S Suresh Babu

List of Publications by Year
in descending order

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131 papers	5,656 citations	70961 41 h-index	95083 68 g-index
131 all docs	131 docs citations	131 times ranked	2668 citing authors

#	Article	IF	Citations
1	Black carbon aerosols over the Himalayas: direct and surface albedo forcing. Tellus, Series B: Chemical and Physical Meteorology, 2022, 65, 19738.	0.8	118
2	Implications of Siteâ€specific Mass Absorption Crossâ€section (MAC) to Black Carbon Observations at a Highâ€altitude Site in the Central Himalaya. Asia-Pacific Journal of Atmospheric Sciences, 2022, 58, 83-96.	1.3	10
3	Mesoscale variations of the chemical composition of submicron aerosols and its influence on the cloud condensation nuclei activation. Atmospheric Environment, 2022, 268, 118778.	1.9	5
4	Effects of Aerosolâ€“Induced Snow Albedo Feedback on the Seasonal Snowmelt Over the Himalayan Region. Water Resources Research, 2022, 58, .	1.7	8
5	Applicability of Machine Learning Model to Simulate Atmospheric COâ„ Variability. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-6.	2.7	6
6	Observations of particle number size distributions and new particle formation in six Indian locations. Atmospheric Chemistry and Physics, 2022, 22, 4491-4508.	1.9	6
7	On the net primary productivity over the Arabian Sea due to the reduction in mineral dust deposition. Scientific Reports, 2022, 12, 7761.	1.6	5
8	Role of Aerosol Physicochemical Properties on Aerosol Hygroscopicity and Cloud Condensation Nuclei Activity in a Tropical Coastal Atmosphere. ACS Earth and Space Chemistry, 2022, 6, 1527-1542.	1.2	4
9	New estimates of aerosol radiative effects over India from surface and satellite observations. Atmospheric Research, 2022, 276, 106254.	1.8	7
10	Deciphering the Role of Aerosolâ€Induced Snow Albedo Feedback on Dust Emission Over the Tibetan Plateau. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	1.2	3
11	Assessment of the vertical distribution of speciated aerosol absorption over South Asia using spaceborne LIDAR and ground-based observations. Remote Sensing of Environment, 2021, 253, 112164.	4.6	15
12	Effect of aerosol-induced snow darkening on the direct radiative effect of aerosols over the Himalayan region. Environmental Research Letters, 2021, 16, 064004.	2.2	17
13	Long-term changes in aerosol radiative properties over Ny-Ã…lesund: Results from Indian scientific expeditions to the Arctic. Polar Science, 2021, 30, 100700.	0.5	3
14	Carbonaceous Aerosols over Lachung in the Eastern Himalayas: Primary Sources and Secondary Formation of Organic Aerosols in a Remote High-Altitude Environment. ACS Earth and Space Chemistry, 2021, 5, 2493-2506.	1.2	9
15	Ozone chemistry and dynamics at a tropical coastal site impacted by the COVID-19 lockdown. Journal of Earth System Science, 2021, 130, 1.	0.6	9
16	Long term trend in aerosol direct radiative effects over Indian Ocean region from multi- satellite observations. Remote Sensing Letters, 2021, 12, 994-1003.	0.6	2
17	Multi-layer distribution of Black Carbon and inorganic ions in the snowpacks of western Himalayas and snow albedo forcing. Atmospheric Environment, 2021, 261, 118564.	1.9	9
18	Role of sulphate and carbonaceous aerosols on the radiative effects of aerosols over a remote high-altitude site Lachung in the Eastern Himalayas. Atmospheric Research, 2021, 263, 105799.	1.8	7

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19	Absorption characteristics of aerosols over the central Himalayas and its adjacent foothills. Atmospheric Research, 2020, 233, 104718.	1.8	9
20	Black carbon aerosol quantification over north-west Himalayas: Seasonal heterogeneity, source apportionment and radiative forcing. Environmental Pollution, 2020, 257, 113446.	3.7	41
21	Anthropogenic emissions from South Asia reverses the aerosol indirect effect over the northern Indian Ocean. Scientific Reports, 2020, 10, 18360.	1.6	25
22	Thinking about water and air to attain Sustainable Development Goals during times of COVID-19 Pandemic. Journal of Earth System Science, 2020, 129, 1.	0.6	42
23	Vertical distributions of the microscopic morphological characteristics and elemental composition of aerosols over India. Journal of Atmospheric Chemistry, 2020, 77, 117-140.	1.4	3
24	Recent trend in the global distribution of aerosol direct radiative forcing from satellite measurements. Atmospheric Science Letters, 2020, 21, e975.	0.8	16
25	Seasonal heterogeneity in aerosol optical properties over the subtropical humid region of northern India. Journal of Atmospheric and Solar-Terrestrial Physics, 2020, 201, 105246.	0.6	9
26	Particle number size distributions and new particle formation events over the northern Indian Ocean during continental outflow. Atmospheric Environment, 2020, 238, 117719.	1.9	22
27	Chemical and isotopic characteristics of PM10 over the Bay of Bengal: Effects of continental outflow on a marine environment. Science of the Total Environment, 2020, 726, 138438.	3.9	27
28	Modeling of aerosol induced snow albedo feedbacks over the Himalayas and its implications on regional climate. Climate Dynamics, 2020, 54, 4191-4210.	1.7	39
29	Cloud condensation nuclei properties of South Asian outflow over the northern Indian Ocean during winter. Atmospheric Chemistry and Physics, 2020, 20, 3135-3149.	1.9	26
30	Mineral dust characterization over the Himalayan cryosphere using space-borne lidar depolarization observations. , 2020, , .		0
31	Seasonal contrast in the vertical profiles of aerosol number concentrations and size distributions over India: Implications from RAWEX aircraft campaign. Journal of Earth System Science, 2019, 128, 1.	0.6	9
32	Black carbon physical and optical properties across northern India during pre-monsoon and monsoon seasons. Atmospheric Chemistry and Physics, 2019, 19, 13079-13096.	1.9	15
33	Physico-chemical and optical properties of aerosols at a background site (~4â€¯km a.s.l.) in the western Himalayas. Atmospheric Environment, 2019, 218, 117017.	1.9	23
34	Recent Regime Shifts in Mineral Dust Trends Over South Asia From Long-Term CALIPSO Observations. IEEE Transactions on Geoscience and Remote Sensing, 2019, 57, 4485-4489.	2.7	16
35	Impact of biomass burning on regional aerosol optical properties: A case study over northern India. Journal of Environmental Management, 2019, 244, 328-343.	3.8	50
36	Spatial gradient of aerosol mass concentrations and size distributions over southeastern Arabian Sea and equatorial Indian Ocean during ICARB-2018. Atmospheric Environment, 2019, 213, 727-738.	1.9	16

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37	Modeling of the Effects of Wintertime Aerosols on Boundary Layer Properties Over the Indo Gangetic Plain. Journal of Geophysical Research D: Atmospheres, 2019, 124, 4141-4157.	1.2	25
38	Decreasing Trend in Black Carbon Aerosols Over the Indian Region. Geophysical Research Letters, 2019, 46, 2903-2910.	1.5	45
39	Spatial and Altitudinal Contrast in Aerosol Radiative Properties across the Indo-Gangetic Plain. , 2019, , .		0
40	Scavenging ratio of black carbon in the Arctic and the Antarctic. Polar Science, 2018, 16, 10-22.	0.5	16
41	Role of anthropogenic emissions and meteorology on ultrafine particle bursts over a high altitude site in Western Ghats during pre-monsoon. Journal of Atmospheric and Solar-Terrestrial Physics, 2018, 179, 378-388.	0.6	10
42	Characterization of atmospheric Black Carbon over a semi-urban site of Southeast India: Local sources and long-range transport. Atmospheric Research, 2018, 213, 411-421.	1.8	33
43	Study of aerosol types and seasonal sources using wavelength dependent Ã…ngstrÃ¶m exponent over North-East India: Ground-based measurement and satellite remote sensing. Advances in Space Research, 2018, 62, 1049-1064.	1.2	8
44	CCN activation properties at a tropical hill station in Western Ghats during south-west summer monsoon: Vertical heterogeneity. Atmospheric Research, 2018, 214, 36-45.	1.8	17
45	Radiative effects of absorbing aerosols over northeastern India: Observations and model simulations. Journal of Geophysical Research D: Atmospheres, 2017, 122, 1132-1157.	1.2	44
46	Satelliteâ€retrieved direct radiative forcing of aerosols over Northâ€East India and adjoining areas: climatology and impact assessment. International Journal of Climatology, 2017, 37, 298-317.	1.5	12
47	CCN characteristics over a tropical coastal station during south-west monsoon: observations and closure studies. Atmospheric Environment, 2017, 164, 299-308.	1.9	28
48	Atmospheric aerosol radiative forcing over a semi-continental location Tripura in North-East India: Model results and ground observations. Science of the Total Environment, 2017, 580, 499-508.	3.9	15
49	Satellite-retrieved direct radiative forcing of aerosols over North-East India and adjoining areas: climatology and impact assessment. International Journal of Climatology, 2017, 37, 4756-4756.	1.5	6
50	Declining pre-monsoon dust loading over South Asia: Signature of a changing regional climate. Scientific Reports, 2017, 7, 16062.	1.6	86
51	Direct radiative effects of aerosols over South Asia from observations and modeling. Climate Dynamics, 2017, 49, 1411-1428.	1.7	33
52	Aerosol black carbon quantification in the central Indo-Gangetic Plain: Seasonal heterogeneity and source apportionment. Atmospheric Research, 2017, 185, 13-21.	1.8	81
53	Variability of Atmospheric Aerosols Over India. Springer Geology, 2017, , 221-248.	0.2	7
54	Vertical Structure of Aerosols and Mineral Dust Over the Bay of Bengal From Multisatellite Observations. Journal of Geophysical Research D: Atmospheres, 2017, 122, 12,845.	1.2	30

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55	Aerosol number size distributions over a coastal semi urban location: Seasonal changes and ultrafine particle bursts. Science of the Total Environment, 2016, 563-564, 351-365.	3.9	46
56	Long term (2007â€“2013) observations of columnar aerosol optical properties and retrieved size distributions over Anantapur, India using multi wavelength solar radiometer. Atmospheric Environment, 2016, 142, 238-250.	1.9	16
57	Largeâ€scale enhancement in aerosol absorption in the lower free troposphere over continental India during spring. Geophysical Research Letters, 2016, 43, 11,453.	1.5	19
58	Source apportionment of absorbing aerosols in the central Indo-Gangetic Plain. Proceedings of SPIE, 2016, , .	0.8	2
59	Seasonal variation of vertical distribution of aerosol single scattering albedo over Indian sub-continent: RAWEX aircraft observations. Atmospheric Environment, 2016, 125, 312-323.	1.9	38
60	Aerosol black carbon over Svalbard regions of Arctic. Polar Science, 2016, 10, 60-70.	0.5	28
61	Meridional gradients in aerosol vertical distribution over Indian Mainland: Observations and model simulations. Atmospheric Environment, 2016, 125, 337-345.	1.9	29
62	Aerosol characteristics in north-east India using ARFINET spectral optical depth measurements. Atmospheric Environment, 2016, 125, 461-473.	1.9	39
63	Optical properties and CCN activity of aerosols in a highâ€altitude Himalayan environment: Results from RAWEXâ€CVAX. Journal of Geophysical Research D: Atmospheres, 2015, 120, 2453-2469.	1.2	31
64	Sources of black carbon aerosols in South Asia and surrounding regions during the Integrated Campaign for Aerosols, Gases and Radiation Budget (ICARB). Atmospheric Chemistry and Physics, 2015, 15, 5415-5428.	1.9	48
65	Aerosol black carbon characteristics over a high-altitude Western Ghats location in Southern India. Annales Geophysicae, 2014, 32, 1361-1371.	0.6	32
66	The formation and growth of ultrafine particles in two contrasting environments: a case study. Annales Geophysicae, 2014, 32, 817-830.	0.6	24
67	Aerosol mass size distribution and black carbon over a high altitude location in Western Trans-Himalayas: Impact of a dust episode. Aeolian Research, 2014, 15, 161-168.	1.1	7
68	Rapid response of atmospheric <scp>BC</scp> to anthropogenic sources: observational evidence. Atmospheric Science Letters, 2014, 15, 166-171.	0.8	13
69	Physical and optical properties of aerosols in a free tropospheric environment: Results from long-term observations over western trans-Himalayas. Atmospheric Environment, 2014, 84, 262-274.	1.9	37
70	Aerosol black carbon characteristics over Central India: Temporal variation and its dependence on mixed layer height. Atmospheric Research, 2014, 147-148, 27-37.	1.8	60
71	Scattering and absorption characteristics of atmospheric aerosols over a semi-urban coastal environment. Journal of Atmospheric and Solar-Terrestrial Physics, 2014, 119, 211-222.	0.6	18
72	Implications of multiple scattering on the assessment of black carbon aerosol radiative forcing. Journal of Quantitative Spectroscopy and Radiative Transfer, 2014, 148, 134-140.	1.1	7

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73	Contrasting aerosol characteristics and radiative forcing over Hyderabad, India due to seasonal mesoscale and synopticâ€scale processes. Quarterly Journal of the Royal Meteorological Society, 2013, 139, 434-450.	1.0	40
74	Buildup of aerosols over the Indian Region. Geophysical Research Letters, 2013, 40, 1011-1014.	1.5	171
75	Seasonal variation in the spatial distribution of aerosol black carbon over Bay of Bengal: A synthesis of multi-campaign measurements. Atmospheric Environment, 2013, 64, 366-373.	1.9	13
76	Black carbon aerosols in a tropical semi-urban coastal environment: Effects of boundary layer dynamics and long range transport. Journal of Atmospheric and Solar-Terrestrial Physics, 2013, 104, 116-125.	0.6	46
77	Absorption characteristics of aerosols over the northwestern region of India: Distinct seasonal signatures of biomass burning aerosols and mineral dust. Atmospheric Environment, 2013, 73, 92-102.	1.9	38
78	Performance evaluation of chemistry transport models over India. Atmospheric Environment, 2013, 71, 210-225.	1.9	54
79	Trends in aerosol optical depth over Indian region: Potential causes and impact indicators. Journal of Geophysical Research D: Atmospheres, 2013, 118, 11,794.	1.2	195
80	Spatial Gradients in Aerosol-Induced Atmospheric Heating and Surface Dimming over the Oceanic Regions around India: Anthropogenic or Natural?. Journal of Climate, 2013, 26, 7611-7621.	1.2	14
81	Influence of continental outflow and ocean biogeochemistry on the distribution of fine and ultrafine particles in the marine atmospheric boundary layer over Arabian Sea and Bay of Bengal. Journal of Geophysical Research D: Atmospheres, 2013, 118, 7321-7331.	1.2	20
82	Multi-year investigations of aerosols from an island station, Port Blair, in the Bay of Bengal: climatology and source impacts. Annales Geophysicae, 2012, 30, 1113-1127.	0.6	14
83	Simulation of South Asian aerosols for regional climate studies. Journal of Geophysical Research, 2012, 117, .	3.3	100
84	Radiative properties of Bay of Bengal aerosols: Spatial distinctiveness and source impacts. Journal of Geophysical Research, 2012, 117, .	3.3	21
85	Free tropospheric black carbon aerosol measurements using high altitude balloon: Do BC layers build â€œtheir own homesâ€•up in the atmosphere?. Geophysical Research Letters, 2011, 38, n/a-n/a.	1.5	98
86	High altitude (â^¼4520 m amsl) measurements of black carbon aerosols over western trans-Himalayas: Seasonal heterogeneity and source apportionment. Journal of Geophysical Research, 2011, 116, n/a-n/a.	3.3	87
87	Characterization of aerosol black carbon over a tropical semi-arid region of Anantapur, India. Atmospheric Research, 2011, 100, 12-27.	1.8	67
88	Fine and ultrafine particles at a nearâ€“free tropospheric environment over the high-altitude station Hanle in the Trans-Himalaya: New particle formation and size distribution. Journal of Geophysical Research, 2011, 116, .	3.3	36
89	Multi-year investigations of near surface and columnar aerosols over Dibrugarh, northeastern location of India: Heterogeneity in source impacts. Atmospheric Environment, 2011, 45, 1714-1724.	1.9	58
90	Spatial heterogeneities in aerosol size distribution over Bay of Bengal during Winter-ICARB Experiment. Atmospheric Environment, 2011, 45, 4695-4706.	1.9	19

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91	Spatial distribution and vertical structure of the MABL aerosols over Bay of Bengal during winter: Results from W-ICARB experiment. Journal of Atmospheric and Solar-Terrestrial Physics, 2011, 73, 430-438.	0.6	14
92	Vertical and Horizontal Gradients in Aerosol Black Carbon and Its Mass Fraction to Composite Aerosols over the East Coast of Peninsular India from Aircraft Measurements. Advances in Meteorology, 2010, 2010, 1-7.	0.6	10
93	Black carbon aerosols over coastal Antarctica and its scavenging by snow during the Southern Hemispheric summer. Journal of Geophysical Research, 2010, 115, .	3.3	39
94	Surprising observation of large anthropogenic aerosol fraction over the â€œnearâ€pristineâ€•southern Bay of Bengal: Climate implications. Journal of Geophysical Research, 2010, 115, .	3.3	19
95	Optical and physical characteristics of Bay of Bengal aerosols during Wâ€ICARB: Spatial and vertical heterogeneities in the marine atmospheric boundary layer and in the vertical column. Journal of Geophysical Research, 2010, 115, .	3.3	53
96	Vertical distribution of aerosols over the east coast of India inferred from airborne LIDAR measurements. Annales Geophysicae, 2009, 27, 4157-4169.	0.6	37
97	Optical and Physical Properties of Atmospheric Aerosols over the Bay of Bengal during ICARB. Journals of the Atmospheric Sciences, 2009, 66, 2640-2658.	0.6	43
98	Spatial distribution of aerosol black carbon over India during pre-monsoon season. Atmospheric Environment, 2009, 43, 1071-1078.	1.9	166
99	Quasiâ€biennial oscillations in spectral aerosol optical depth. Atmospheric Science Letters, 2009, 10, 279-284.	0.8	4
100	Spatial and vertical heterogeneities in aerosol properties over oceanic regions around India: Implications for radiative forcing. Quarterly Journal of the Royal Meteorological Society, 2009, 135, 2131-2145.	1.0	116
101	Aerosol microphysics over a tropical coastal station inferred from the spectral dependence of Angstrom wavelength exponent and inversion of spectral aerosol optical depths. Journal of Atmospheric and Solar-Terrestrial Physics, 2009, 71, 1846-1857.	0.6	18
102	Climatology of columnar aerosol properties and the influence of synoptic conditions: Firstâ€time results from the northeastern region of India. Journal of Geophysical Research, 2009, 114, .	3.3	89
103	Improved assessment of aerosol absorption using OMIâ€MODIS joint retrieval. Journal of Geophysical Research, 2009, 114, .	3.3	48
104	Vertical structure and horizontal gradients of aerosol extinction coefficients over coastal India inferred from airborne lidar measurements during the Integrated Campaign for Aerosol, Gases and Radiation Budget (ICARB) field campaign. Journal of Geophysical Research, 2009, 114, .	3.3	49
105	Large scale modulations of spectral aerosol optical depths by atmospheric planetary waves. Geophysical Research Letters, 2009, 36, .	1.5	15
106	Integrated Campaign for Aerosols, gases and Radiation Budget (ICARB): An overview. Journal of Earth System Science, 2008, 117, 243-262.	0.6	178
107	Aircraft measurements of aerosol black carbon from a coastal location in the north-east part of peninsular India during ICARB. Journal of Earth System Science, 2008, 117, 263-271.	0.6	52
108	Characteristics of spectral aerosol optical depths over India during ICARB. Journal of Earth System Science, 2008, 117, 303-313.	0.6	55

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109	Size segregated aerosol mass concentration measurements over the Arabian Sea during ICARB. Journal of Earth System Science, 2008, 117, 315-323.	0.6	23
110	Influence of circulation parameters on the AOD variations over the Bay of Bengal during ICARB. Journal of Earth System Science, 2008, 117, 353-360.	0.6	14
111	Seasonal changes in aerosol characteristics over Arabian Sea and their consequence on aerosol short-wave radiative forcing: Results from ARMEX field campaign. Journal of Atmospheric and Solar-Terrestrial Physics, 2008, 70, 820-834.	0.6	26
112	Spatial distribution and spectral characteristics of aerosol single scattering albedo over the Bay of Bengal inferred from shipborne measurements. Geophysical Research Letters, 2008, 35, .	1.5	36
113	Climate implications of large warming by elevated aerosol over India. Geophysical Research Letters, 2008, 35, .	1.5	157
114	Aerosol characteristics in the marine atmospheric boundary layer over the Bay of Bengal and Arabian Sea during ICARB: Spatial distribution and latitudinal and longitudinal gradients. Journal of Geophysical Research, 2008, 113, .	3.3	67
115	Latitudinal distribution of aerosol black carbon and its mass fraction to composite aerosols over peninsular India during winter season. Geophysical Research Letters, 2007, 34, .	1.5	8
116	Dust absorption over the â€œGreat Indian Desertâ€•inferred using ground-based and satellite remote sensing. Journal of Geophysical Research, 2007, 112, .	3.3	98
117	Wintertime aerosol characteristics over the Indoâ€Gangetic Plain (IGP): Impacts of local boundary layer processes and longâ€•range transport. Journal of Geophysical Research, 2007, 112, .	3.3	287
118	Temporal heterogeneity in aerosol characteristics and the resulting radiative impact at a tropical coastal station â€“ Part 1: Microphysical and optical properties. Annales Geophysicae, 2007, 25, 2293-2308.	0.6	91
119	Aerosol black carbon over Bay of Bengal observed from an island location, Port Blair: Temporal features and long-range transport. Journal of Geophysical Research, 2006, 111, .	3.3	69
120	Aerosol Characteristics and Radiative Impacts over the Arabian Sea during the Intermonsoon Season: Results from ARMEX Field Campaign. Journals of the Atmospheric Sciences, 2005, 62, 192-206.	0.6	133
121	Large latitudinal gradients and temporal heterogeneity in aerosol black carbon and its mass mixing ratio over southern and northern oceans observed during a trans-continental cruise experiment. Geophysical Research Letters, 2005, 32, n/a-n/a.	1.5	33
122	Large aerosol optical depths observed at an urban location in southern India associated with rain-deficit summer monsoon season. Annales Geophysicae, 2004, 22, 3073-3077.	0.6	23
123	Aerosol black carbon over Arabian Sea during intermonsoon and summer monsoon seasons. Geophysical Research Letters, 2004, 31, n/a-n/a.	1.5	83
124	Radiative forcing by aerosols over the Bay of Bengal region derived from shipborne, island-based, and satellite (Moderate-Resolution Imaging Spectroradiometer) observations. Journal of Geophysical Research, 2004, 109, .	3.3	97
125	Altitude profiles of aerosol BC, derived from aircraft measurements over an inland urban location in India. Geophysical Research Letters, 2004, 31, .	1.5	91
126	Influence of Changes in the Prevailing Synoptic Conditions on the Response of Aerosol Characteristics to Land- and Sea-Breeze Circulations at a Coastal Station. Boundary-Layer Meteorology, 2003, 108, 145-161.	1.2	37

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127	Aerosol spectral optical depths over the Bay of Bengal: Role of transport. Geophysical Research Letters, 2003, 30, n/a-n/a.	1.5	82
128	Aerosol black carbon over a tropical coastal station in India. Geophysical Research Letters, 2002, 29, 13-1-13-4.	1.5	192
129	Aerosol radiative forcing due to enhanced black carbon at an urban site in India. Geophysical Research Letters, 2002, 29, 27-1-27-4.	1.5	219
130	A study of PM, PM10 and PM2.5 concentration at a tropical coastal station. Atmospheric Research, 2002, 61, 149-167.	1.8	70
131	Long-Term Trends in Black Carbon and Aerosol Optical Depth Over the Central Himalayas: Potential Causes and Implications. Frontiers in Earth Science, 0, 10, .	0.8	3