Long Xiao

List of Publications by Year
in descending order

126 papers	5,177 citations	101496 36 h-index	95218 68 g-index
130 all docs	130 docs citations	130 times ranked	3413 citing authors

#	Article	IF	Citations
1	Distinct mantle sources of low-Ti and high-Ti basalts from the western Emeishan large igneous province, SW China: implications for plumeâ€“lithosphere interaction. Earth and Planetary Science Letters, 2004, 228, 525-546.	1.8	439
2	Sedimentary evidence for a rapid, kilometer-scale crustal doming prior to the eruption of the Emeishan flood basalts. Earth and Planetary Science Letters, 2003, 213, 391-405.	1.8	430
3	Zircon Uâ€“Pb and Hf isotope constraints on crustal melting associated with the Emeishan mantle plume. Geochimica Et Cosmochimica Acta, 2008, 72, 3084-3104.	1.6	233
4	A young multilayered terrane of the northern Mare Imbrium revealed by Changâ€™E-3 mission. Science, 2015, 347, 1226-1229.	6.0	194
5	Origin of potassic (C-type) adakite magmas: Experimental and field constraints. Lithos, 2007, 95, 399-414.	0.6	185
6	Late Triassic granitoids of the eastern margin of the Tibetan Plateau: Geochronology, petrogenesis and implications for tectonic evolution. Lithos, 2007, 96, 436-452.	0.6	143
7	Rapid recovery of life at ground zero of the end-Cretaceous mass extinction. Nature, 2018, 558, 288-291.	13.7	123
8	Chemostratigraphic Correlation of Upper Permian Lavas from Yunnan Province, China: Extent of the Emeishan Large Igneous Province. International Geology Review, 2003, 45, 753-766.	1.1	114
9	Geological Characteristics of Von KÃ¡rmÃ¡n Crater, Northwestern South Poleâ€Aitken Basin: Chang'Eâ€4 Landing Site Region. Journal of Geophysical Research E: Planets, 2018, 123, 1684-1700.	1.5	114
10	Variety and complexity of the Late-Permian Emeishan basalts: Reappraisal of plumeâ€“lithosphere interaction processes. Lithos, 2010, 119, 91-107.	0.6	112
11	LA-ICP-MS Uâ€“Pb zircon geochronology of early Neoproterozoic mafic-intermediat intrusions from NW margin of the Yangtze Block, South China: Implication for tectonic evolution. Precambrian Research, 2007, 154, 221-235.	1.2	103
12	Major element, trace element, and Sr, Nd and Pb isotope studies of Cenozoic basalts from the South China Sea. Science in China Series D: Earth Sciences, 2008, 51, 550-566.	0.9	101
13	China's Chang'e-5 landing site: Geology, stratigraphy, and provenance of materials. Earth and Planetary Science Letters, 2021, 561, 116855.	1.8	99
14	Carboniferousâ€“Permian extensive magmatism in the West Junggar, Xinjiang, northwestern China: its geochemistry, geochronology, and petrogenesis. Lithos, 2014, 204, 125-143.	0.6	96
15	Geology and Scientific Significance of the RÃ¼mker Region in Northern Oceanus Procellarum: China's Chang'Eâ€5 Landing Region. Journal of Geophysical Research E: Planets, 2018, 123, 1407-1430.	1.5	92
16	Correlated compositional and mineralogical investigations at the Changâ€²e-3 landing site. Nature Communications, 2015, 6, 8880.	5.8	88
17	Young lunar mare basalts in the Chang'e-5 sample return region, northern Oceanus Procellarum. Earth and Planetary Science Letters, 2021, 555, 116702.	1.8	88
18	The Circum-Hellas Volcanic Province, Mars: Overview. Planetary and Space Science, 2009, 57, 895-916.	0.9	83

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19	Platinum-group element geochemistry of the continental flood basalts in the central Emeisihan Large Igneous Province, SW China. Chemical Geology, 2009, 262, 246-261.	1.4	83
20	Comparison of Dielectric Properties and Structure of Lunar Regolith at Chang'eâ€3 and Chang'eâ€4 Landing Sites Revealed by Groundâ€Penetrating Radar. Geophysical Research Letters, 2019, 46, 12783-12793.	1.5	77
21	A new terrestrial analogue site for Mars research: The Qaidam Basin, Tibetan Plateau (NW China). Earth-Science Reviews, 2017, 164, 84-101.	4.0	76
22	Possible correlation between a mantle plume and the evolution of Paleo-Tethys Jinshajiang Ocean: Evidence from a volcanic rifted margin in the Xiaru-Tuoding area, Yunnan, SW China. Lithos, 2008, 100, 112-126.	0.6	70
23	The Tertiary evolution of the prolific Nanpu Sag of Bohai Bay Basin, China: Constraints from volcanic records and tectono-stratigraphic sequences. Bulletin of the Geological Society of America, 2010, 122, 609-626.	1.6	70
24	Probing the hydrothermal system of the Chicxulub impact crater. Science Advances, 2020, 6, eaaz3053.	4.7	69
25	Tectonic affinity of the west Qinling terrane (central China): North China or Yangtze?. Tectonics, 2010, 29, n/a-n/a.	1.3	66
26	Extraordinary rocks from the peak ring of the Chicxulub impact crater: P-wave velocity, density, and porosity measurements from IODP/ICDP Expedition 364. Earth and Planetary Science Letters, 2018, 495, 1-11.	1.8	65
27	Geochemical and geochronological study of the Sanshui basin bimodal volcanic rock suite, China: Implications for basin dynamics in southeastern China. Journal of Asian Earth Sciences, 2009, 34, 178-189.	1.0	63
28	Identification of mantle plumes in the Emeishan Large Igneous Province. Episodes, 2007, 30, 32-42.	0.8	63
29	Ancient volcanism and its implication for thermal evolution of Mars. Earth and Planetary Science Letters, 2012, 323-324, 9-18.	1.8	61
30	The Mons RÃ¼mker volcanic complex of the Moon: A candidate landing site for the Chang'Eâ€5 mission. Journal of Geophysical Research E: Planets, 2017, 122, 1419-1442.	1.5	52
31	Geologic characteristics of the Changâ€™E-3 exploration region. Science China: Physics, Mechanics and Astronomy, 2014, 57, 569-576.	2.0	50
32	First look by the Yutu-2 rover at the deep subsurface structure at the lunar farside. Nature Communications, 2020, 11, 3426.	5.8	47
33	Ina pit crater on the Moon: Extrusion of waning-stage lava lake magmatic foam results in extremely young crater retention ages. Geology, 2017, 45, 455-458.	2.0	44
34	A mixed source for the Late Triassic GarzÃª-Daocheng granitic belt and its implications for the tectonic evolution of the Yidun arc belt, eastern Tibetan Plateau. Lithos, 2017, 288-289, 214-230.	0.6	44
35	Geochemical and Pb-Sr-Nd isotopic compositions of Indosinian granitoids from the Bikou block, northwest of the Yangtze plate: Constraints on petrogenesis, nature of deep crust and geodynamics. Science in China Series D: Earth Sciences, 2007, 50, 972-983.	0.9	40
36	The Jinxiâ€“Yelmand high-sulfidation epithermal gold deposit, Western Tianshan, Xinjiang Province, P.R. China. Ore Geology Reviews, 2005, 26, 17-37.	1.1	39

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37	Zircon Uâ€“Pb age and Srâ€“Ndâ€“Hf isotope geochemistry of the Ganluogou dioritic complex in the northern Triassic Yidun arc belt, Eastern Tibetan Plateau: Implications for the closure of the GarzÃª-Litang Ocean. Lithos, 2016, 248-251, 94-108.	0.6	38
38	Bulk compositions of the Changâ€™E-5 lunar soil: Insights into chemical homogeneity, exotic addition, and origin of landing site basalts. Geochimica Et Cosmochimica Acta, 2022, 335, 284-296.	1.6	38
39	Detailed petrogenesis of the unsampled Oceanus Procellarum: The case of the Chang'e-5 mare basalts. Icarus, 2022, 383, 115082.	1.1	37
40	Volcanism of the Nanpu Sag in the Bohai Bay Basin, Eastern China: Geochemistry, petrogenesis, and implications for tectonic setting. Journal of Asian Earth Sciences, 2010, 39, 173-191.	1.0	34
41	Overturn of Ilmeniteâ€Bearing Cumulates in a Rheologically Weak Lunar Mantle. Journal of Geophysical Research E: Planets, 2019, 124, 418-436.	1.5	34
42	The regolith properties of the Chang'e-5 landing region and the ground drilling experiments using lunar regolith simulants. Icarus, 2020, 337, 113508.	1.1	34
43	In situ optical measurements of Chang'E-3 landing site in Mare Imbrium: 2. Photometric properties of the regolith. Geophysical Research Letters, 2015, 42, 8312-8319.	1.5	33
44	Geologic characteristics of the Luna 17/Lunokhod 1 and Chang'E-3/Yutu landing sites, Northwest Mare Imbrium of the Moon. Planetary and Space Science, 2015, 117, 385-400.	0.9	33
45	Discovery of Reidite in the Lunar Meteorite Sayh al Uhaymir 169. Geophysical Research Letters, 2020, 47, e2020GL089583.	1.5	33
46	The role of substrate characteristics in producing anomalously young crater retention ages in volcanic deposits on the Moon: Morphology, topography, subresolution roughness, and mode of emplacement of the Sosigenes lunar irregular mare patch. Meteoritics and Planetary Science, 2018, 53, 778-812.	0.7	30
47	In situ optical measurements of Chang'Eâ€3 landing site in Mare Imbrium: 1. Mineral abundances inferred from spectral reflectance. Geophysical Research Letters, 2015, 42, 6945-6950.	1.5	28
48	Diverse rock types detected in the lunar South Poleâ€“Aitken Basin by the Changâ€™E-4 lunar mission. Geology, 2020, 48, 723-727.	2.0	28
49	Geologic features of Wudalianchi volcanic field, northeastern China: Implications for Martian volcanology. Planetary and Space Science, 2009, 57, 685-698.	0.9	27
50	Geochemistry, geochronology and petrogenesis of Maya Block granitoids and dykes from the Chicxulub Impact Crater, Gulf of MÃ©xico: Implications for the assembly of Pangea. Gondwana Research, 2020, 82, 128-150.	3.0	26
51	Geomorphologic exploration targets at the Zhurong landing site in the southern Utopia Planitia of Mars. Earth and Planetary Science Letters, 2021, 576, 117199.	1.8	26
52	Is the Underthrust Indian Lithosphere Split beneath the Tibetan Plateau?. International Geology Review, 2007, 49, 90-98.	1.1	25
53	Geochemical, geochronological, and Srâ€“Ndâ€“Hf isotopic constraints on the petrogenesis of the Qicun intrusive complex from the Handanâ€“Xingtai district: Implications for the mechanism of lithospheric thinning of the North China Craton. Ore Geology Reviews, 2014, 57, 363-374.	1.1	24
54	Copernicanâ€Aged (<200ÂMa) Impact Ejecta at the Chang'eâ€5 Landing Site: Statistical Evidence From Crater Morphology, Morphometry, and Degradation Models. Geophysical Research Letters, 2021, 48, e2021GL095341.	1.5	24

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55	China's touch on the Moon. Nature Geoscience, 2014, 7, 391-392.	5.4	23
56	Geological Features and Evolution of Yardangs in the Qaidam Basin, Tibetan Plateau (NW China): A Terrestrial Analogue for Mars. Journal of Geophysical Research E: Planets, 2018, 123, 2336-2364.	1.5	23
57	Anoxic chemical weathering under a reducing greenhouse on early Mars. Nature Astronomy, 2021, 5, 503-509.	4.2	23
58	Geological features and evolution history of Sinus Iridum, the Moon. Planetary and Space Science, 2014, 101, 37-52.	0.9	22
59	Cooling fractures in impact melt deposits on the Moon and Mercury: Implications for cooling solely by thermal radiation. Journal of Geophysical Research E: Planets, 2014, 119, 1496-1515.	1.5	22
60	U-Pb geochronology of detrital and inherited zircons in the Yidun arc belt, eastern Tibet Plateau and its tectonic implications. Journal of Earth Science (Wuhan, China), 2016, 27, 461-473.	1.1	22
61	The Long Sinuous Rille System in Northern Oceanus Procellarum and Its Relation to the Chang'eâ€5 Returned Samples. Geophysical Research Letters, 2021, 48, e2021GL092663.	1.5	22
62	Geological Characterization of the Ina Shield Volcano Summit Pit Crater on the Moon: Evidence for Extrusion of Waningâ€Stage Lava Lake Magmatic Foams and Anomalously Young Crater Retention Ages. Journal of Geophysical Research E: Planets, 2019, 124, 1100-1140.	1.5	21
63	The 3â€Ð geological model around Chang'Eâ€3 landing site based on lunar penetrating radar Channel 1 data. Geophysical Research Letters, 2017, 44, 6553-6561.	1.5	20
64	Ordovician radiolarians from the Yinisala ophiolitic mÃ©lange and their significance in western Junggar, Xinjiang, NW China. Science China Earth Sciences, 2015, 58, 776-783.	2.3	19
65	The water content and parental magma of the second chassignite <scp>NWA</scp> 2737: Clues from trapped melt inclusions in olivine. Meteoritics and Planetary Science, 2013, 48, 474-492.	0.7	18
66	New methodologies for precise building boundary extraction from LiDAR data and high resolution image. Sensor Review, 2013, 33, 157-165.	1.0	17
67	Petrography and geochemistry of the enriched basaltic shergottite Northwest Africa 2975. Meteoritics and Planetary Science, 2015, 50, 2024-2044.	0.7	17
68	The Polygonal Surface Structures in the Dalangtan Playa, Qaidam Basin, NW China: Controlling Factors for Their Formation and Implications for Analogous Martian Landforms. Journal of Geophysical Research E: Planets, 2018, 123, 1910-1933.	1.5	17
69	Oxalate formation under the hyperarid conditions of the Atacama desert as a mineral marker to provide clues to the source of organic carbon on Mars. Journal of Geophysical Research G: Biogeosciences, 2016, 121, 1593-1604.	1.3	16
70	Subsurface structures of large volcanic complexes on the nearside of the Moon: A view from GRAIL gravity. Icarus, 2014, 243, 48-57.	1.1	15
71	Bacterial and Archaeal Lipids Recovered from Subsurface Evaporites of Dalangtan Playa on the Tibetan Plateau and Their Astrobiological Implications. Astrobiology, 2017, 17, 1112-1122.	1.5	15
72	Weak Dust Activity Near a Geologically Young Surface Revealed by Chang'Eâ€3 Mission. Geophysical Research Letters, 2019, 46, 9405-9413.	1.5	15

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73	Shock impedance amplified impact deformation of zircon in granitic rocks from the Chicxulub impact crater. Earth and Planetary Science Letters, 2021, 575, 117201.	1.8	15
74	Isothermal section of Mgâ€“Ndâ€“Gd ternary system at 723 K. Transactions of Nonferrous Metals Society of China, 2014, 24, 777-782.	1.7	14
75	A mafic intrusion of â€œarc affinityâ€•in a post-orogenic extensional setting: A case study from Ganluogou gabbro in the northern Yidun Arc Belt, eastern Tibetan Plateau. Journal of Asian Earth Sciences, 2014, 94, 139-156.	1.0	14
76	Subsurface structures at the Changâ€™e-3 landing site: Interpretations from orbital and in-situ imagery data. Journal of Earth Science (Wuhan, China), 2016, 27, 707-715.	1.1	14
77	Ridge-like lava tube systems in southeast Tharsis, Mars. Geomorphology, 2017, 295, 831-839.	1.1	14
78	The Apollo peak-ring impact basin: Insights into the structure and evolution of the South Poleâ€“Aitken basin. Icarus, 2018, 306, 139-149.	1.1	14
79	Geological characteristics and model ages of Marius Hills on the Moon. Journal of Earth Science (Wuhan, China), 2011, 22, 601-609.	1.1	13
80	Petrogenesis and tectonic setting of the Queershan composite granitic pluton, eastern Tibetan Plateau: Constraints from geochronology, geochemistry and Hf isotope data. Science China Earth Sciences, 2014, 57, 2712-2725.	2.3	13
81	Diversity of basaltic lunar volcanism associated with buried impact structures: Implications for intrusive and extrusive events. Icarus, 2018, 307, 216-234.	1.1	13
82	U-Pb ages, Hf-O isotopes and trace elements of zircons from the ore-bearing and ore-barren adakitic rocks in the Handan-Xingtai district: Implications for petrogenesis and iron mineralization. Ore Geology Reviews, 2019, 104, 14-25.	1.1	13
83	Paleolakes in the Northwest Hellas Region, Mars: Implications for the Regional Geologic History and Paleoclimate. Journal of Geophysical Research E: Planets, 2020, 125, e2019JE006196.	1.5	13
84	Evidence of Carboniferous arc magmatism preserved in the Chicxulub impact structure. Bulletin of the Geological Society of America, 2022, 134, 241-260.	1.6	12
85	Coupling of basaltic magma evolution and lithospheric seismic structure in the Emeishan Large Igneous Province: MELTS modeling constraints. Lithos, 2010, 119, 61-74.	0.6	11
86	Identification and mapping of dikes with relatively primitive compositions in Thaumasia Planum on Mars: Implications for Tharsis volcanism and the opening of Valles Marineris. Geophysical Research Letters, 2012, 39, .	1.5	11
87	Knobby terrain on ancient volcanoes as an indication of dominant early explosive volcanism on Mars. Geophysical Research Letters, 2014, 41, 7019-7024.	1.5	11
88	Petrogenesis of the Kuangshancun and Hongshan intrusive complexes from the Handanâ€“Xingtai district: Implications for iron mineralization associated with Mesozoic magmatism in the North China Craton. Journal of Asian Earth Sciences, 2015, 113, 1162-1178.	1.0	11
89	Thermophysical Features of the RÃ¼mker Region in Northern Oceanus Procellarum: Insights from CE-2 CELMS Data. Remote Sensing, 2020, 12, 3272.	1.8	10
90	Expedition 364 methods. Proceedings of the International Ocean Discovery Program, 0, , .	0.0	10

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91	Permittivity Estimation of Subsurface Deposits in the Elysiumâ€“Utopia Region on Mars with MRO Shallow Radar Sounder Data. Astronomical Journal, 2020, 159, 156.	1.9	9
92	A Complex Paleoâ€Surface Revealed by the Yutuâ€2 Rover at the Lunar Farside. Geophysical Research Letters, 2021, 48, e2021GL095133.	1.5	9
93	Intermittent volcanic activity detected in the Von KÃ¡rmÃ¡n crater on the farside of the Moon. Earth and Planetary Science Letters, 2021, 569, 117062.	1.8	8
94	Dalangtan Playa (Qaidam Basin, NW China): Its microbial life and physicochemical characteristics and their astrobiological implications. PLoS ONE, 2018, 13, e0200949.	1.1	7
95	Oldest high-Ti basalt and magnesian crustal materials in feldspathic lunar meteorite Dhofar 1428. Geochimica Et Cosmochimica Acta, 2019, 266, 74-108.	1.6	7
96	A novel method for simultaneous analysis of particle size and mineralogy for Changâ€™E-5 lunar soil with minimum sample consumption. Science China Earth Sciences, 2022, 65, 1704-1714.	2.3	7
97	Changâ€™E-1 orbiter discovers a lunar nearside volcano: YUTU Mountain. Science Bulletin, 2009, 54, 4534-4536.	4.3	6
98	A new method for the semiquantitative determination of major rockâ€forming minerals with thermal infrared multispectral data: Application to THEMIS infrared data. Journal of Geophysical Research E: Planets, 2013, 118, 2146-2152.	1.5	6
99	The Changâ€™e-5 mission. , 2021, , 195-206.		6
100	A large long-lived central-vent volcano in the Gardner region: Implications for the volcanic history of the nearside of the Moon. Earth and Planetary Science Letters, 2020, 542, 116301.	1.8	6
101	Origin of pit chains in the floor of lunar Copernican craters. Science China: Physics, Mechanics and Astronomy, 2010, 53, 2145-2159.	2.0	5
102	Small graben in the southeastern ejecta blanket of the lunar Copernicus crater: Implications for recent shallow igneous intrusion on the Moon. Icarus, 2017, 298, 89-97.	1.1	5
103	Geomorphologic Characteristics of Polygonal Features on Chloride-Bearing Deposits on Mars: Implications for Martian Hydrology and Astrobiology. Journal of Earth Science (Wuhan, China), 2019, 30, 1049-1058.	1.1	5
104	Diverse Polygonal Patterned Grounds in the Northern Eridania Basin, Mars: Possible Origins and Implications. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006647.	1.5	5
105	Ocean resurge-induced impact melt dynamics on the peak-ring of the Chicxulub impact structure, Mexico. International Journal of Earth Sciences, 2021, 110, 2619-2636.	0.9	5
106	Geological features and magmatic activities history of sinus Iridum, the moon. Scientia Sinica: Physica, Mechanica Et Astronomica, 2013, 43, 1370-1386.	0.2	5
107	Ground-penetrating radar measurements of subsurface structures of lacustrine sediments in the Qaidam Basin (NW China): Possible implications for future in-situ radar experiments on Mars. Icarus, 2020, 338, 113576.	1.1	4
108	New Constraints on the Young Lava Flow Profile in the Northern Mare Imbrium. Geophysical Research Letters, 2020, 47, e2020GL088938.	1.5	4

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109	Significance and preliminary proposal for exploring the lunar lava tubes. Scientia Sinica: Physica, Mechanica Et Astronomica, 2018, 48, 119602.	0.2	4
110	Lunar Mare Fecunditatis: A Science-Rich Region and a Concept Mission for Long-Distance Exploration. Remote Sensing, 2022, 14, 1062.	1.8	4
111	Contrasting mineralogical-geochemical compositions of ore-bearing and ore-barren intrusive complexes in the Handan-Xingtai district, North China Craton: Implications for the iron mineralization. Lithos, 2019, 350-351, 105244.	0.6	3
112	An arid-semiarid climate during the Noachian-Hesperian transition in the Huygens region, Mars: Evidence from morphological studies of valley networks. Icarus, 2022, 373, 114789.	1.1	3
113	Ancient primary crust beneath the Aristarchus plateau: Constraints from gravity and topography data. Planetary and Space Science, 2013, 89, 188-193.	0.9	2
114	Compositional evolution of lava plains in the Syria-Thaumasia Block, Mars. Science China: Physics, Mechanics and Astronomy, 2014, 57, 994-1000.	2.0	2
115	A timescale of true polar wander of a quasi-fluid Earth: An effect of a low-viscosity layer inside a mantle. Physics of the Earth and Planetary Interiors, 2015, 240, 25-33.	0.7	2
116	Unique curvilinear ridges in the Qaidam Basin, NW China: Implications for martian fluvial ridges. Geomorphology, 2021, 372, 107472.	1.1	2
117	Understanding the textures of Apollo 11 highâ€Ti mare basalts: A quantitative petrographic approach. Meteoritics and Planetary Science, 2021, 56, 2211-2229.	0.7	2
118	Non-Impact Origin of the Baisha Structure in Hainan Province, China. Journal of Earth Science (Wuhan, China), 2020, 31, 385-392.	1.1	1
119	Shock-deformed zircon from the Chicxulub impact crater and implications for cratering process. Geology, 0, , .	2.0	1
120	Aeolian Landforms. Advances in Planetary Science, 2021, , 157-198.	0.0	0
121	Distribution characteristics of lipids from salt sediments in Qaidam Basin and their astrobiological significance. Science China Earth Sciences, 0, , 1.	2.3	0
122	New Evidence to Support Zephyria Tholus as a Composite Volcano on Mars. Remote Sensing, 2021, 13, 3891.	1.8	0
123	Ways to Study Mars. Advances in Planetary Science, 2021, , 1-33.	0.0	0
124	Valleys. Advances in Planetary Science, 2021, , 249-273.	0.0	0
125	Did the Hiawatha impact cause the Younger Dryas Event?. Chinese Science Bulletin, 2019, 64, 2270-2273.	0.4	0
126	High-Mg Dioritic Magmas Generated via Fractional Crystallization: Insights from Early Cretaceous Complex in the Handan-Xingtai District, North China Craton. Journal of Geology, 2022, 130, 45-62.	0.7	0