Sharon L Vadas

List of Publications by Year
in descending order

66 papers	3,805 citations	37 h-index	61 g-index
68 all docs	68 docs citations	68 times ranked	1342 citing authors

94415

123420

#	Article	IF	Citations
1	Horizontal and vertical propagation and dissipation of gravity waves in the thermosphere from lower atmospheric and thermospheric sources. Journal of Geophysical Research, 2007, 112, n/a-n/a.	3.3	309
2	Thermospheric responses to gravity waves: Influences of increasing viscosity and thermal diffusivity. Journal of Geophysical Research, 2005, 110, .	3.3	226
3	Generation of largeâ€scale gravity waves and neutral winds in the thermosphere from the dissipation of convectively generated gravity waves. Journal of Geophysical Research, 2009, 114, .	3.3	197
4	Mechanism for the Generation of Secondary Waves in Wave Breaking Regions. Journals of the Atmospheric Sciences, 2003, 60, 194-214.	1.7	162
5	Mean and variable forcing of the middle atmosphere by gravity waves. Journal of Atmospheric and Solar-Terrestrial Physics, 2006, 68, 247-265.	1.6	145
6	Sources of the traveling ionospheric disturbances observed by the ionospheric TIDDBIT sounder near Wallops Island on 30 October 2007. Journal of Geophysical Research, 2010, 115, .	3.3	130
7	Secondary Gravity Waves in the Winter Mesosphere: Results From a Highâ€Resolution Global Circulation Model. Journal of Geophysical Research D: Atmospheres, 2018, 123, 2605-2627.	3.3	124
8	Gravity wave penetration into the thermosphere: sensitivity to solar cycle variations and mean winds. Annales Geophysicae, 2008, 26, 3841-3861.	1.6	110
9	Thermospheric responses to gravity waves arising from mesoscale convective complexes. Journal of Atmospheric and Solar-Terrestrial Physics, 2004, 66, 781-804.	1.6	108
10	Concentric gravity waves in the mesosphere generated by deep convective plumes in the lower atmosphere near Fort Collins, Colorado. Journal of Geophysical Research, 2009, 114, .	3.3	103
11	Gravity Wave Radiation and Mean Responses to Local Body Forces in the Atmosphere. Journals of the Atmospheric Sciences, 2001, 58, 2249-2279.	1.7	96
12	Influence of solar variability on gravity wave structure and dissipation in the thermosphere from tropospheric convection. Journal of Geophysical Research, 2006, 111, .	3.3	95
13	A model study of the effects of winds on concentric rings of gravity waves from a convective plume near Fort Collins on 11 May 2004. Journal of Geophysical Research, 2009, 114, .	3.3	87
14	The Excitation of Secondary Gravity Waves From Local Body Forces: Theory and Observation. Journal of Geophysical Research D: Atmospheres, 2018, 123, 9296-9325.	3.3	85
15	Convection: the likely source of the medium-scale gravity waves observed in the OH airglow layer near Brasilia, Brazil, during the SpreadFEx campaign. Annales Geophysicae, 2009, 27, 231-259.	1.6	79
16	Numerical modeling of the largeâ€scale neutral and plasma responses to the body forces created by the dissipation of gravity waves from 6 h of deep convection in Brazil. Journal of Geophysical Research: Space Physics, 2013, 118, 2593-2617.	2.4	72
17	Periodic spacing between consecutive equatorial plasma bubbles. Geophysical Research Letters, 2010, 37, .	4.0	68
18	An estimate of strong local body forcing and gravity wave radiation based on OH airglow and meteor radar observations. Geophysical Research Letters, 2002, 29, 71-1-71-4.	4.0	67

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19	Reconstruction of the gravity wave field from convective plumes via ray tracing. Annales Geophysicae, 2009, 27, 147-177.	1.6	65
20	The phases and amplitudes of gravity waves propagating and dissipating in the thermosphere: Theory. Journal of Geophysical Research, 2012, 117, .	3.3	65
21	Numerical Modeling of the Excitation, Propagation, and Dissipation of Primary and Secondary Gravity Waves during Wintertime at McMurdo Station in the Antarctic. Journal of Geophysical Research D: Atmospheres, 2018, 123, 9326-9369.	3.3	63
22	Characteristics of mesospheric gravity waves near the magnetic equator, Brazil, during the SpreadFEx campaign. Annales Geophysicae, 2009, 27, 461-472.	1.6	62
23	Compressible <i>f</i>â€plane solutions to body forces, heatings, and coolings, and application to the primary and secondary gravity waves generated by a deep convective plume. Journal of Geophysical Research: Space Physics, 2013, 118, 2377-2397.	2.4	61
24	Temporal evolution of neutral, thermospheric winds and plasma response using PFISR measurements of gravity waves. Journal of Atmospheric and Solar-Terrestrial Physics, 2009, 71, 744-770.	1.6	59
25	The importance of spatial variability in the generation of secondary gravity waves from local body forces. Geophysical Research Letters, 2002, 29, 45-1-45-4.	4.0	58
26	Inertiaâ€gravity waves in Antarctica: A case study using simultaneous lidar and radar measurements at McMurdo/Scott Base (77.8Â°S, 166.7Â°E). Journal of Geophysical Research D: Atmospheres, 2013, 118, 2794-2808.	3.3	58
27	Traveling ionospheric disturbances over the United States induced by gravity waves from the 2011 Tohoku tsunami and comparison with gravity wave dissipative theory. Journal of Geophysical Research: Space Physics, 2017, 122, 3430-3447.	2.4	58
28	Numerical Modeling of the Generation of Tertiary Gravity Waves in the Mesosphere and Thermosphere During Strong Mountain Wave Events Over the Southern Andes. Journal of Geophysical Research: Space Physics, 2019, 124, 7687-7718.	2.4	58
29	Mesospheric concentric gravity waves generated by multiple convective storms over the North American Great Plain. Journal of Geophysical Research, 2012, 117, .	3.3	55
30	Numerical modeling of the global changes to the thermosphere and ionosphere from the dissipation of gravity waves from deep convection. Journal of Geophysical Research: Space Physics, 2014, 119, 7762-7793.	2.4	54
31	Horizontal parameters of daytime thermospheric gravity waves and <i>E</i> region neutral winds over Puerto Rico. Journal of Geophysical Research: Space Physics, 2014, 119, 575-600.	2.4	49
32	Explicit Global Simulation of Gravity Waves in the Thermosphere. Journal of Geophysical Research: Space Physics, 2020, 125, e2020JA028034.	2.4	48
33	Influence of an inertiaâ€gravity wave on mesospheric dynamics: A case study with the Poker Flat Incoherent Scatter Radar. Journal of Geophysical Research, 2010, 115, .	3.3	46
34	Secondary Gravity Waves Generated by Breaking Mountain Waves Over Europe. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2019JD031662.	3.3	43
35	Periodic waves in the lower thermosphere observed by OI630â€¯nm airglow images. Annales Geophysicae, 2016, 34, 293-301.	1.6	42
36	Characteristics of the Quietâ€Time Hot Spot Gravity Waves Observed by GOCE Over the Southern Andes on 5 July 2010. Journal of Geophysical Research: Space Physics, 2019, 124, 7034-7061.	2.4	42

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37	Excitation of gravity waves by ocean surface wave packets: Upward propagation and reconstruction of the thermospheric gravity wave field. Journal of Geophysical Research: Space Physics, 2015, 120, 9748-9780.	2.4	41
38	Typhoon-induced concentric airglow structures in the mesopause region. Geophysical Research Letters, 2013, 40, 5983-5987.	4.0	40
39	Concentric Secondary Gravity Waves in the Thermosphere and Ionosphere Over the Continental United States on March 25â€"26, 2015 From Deep Convection. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA028275.	2.4	32
40	Numerical modeling study of the momentum deposition of small amplitude gravity waves in the thermosphere. Annales Geophysicae, 2013, 31, 1-14.	1.6	30
41	A Highâ€Resolution Wholeâ€Atmosphere Model With Resolved Gravity Waves and Specified Largeâ€Scale Dynamics in the Troposphere and Stratosphere. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	3.3	30
42	Dynamical Coupling Between Hurricane Matthew and the Middle to Upper Atmosphere via Gravity Waves. Journal of Geophysical Research: Space Physics, 2019, 124, 3589-3608.	2.4	29
43	Gravity wave coupling between the mesosphere and thermosphere over New Zealand. Journal of Geophysical Research: Space Physics, 2013, 118, 2694-2707.	2.4	28
44	Satelliteâ€based measurements of gravity waveâ€induced midlatitude plasma density perturbations. Journal of Geophysical Research, 2008, 113, .	3.3	27
45	The phases and amplitudes of gravity waves propagating and dissipating in the thermosphere: Application to measurements over Alaska. Journal of Geophysical Research, 2012, 117, .	3.3	27
46	Orographic Primary and Secondary Gravity Waves in the Middle Atmosphere From 16â€Year SABER Observations. Geophysical Research Letters, 2019, 46, 4512-4522.	4.0	27
47	Threeâ€dimensional nonlinear evolution of equatorial ionospheric bubbles with gravity wave seeding and tidal wind effects. Geophysical Research Letters, 2009, 36, .	4.0	26
48	Using PFISR measurements and gravity wave dissipative theory to determine the neutral, background thermospheric winds. Geophysical Research Letters, 2008, 35, .	4.0	22
49	A comprehensive rocket and radar study of midlatitude spread <i>F</i>. Journal of Geophysical Research, 2010, 115, .	3.3	22
50	First Direct Observational Evidence for Secondary Gravity Waves Generated by Mountain Waves Over the Andes. Geophysical Research Letters, 2020, 47, e2020GL088845.	4.0	22
51	Largeâ€scale ionospheric disturbances due to the dissipation of convectivelyâ€generated gravity waves over Brazil. Journal of Geophysical Research: Space Physics, 2013, 118, 2419-2427.	2.4	21
52	Statistical characterization of high-to-medium frequency mesoscale gravity waves by lidar-measured vertical winds and temperatures in the MLT. Journal of Atmospheric and Solar-Terrestrial Physics, 2017, 162, 3-15.	1.6	18
53	Neutral wind and density perturbations in the thermosphere created by gravity waves observed by the TIDDBIT sounder. Journal of Geophysical Research: Space Physics, 2017, 122, 6652-6678.	2.4	17
54	LAICE CubeSat mission for gravity wave studies. Advances in Space Research, 2015, 56, 1413-1427.	2.6	14

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55	Observations of Stratospheric Gravity Waves Over Europe on 12 January 2016: The Role of the Polar Night Jet. Journal of Geophysical Research D: Atmospheres, 2020, 125, e2020JD032893.	3.3	14
56	Neutral Winds and Densities at the Bottomside of the F Layer from Primary and Secondary Gravity Waves from Deep Convection. , 2011, , 131-139.		14
57	Seasonal Propagation Characteristics of MSTIDs Observed at High Latitudes Over Central Alaska Using the Poker Flat Incoherent Scatter Radar. Journal of Geophysical Research: Space Physics, 2018, 123, 5717-5737.	2.4	12
58	The spread F Experiment (SpreadFEx): Program overview and first results. Earth, Planets and Space, 2009, 61, 411-430.	2.5	11
59	Inertiaâ€gravity wave in the polar mesopause region inferred from successive images of a meteor train. Journal of Geophysical Research D: Atmospheres, 2013, 118, 3047-3052.	3.3	6
60	Thermospheric Traveling Atmospheric Disturbances in Austral Winter From GOCE and CHAMP. Journal of Geophysical Research: Space Physics, 2021, 126, e2021JA029335.	2.4	6
61	Correction to â€œThreeâ€dimensional nonlinear evolution of equatorial ionospheric bubbles with gravity wave seeding and tidal wind effectsâ€. Geophysical Research Letters, 2010, 37, .	4.0	4
62	Case Studies on Concentric Gravity Waves Source Using Lightning Flash Rate, Brightness Temperature and Backward Ray Tracing at SÃ£o Martinho da Serra (29.44Â°S, 53.82Â°W). Journal of Geophysical Research D: Atmospheres, 2021, 126, e2020JD034527.	3.3	4
63	3D Numerical Simulation of Secondary Wave Generation From Mountain Wave Breaking Over Europe. Journal of Geophysical Research D: Atmospheres, 2022, 127, .	3.3	4
64	Systematic Detection of Anomalous Ionospheric Perturbations Above LEOs From GNSS POD Data Including Possible Tsunami Signatures. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-23.	6.3	4
65	Atmospheric gravity waves excited by a fireball meteor: Observations and modeling. Journal of Geophysical Research D: Atmospheres, 2014, 119, 8583-8605.	3.3	2
66	Mesosphereâ€“Ionosphere Coupling Processes Observed in the F Layer Bottom-Side Oscillation. , 2011, , 163-175.		0