawaiâ€™i. Geochimica Et Cosmochimica Acta, 2007, 71, 4557-4569. | 1.6 | 27 |
| 71 | Compositions of unzoned and zoned metal in the CB<sub>b</sub>chondrites Hammadah al Hamra 237 and Queen Alexandra Range 94627. Meteoritics and Planetary Science, 2005, 40, 1131-1148. | 0.7 | 25 |
| 72 | Ancient impactor components preserved and reworked in martian regolith breccia Northwest Africa 7034. Geochimica Et Cosmochimica Acta, 2016, 191, 203-215. | 1.6 | 25 |

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| 73 | Effect of silicon on activity coefficients of siderophile elements (Au, Pd, Pt, P, Ga, Cu, Zn, and Pb) in liquid Fe: Roles of core formation, late sulfide matte, and late veneer in shaping terrestrial mantle geochemistry. Geochimica Et Cosmochimica Acta, 2018, 232, 101-123. | 1.6 | 25 |
| 74 | Experimental studies of metalâ€“silicate partitioning of Sb: Implications for the terrestrial and lunar mantles. Geochimica Et Cosmochimica Acta, 2009, 73, 1487-1504. | 1.6 | 24 |
| 75 | Elemental constraints on the amount of recycled crust in the generation of mid-oceanic ridge basalts (MORBs). Science Advances, 2020, 6, eaba2923. | 4.7 | 23 |
| 76 | Unique achondrite Northwest Africa 11042: Exploring the melting and breakup of the L chondrite parent body. Meteoritics and Planetary Science, 2020, 55, 622-648. | 0.7 | 22 |
| 77 | Kinetic model of carbonate dissolution in Martian meteorite ALH84001. Geochimica Et Cosmochimica Acta, 2003, 67, 3247-3256. | 1.6 | 20 |
| 78 | PALLADIUM ISOTOPIC EVIDENCE FOR NUCLEOSYNTHETIC AND COSMOGENIC ISOTOPE ANOMALIES IN IVB IRON METEORITES. Astrophysical Journal, 2015, 809, 180. | 1.6 | 20 |
| 79 | Chalcophile-siderophile element systematics of hydrothermal pyrite from martian regolith breccia NWA 7533. Geochimica Et Cosmochimica Acta, 2018, 241, 134-149. | 1.6 | 20 |
| 80 | A model for osmium isotopic evolution of metallic solids at the coreâ€•mantle boundary. Geochemistry, Geophysics, Geosystems, 2011, 12, . | 1.0 | 19 |
| 81 | Ion Implants as Matrixâ€Appropriate Calibrators for Geochemical Ion Probe Analyses. Geostandards and Geoanalytical Research, 2015, 39, 265-276. | 1.7 | 18 |
| 82 | Determination of the water content and D/H ratio of the martian mantle by unraveling degassing and crystallization effects in nakhlites. Geochimica Et Cosmochimica Acta, 2019, 266, 382-415. | 1.6 | 18 |
| 83 | Siderophile trace elements in metals and sulfides in enstatite achondrites record planetary differentiation in an enstatite chondritic parent body. Geochimica Et Cosmochimica Acta, 2012, 83, 272-291. | 1.6 | 17 |
| 84 | Molecular Signatures of Glacial Dissolved Organic Matter From Svalbard and Greenland. Global Biogeochemical Cycles, 2021, 35, e2020GB006709. | 1.9 | 17 |
| 85 | s-Process Os isotope enrichment in ureilites by planetary processing. Earth and Planetary Science Letters, 2015, 431, 110-118. | 1.8 | 15 |
| 86 | HIMU geochemical signature originating from the transition zone. Earth and Planetary Science Letters, 2020, 542, 116323. | 1.8 | 15 |
| 87 | Cosmogenic effects on Cu isotopes in IVB iron meteorites. Geochimica Et Cosmochimica Acta, 2016, 182, 145-154. | 1.6 | 14 |
| 88 | Northwest Africa 8694, a ferroan chassignite: Bridging the gap between nakhlites and chassignites. Geochimica Et Cosmochimica Acta, 2020, 282, 201-226. | 1.6 | 14 |
| 89 | Exsolution and shock microstructures of igneous pyroxene clasts in the Northwest Africa 7533 Martian meteorite. Meteoritics and Planetary Science, 2016, 51, 932-945. | 0.7 | 13 |
| 90 | s -Process Implications from Osmium Isotope Anomalies in Chondrites. Astrophysical Journal, 2007, 664, L59-L62. | 1.6 | 12 |

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| 91 | Trace element chemistry of Cumulus Ridge 04071 pallasite with implications for main group pallasites. Meteoritics and Planetary Science, 2009, 44, 1019-1032. | 0.7 | 12 |
| 92 | Formation of a small impact structure discovered within the Agoudal meteorite strewn field, Morocco. Meteoritics and Planetary Science, 2015, 50, 112-134. | 0.7 | 12 |
| 93 | Petrogenesis of high-CaO lavas from Mauna Kea, Hawaii: Constraints from trace element abundances. Geochimica Et Cosmochimica Acta, 2016, 185, 198-215. | 1.6 | 12 |
| 94 | Siâ€bearing metal and niningerite in Almahata Sitta fineâ€grained ureilites and insights into the diversity of metal on the ureilite parent body. Meteoritics and Planetary Science, 2014, 49, 1948-1977. | 0.7 | 11 |
| 95 | The effect of oxygen as a light element in metallic liquids on partitioning behavior. Meteoritics and Planetary Science, 2015, 50, 530-546. | 0.7 | 11 |
| 96 | The origin of iron silicides in ureilite meteorites. Chemie Der Erde, 2019, 79, 125539. | 0.8 | 11 |
| 97 | Carbonaceous chondrite meteorites experienced fluid flow within the past million years. Science, 2021, 371, 164-167. | 6.0 | 10 |
| 98 | Chemical study of group IIIF iron meteorites and the potentially related pallasites Zinder and Northwest Africa 1911. Geochimica Et Cosmochimica Acta, 2022, 323, 202-219. | 1.6 | 10 |
| 99 | Natural variations in the rhenium isotopic composition of meteorites. Meteoritics and Planetary Science, 2017, 52, 479-492. | 0.7 | 9 |
| 100 | Sierra Gorda 009: A new member of the metalâ€rich G chondrites grouplet. Meteoritics and Planetary Science, 2020, 55, . | 0.7 | 8 |
| 101 | The sulfur budget and sulfur isotopic composition of Martian regolith breccia NWA 7533. Meteoritics and Planetary Science, 2020, 55, 2097-2116. | 0.7 | 8 |
| 102 | A large meteoritic event over Antarctica ca. 430 ka ago inferred from chondritic spherules from the SÃ¸r Rondane Mountains. Science Advances, 2021, 7, . | 4.7 | 8 |
| 103 | WÃ¼stite in the fusion crust of Almahata Sitta sulfideâ€metal assemblage <scp>MS</scp>â€166: Evidence for oxygen in metallic melts. Meteoritics and Planetary Science, 2013, 48, 730-743. | 0.7 | 7 |
| 104 | Osmium isotopic homogeneity in the CK carbonaceous chondrites. Geochimica Et Cosmochimica Acta, 2017, 216, 8-27. | 1.6 | 7 |
| 105 | The Chondritic Assemblage. , 0, , 122-150. | | 6 |
| 106 | Petrogenesis of anomalous Queen Alexandra Range enstatite meteorites and their relation to enstatite chondrites, primitive enstatite achondrites, and aubrites. Meteoritics and Planetary Science, 2014, 49, 295-312. | 0.7 | 5 |
| 107 | Cooling rates of type I chondrules from Renazzo: Implications for chondrule formation. Meteoritics and Planetary Science, 2018, 53, 984-1005. | 0.7 | 5 |
| 108 | <sup>40</sup>Ar/<sup>39</sup>Ar ages of Northwest Africa 7034 and Northwest Africa 7533. Meteoritics and Planetary Science, 2021, 56, 515-545. | 0.7 | 5 |

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| 109 | A Unique Piece of Mars. Science, 2013, 339, 771-772. | 6.0 | 4 |
| 110 | Experimental insights into Stannern-trend eucrite petrogenesis. Meteoritics and Planetary Science, 2018, 53, 2122-2137. | 0.7 | 4 |
| 111 | Activity coefficients of siderophile elements in Fe-Si liquids at high pressure. Geochemical Perspectives Letters, 0, , 44-49. | 1.0 | 3 |
| 112 | Sierra Gorda 013: Unusual CBaâ€like chondrite. Meteoritics and Planetary Science, 2022, 57, 657-682. | 0.7 | 3 |
| 113 | Response to Comment on â€œDiscovery of davemaoite, CaSiO <sub>3</sub> -perovskite, as a mineral from the lower mantleâ€• Science, 2022, 376, eabo2029. | 6.0 | 3 |
| 114 | Depletion of Moderately Volatile Elements by Open-system Loss in the Early Solar Nebula. Astrophysical Journal, 2022, 932, 82. | 1.6 | 3 |
| 115 | Mantleâ€“melt partitioning of the highly siderophile elements: New results and application to Mars. Meteoritics and Planetary Science, 2020, 55, 2741-2757. | 0.7 | 2 |
| 116 | Gallium. Encyclopedia of Earth Sciences Series, 2018, , 526-530. | 0.1 | 2 |
| 117 | Comment on â€œAssessing the implications of K isotope cosmochemistry for evaporation in the preplanetary solar nebulaâ€•by E. Young. Earth and Planetary Science Letters, 2001, 192, 93-99. | 1.8 | 1 |
| 118 | Karavannoe: Mineralogy, trace element geochemistry, and origin of Eagle Station group pallasites. Meteoritics and Planetary Science, 2022, 57, 1158-1173. | 0.7 | 1 |
| 119 | Gallium. Encyclopedia of Earth Sciences Series, 2016, , 1-5. | 0.1 | 0 |
| 120 | Northwest Africa 6486: Record of large impact events and fluid alteration on the L chondrite asteroid. Meteoritics and Planetary Science, 2022, 57, 48-76. | 0.7 | 0 |