

Frank P Seelos

List of Publications by Year in descending order

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Version: 2024-02-01

52
papers

5,760
citations

109321

35
h-index

197818

49
g-index

53
all docs

53
docs citations

53
times ranked

3025
citing authors

#	ARTICLE	IF	CITATIONS
1	Compact Reconnaissance Imaging Spectrometer for Mars (CRISM) on Mars Reconnaissance Orbiter (MRO). <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	796
2	Hydrated silicate minerals on Mars observed by the Mars Reconnaissance Orbiter CRISM instrument. <i>Nature</i> , 2008, 454, 305-309.	27.8	630
3	A synthesis of Martian aqueous mineralogy after 1 Mars year of observations from the Mars Reconnaissance Orbiter. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	445
4	Revised CRISM spectral parameters and summary products based on the currently detected mineral diversity on Mars. <i>Journal of Geophysical Research E: Planets</i> , 2014, 119, 1403-1431.	3.6	280
5	Distribution of Mid-Latitude Ground Ice on Mars from New Impact Craters. <i>Science</i> , 2009, 325, 1674-1676.	12.6	279
6	Wavelength dependence of dust aerosol single scattering albedo as observed by the Compact Reconnaissance Imaging Spectrometer. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	196
7	A Closer Look at Water-Related Geologic Activity on Mars. <i>Science</i> , 2007, 317, 1706-1709.	12.6	185
8	Compact Reconnaissance Imaging Spectrometer for Mars investigation and data set from the Mars Reconnaissance Orbiter's primary science phase. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	178
9	Localization and Physical Properties Experiments Conducted by Spirit at Gusev Crater. <i>Science</i> , 2004, 305, 821-824.	12.6	166
10	An improvement to the volcano-scan algorithm for atmospheric correction of CRISM and OMEGA spectral data. <i>Planetary and Space Science</i> , 2009, 57, 809-815.	1.7	166
11	Evidence for the origin of layered deposits in Candor Chasma, Mars, from mineral composition and hydrologic modeling. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	159
12	Soils of Eagle Crater and Meridiani Planum at the Opportunity Rover Landing Site. <i>Science</i> , 2004, 306, 1723-1726.	12.6	153
13	Pancam Multispectral Imaging Results from the Spirit Rover at Gusev Crater. <i>Science</i> , 2004, 305, 800-806.	12.6	153
14	Columbus crater and other possible groundwater-fed paleolakes of Terra Sirenum, Mars. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	148
15	Diverse aqueous environments on ancient Mars revealed in the southern highlands. <i>Geology</i> , 2009, 37, 1043-1046.	4.4	142
16	Pancam Multispectral Imaging Results from the Opportunity Rover at Meridiani Planum. <i>Science</i> , 2004, 306, 1703-1709.	12.6	135
17	Prolonged magmatic activity on Mars inferred from the detection of felsic rocks. <i>Nature Geoscience</i> , 2013, 6, 1013-1017.	12.9	131
18	Localization and Physical Property Experiments Conducted by Opportunity at Meridiani Planum. <i>Science</i> , 2004, 306, 1730-1733.	12.6	130

#	ARTICLE	IF	CITATIONS
19	A hematite-bearing layer in Gale Crater, Mars: Mapping and implications for past aqueous conditions. <i>Geology</i> , 2013, 41, 1103-1106.	4.4	113
20	Mantled and exhumed terrains in Terra Meridiani, Mars. <i>Journal of Geophysical Research</i> , 2003, 108, .	3.3	92
21	Distribution and formation of chlorides and phyllosilicates in Terra Sirenum, Mars. <i>Geophysical Research Letters</i> , 2010, 37, .	4.0	91
22	Spectral and stratigraphic mapping of hydrated sulfate and phyllosilicate-bearing deposits in northern Sinus Meridiani, Mars. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	73
23	Mars Exploration Program 2007 Phoenix landing site selection and characteristics. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	64
24	Phyllosilicate and sulfate-hematite deposits within Miyamoto crater in southern Sinus Meridiani, Mars. <i>Geophysical Research Letters</i> , 2008, 35, .	4.0	63
25	Mineralogy of the MSL Curiosity landing site in Gale crater as observed by MRO/CRISM. <i>Geophysical Research Letters</i> , 2014, 41, 4880-4887.	4.0	59
26	Mineralogy and morphology of geologic units at Libya Montes, Mars: Ancient aqueously derived outcrops, mafic flows, fluvial features, and impacts. <i>Journal of Geophysical Research E: Planets</i> , 2013, 118, 487-513.	3.6	56
27	Combined remote mineralogical and elemental identification from rovers: Field and laboratory tests using reflectance and laser-induced breakdown spectroscopy. <i>Journal of Geophysical Research</i> , 2002, 107, FIDO 3-1-FIDO 3-14.	3.3	54
28	Calibration, Projection, and Final Image Products of MESSENGER's Mercury Dual Imaging System. <i>Space Science Reviews</i> , 2018, 214, 1.	8.1	53
29	Extensive MRO CRISM observations of 1.27 μm O_2 airglow in Mars polar night and their comparison to MRO MCS temperature profiles and LMD GCM simulations. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	51
30	Spectrophotometric properties of materials observed by Pancam on the Mars Exploration Rovers: 1. Spirit. <i>Journal of Geophysical Research</i> , 2006, 111, n/a-n/a.	3.3	49
31	MRO/CRISM Retrieval of Surface Lambert Albedos for Multispectral Mapping of Mars With DISORT-Based Radiative Transfer Modeling: Phase 1 Using Historical Climatology for Temperatures, Aerosol Optical Depths, and Atmospheric Pressures. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2008, 46, 4020-4040.	6.3	41
32	Phoenix and MRO coordinated atmospheric measurements. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	40
33	Challenges in the Search for Perchlorate and Other Hydrated Minerals With 2.1 μm Absorptions on Mars. <i>Geophysical Research Letters</i> , 2018, 45, 12180-12189.	4.0	40
34	Spectrophotometric properties of materials observed by Pancam on the Mars Exploration Rovers: 2. Opportunity. <i>Journal of Geophysical Research</i> , 2006, 111, n/a-n/a.	3.3	36
35	High spatial and temporal resolution sampling of Martian gas abundances from CRISM spectra. <i>Journal of Geophysical Research E: Planets</i> , 2013, 118, 89-104.	3.6	36
36	Composition of Amazonian volcanic materials in Tharsis and Elysium, Mars, from MRO/CRISM reflectance spectra. <i>Icarus</i> , 2019, 328, 274-286.	2.5	27

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37	Investigation of an Argyre basin ring structure using Mars Reconnaissance Orbiter/Compact Reconnaissance Imaging Spectrometer for Mars. <i>Journal of Geophysical Research</i> , 2010, 115, .	3.3	25
38	Compact Reconnaissance Imaging Spectrometer for Mars observations of northern Martian latitudes in summer. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	24
39	Image Simulation and Assessment of the Colour and Spatial Capabilities of the Colour and Stereo Surface Imaging System (CaSSIS) on the ExoMars Trace Gas Orbiter. <i>Space Science Reviews</i> , 2018, 214, 1.	8.1	24
40	Multiple mineral horizons in layered outcrops at Mawrth Vallis, Mars, signify changing geochemical environments on early Mars. <i>Icarus</i> , 2020, 341, 113634.	2.5	24
41	Mineralogy, morphology and stratigraphy of the light-toned interior layered deposits at Juventae Chasma. <i>Icarus</i> , 2015, 251, 315-331.	2.5	23
42	Geomorphologic and mineralogic characterization of the northern plains of Mars at the Phoenix Mission candidate landing sites. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	22
43	New insights into gully formation on Mars: Constraints from composition as seen by MRO/CRISM. <i>Geophysical Research Letters</i> , 2016, 43, 8893-8902.	4.0	21
44	Hyperspectral reflectance mapping of cinder cones at the summit of Mauna Kea and implications for equivalent observations on Mars. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	18
45	Characteristics, Origins, and Biosignature Preservation Potential of Carbonate-bearing Rocks Within and Outside of Jezero Crater. <i>Journal of Geophysical Research E: Planets</i> , 2021, 126, e2021JE006898.	3.6	16
46	Surface scattering properties at the Opportunity Mars rover's traverse region measured by CRISM. <i>Journal of Geophysical Research E: Planets</i> , 2013, 118, 1699-1717.	3.6	15
47	Landing Site Dispersion Analysis and Statistical Assessment for the Mars Phoenix Lander. , 2008, , .		9
48	MERLIN: Mars-Moon Exploration, Reconnaissance and Landed Investigation. <i>Acta Astronautica</i> , 2014, 93, 475-482.	3.2	8
49	Robust unmixing of hyperspectral images: Application to Mars. , 2011, , .		6
50	Anomalous Phyllosilicate-bearing Outcrops South of Coprates Chasma: A Study of Possible Emplacement Mechanisms. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2019JE006043.	3.6	5
51	An Efficient Uplink Pipeline for the MRO CRISM Instrument. , 2008, , .		1
52	Maximizing the Science and Resource Mapping Potential of Orbital VSWIR Spectral Measurements of Mars. , 2021, 53, .		0