Rod A Heelis

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/5049640/publications.pdf

Version: 2024-02-01

238 papers 10,437 citations

52 h-index 45285 90 g-index

245 all docs

245 docs citations

times ranked

245

2727 citing authors

| # | Article | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | A model of the highâ€latitude ionospheric convection pattern. Journal of Geophysical Research, 1982, 87, 6339-6345. | 3.3 | 531 |
| 2 | The effects of interplanetary magnetic field orientation on dayside highâ€latitude ionospheric convection. Journal of Geophysical Research, 1984, 89, 2873-2880. | 3.3 | 284 |
| 3 | The theta aurora. Journal of Geophysical Research, 1986, 91, 3177-3224. | 3.3 | 270 |
| 4 | Rapid subauroral ion drifts observed by Atmosphere Explorer C. Geophysical Research Letters, 1979, 6, 657-660. | 1.5 | 263 |
| 5 | A proposed production model of rapid subauroral ion drifts and their relationship to substorm evolution. Journal of Geophysical Research, 1993, 98, 6069-6078. | 3.3 | 222 |
| 6 | IMF <i>B_y</i> â€dependent plasma flow and Birkeland currents in the dayside magnetosphere: 1. Dynamics Explorer observations. Journal of Geophysical Research, 1985, 90, 1577-1593. | 3.3 | 217 |
| 7 | The ionospheric signatures of rapid subauroral ion drifts. Journal of Geophysical Research, 1991, 96, 5785-5792. | 3.3 | 217 |
| 8 | Ion convection velocity reversals in the dayside cleft. Journal of Geophysical Research, 1976, 81, 3803-3809. | 3.3 | 203 |
| 9 | Theoretical study of the low- and midlatitude ionospheric electron density enhancement during the October 2003 superstorm: Relative importance of the neutral wind and the electric field. Journal of Geophysical Research, 2005, 110, . | 3.3 | 185 |
| 10 | Ion convection and the formation of the midâ€latitude <i>F</i> region ionization trough. Journal of Geophysical Research, 1978, 83, 4255-4264. | 3.3 | 183 |
| 11 | Global equatorial ionospheric vertical plasma drifts measured by the AE-E satellite. Journal of Geophysical Research, 1995, 100, 5769. | 3.3 | 183 |
| 12 | Global distribution of density irregularities in the equatorial ionosphere. Journal of Geophysical Research, 1998, 103, 407-417. | 3.3 | 177 |
| 13 | Coupling of microprocesses and macroprocesses due to velocity shear: An application to the low-altitude ionosphere. Journal of Geophysical Research, 1994, 99, 8873. | 3.3 | 172 |
| 14 | lonâ€neutral coupling in the highâ€latitude <i>F</i> region: Evaluation of ion heating terms from Dynamics Explorer 2. Journal of Geophysical Research, 1984, 89, 7495-7508. | 3.3 | 154 |
| 15 | The Ionospheric Connection Explorer Mission: Mission Goals and Design. Space Science Reviews, 2018, 214, 1. | 3.7 | 152 |
| 16 | Plasma injection and transport in the midâ€altitude polar cusp. Geophysical Research Letters, 1982, 9, 921-924. | 1.5 | 147 |
| 17 | Modeling polar cap <i>F</i> à€region patches using time varying convection. Geophysical Research Letters, 1993, 20, 1783-1786. | 1.5 | 122 |
| 18 | Behavior of the O+/H+ transition height during the extreme solar minimum of 2008. Geophysical Research Letters, 2009, 36, . | 1.5 | 121 |

| # | Article | IF | Citations |
|----|---|-----|-----------|
| 19 | Origin of density enhancements in the winter polar cap ionosphere. Radio Science, 1988, 23, 513-519. | 0.8 | 115 |
| 20 | Longitudinal variations in the equatorial vertical drift in the topside ionosphere. Journal of Geophysical Research, 2007, 112 , n/a-n/a. | 3.3 | 113 |
| 21 | Storm time density enhancements in the middle″atitude dayside ionosphere. Journal of Geophysical Research, 2009, 114, . | 3.3 | 106 |
| 22 | A morphological study of vertical ionospheric flows in the highâ€latitude <i>F</i> region. Journal of Geophysical Research, 1991, 96, 3627-3646. | 3.3 | 104 |
| 23 | Observational evidence for a boundary layer source of dayside region 1 fieldâ€aligned currents. Journal of Geophysical Research, 1981, 86, 5577-5589. | 3.3 | 97 |
| 24 | Ionospheric convection signatures observed by De 2 during northward interplanetary magnetic field. Journal of Geophysical Research, 1986, 91, 5817-5830. | 3.3 | 97 |
| 25 | Observations of quiet time vertical ion drift in the equatorial ionosphere during the solar minimum period of 2009. Journal of Geophysical Research, 2011, 116, n/a-n/a. | 3.3 | 94 |
| 26 | Dayside auroral arcs and convection. Geophysical Research Letters, 1978, 5, 391-394. | 1.5 | 93 |
| 27 | Lowâ€latitude zonal and vertical ion drifts seen by DE 2. Journal of Geophysical Research, 1989, 94, 6751-6761. | 3.3 | 91 |
| 28 | Model of the highâ€latitude ionospheric convection pattern during southward interplanetary magnetic field using DE 2 data. Journal of Geophysical Research, 1990, 95, 2333-2343. | 3.3 | 89 |
| 29 | Interpretation and modeling of the high-latitude electromagnetic energy flux. Journal of Geophysical Research, 1995, 100, 19715. | 3.3 | 89 |
| 30 | Duskside enhancement of equatorial zonal electric field response to convection electric fields during the St. Patrick's Day storm on 17 March 2015. Journal of Geophysical Research: Space Physics, 2016, 121, 538-548. | 0.8 | 88 |
| 31 | Particle acceleration parallel and perpendicular to the magnetic field observed by DEâ€2. Journal of Geophysical Research, 1984, 89, 3893-3902. | 3.3 | 86 |
| 32 | Observed saturation of the ionospheric polar cap potential during the 31 March 2001 storm. Geophysical Research Letters, 2003, 30, . | 1.5 | 82 |
| 33 | Characteristics of auroral electron acceleration regions observed by Atmosphere Explorer C. Journal of Geophysical Research, 1976, 81, 2223-2230. | 3.3 | 80 |
| 34 | Plasma density enhancements associated with equatorial spreadF: ROCSAT-1 and DMSP observations. Journal of Geophysical Research, 2003, 108, . | 3.3 | 80 |
| 35 | Formation of a plasma depletion shell in the equatorial ionosphere. Journal of Geophysical Research, 2009, 114, . | 3.3 | 78 |
| 36 | Neutral motions in the polar thermosphere for northward interplanetary magnetic field. Geophysical Research Letters, 1985, 12, 159-162. | 1.5 | 74 |

| # | Article | IF | CITATIONS |
|----|--|-----|-----------|
| 37 | Longitudinal variations of electron temperature and total ion density in the sunset equatorial topside ionosphere. Geophysical Research Letters, 2008, 35, . | 1.5 | 72 |
| 38 | Response time of the polar ionospheric convection pattern to changes in the north-south direction of the IMF. Geophysical Research Letters, 1995, 22, 631-634. | 1.5 | 70 |
| 39 | Seasonal and longitudinal variation of large-scale topside equatorial plasma depletions. Journal of Geophysical Research, 2005, 110 , . | 3.3 | 70 |
| 40 | Auroral arc electrodynamic parameters measured by AE and the Chatanika Radar. Journal of Geophysical Research, 1981, 86, 4671-4685. | 3.3 | 69 |
| 41 | Measurements of Thermal Ion Drift Velocity and Temperature Using Planar Sensors. Geophysical Monograph Series, 2013, , 61-71. | 0.1 | 67 |
| 42 | Cusp region particle precipitation and ion convection for northward interplanetary magnetic field. Geophysical Research Letters, 1980, 7, 393-396. | 1.5 | 65 |
| 43 | Eastâ€west ion drifts at midâ€latitudes observed by Dynamics Explorer 2. Journal of Geophysical Research, 1992, 97, 19461-19469. | 3.3 | 64 |
| 44 | Effects of electrical coupling on equatorial ionospheric plasma motions: When is the ⟨i⟩F⟨/i⟩ region a dominant driver in the lowâ€latitude dynamo?. Journal of Geophysical Research, 1993, 98, 6033-6037. | 3.3 | 63 |
| 45 | Transformation of high-latitude ionosphericFregion patches into blobs during the March 21, 1990, storm. Journal of Geophysical Research, 2000, 105, 5215-5230. | 3.3 | 62 |
| 46 | Ion Velocity Measurements for the Ionospheric Connections Explorer. Space Science Reviews, 2017, 212, 615-629. | 3.7 | 61 |
| 47 | Properties of spikelike shear flow reversals observed in the auroral plasma by Atmosphere Explorer C. Journal of Geophysical Research, 1976, 81, 3886-3896. | 3.3 | 59 |
| 48 | Dayside observations of thermalâ€ion upwellings at 800â€km Altitude: An ionospheric signature of the cleft ion fountain. Journal of Geophysical Research, 1989, 94, 15277-15290. | 3.3 | 59 |
| 49 | Adaptive identification and characterization of polar ionization patches. Journal of Geophysical Research, 1995, 100, 23819. | 3.3 | 58 |
| 50 | Ground and Space-Based Measurement of Rocket Engine Burns in the Ionosphere. IEEE Transactions on Plasma Science, 2012, 40, 1267-1286. | 0.6 | 58 |
| 51 | Evolution of the global aurora during positive IMFBzand varying IMFByconditions. Journal of Geophysical Research, 1997, 102, 17489-17497. | 3.3 | 56 |
| 52 | Distributions of He ⁺ at middle and equatorial latitudes during solar maximum. Journal of Geophysical Research, 1990, 95, 10313-10320. | 3.3 | 55 |
| 53 | Longitude variations in ion composition in the morning and evening topside equatorial ionosphere near solar minimum. Journal of Geophysical Research, 1996, 101, 7951-7960. | 3.3 | 54 |
| 54 | Challenges to Understanding the Earth's Ionosphere and Thermosphere. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027497. | 0.8 | 53 |

| # | Article | IF | CITATIONS |
|----|--|--------------|-----------|
| 55 | Comparison of low-latitude ion and neutral zonal drifts using DE 2 data. Journal of Geophysical Research, 1994, 99, 341. | 3.3 | 52 |
| 56 | Modeling subauroral polarization streams during the 17 March 2013 storm. Journal of Geophysical Research: Space Physics, 2015, 120, 1738-1750. | 0.8 | 52 |
| 57 | On the relationship between dynamics of the polar thermosphere and morphology of the aurora: Globalâ€scale observations from Dynamics Explorers 1 and 2. Journal of Geophysical Research, 1988, 93, 2675-2692. | 3.3 | 51 |
| 58 | Modeling daytime F layer patches over Sondrestrom. Radio Science, 1994, 29, 249-268. | 0.8 | 50 |
| 59 | Structures in ionospheric number density and velocity associated with polar cap ionization patches. Journal of Geophysical Research, 1997, 102, 307-318. | 3 . 3 | 50 |
| 60 | The role of zonal winds in the production of a preâ \in reversal enhancement in the vertical ion drift in the low latitude ionosphere. Journal of Geophysical Research, 2012, 117, . | 3.3 | 50 |
| 61 | Multistation measurements of highâ€latitude ionospheric convection. Journal of Geophysical Research, 1983, 88, 10111-10121. | 3.3 | 49 |
| 62 | On the currentâ€voltage relationship of the magnetospheric generator at intermediate spatial scales. Geophysical Research Letters, 1986, 13, 495-498. | 1.5 | 49 |
| 63 | Fieldâ€aligned drifts in subauroral ion drift events. Journal of Geophysical Research, 1993, 98, 21493-21499. | 3 . 3 | 49 |
| 64 | Summary of field-aligned Poynting flux observations from DE 2. Geophysical Research Letters, 1995, 22, 1861-1864. | 1.5 | 49 |
| 65 | <i>E</i> and <i>F</i> region study of the evening sector auroral oval: A Chatanika/Dynamics Explorer 2/NOAA 6 comparison. Journal of Geophysical Research, 1987, 92, 2477-2494. | 3.3 | 48 |
| 66 | A modeling study of the longitudinal dependence of storm time midlatitude dayside total electron content enhancements. Journal of Geophysical Research, 2012, 117, . | 3.3 | 48 |
| 67 | ROCSAT 1 ionospheric plasma and electrodynamics instrument observations of equatorial spreadF: An early transitional scale result. Journal of Geophysical Research, 2001, 106, 29153-29159. | 3.3 | 46 |
| 68 | Equatorial plasma bubbles: Variations of occurrence and spatial scale in local time, longitude, season, and solar activity. Journal of Geophysical Research: Space Physics, 2017, 122, 5743-5755. | 0.8 | 46 |
| 69 | Universal time dependence of nighttime F region densities at high latitudes. Journal of Geophysical Research, 1985, 90, 4319-4332. | 3 . 3 | 45 |
| 70 | Topside equatorial ionospheric density and composition during and after extreme solar minimum. Journal of Geophysical Research, 2011, 116, n/a-n/a. | 3.3 | 45 |
| 71 | Distribution of convection potential around the polar cap boundary as a function of the interplanetary magnetic field. Journal of Geophysical Research, 1989, 94, 13447-13461. | 3. 3 | 44 |
| 72 | A Sunâ€aligned arc observed by DMSP and AE . Journal of Geophysical Research, 1985, 90, 9697-9710. | 3.3 | 43 |

| # | Article | IF | CITATIONS |
|----|---|------|-----------|
| 73 | Coherent mesoscale convection patterns during northward interplanetary magnetic field. Journal of Geophysical Research, 1988, 93, 14501-14514. | 3.3 | 43 |
| 74 | Field-aligned Poynting Flux observations in the high-latitude ionosphere. Journal of Geophysical Research, 1994, 99, 11417. | 3.3 | 43 |
| 75 | Structure and occurrence of polar ionization patches. Journal of Geophysical Research, 1998, 103, 2201-2208. | 3.3 | 43 |
| 76 | Interplanetary magnetic field control of theta aurora development. Journal of Geophysical Research, 2002, 107, SIA 4-1. | 3.3 | 43 |
| 77 | Spatial distribution of ionospheric plasma and field structures in the high-latitudeFregion. Journal of Geophysical Research, 1998, 103, 6955-6968. | 3.3 | 42 |
| 78 | Mediumâ€scale equatorial plasma irregularities observed by Coupled Ionâ€Neutral Dynamics Investigation sensors aboard the Communication Navigation Outage Forecast System in a prolonged solar minimum. Journal of Geophysical Research, 2010, 115, . | 3.3 | 42 |
| 79 | Variations in the low―and middleâ€katitude topside ion concentration observed by DMSP during superstorm events. Journal of Geophysical Research, 2007, 112, . | 3.3 | 40 |
| 80 | lon composition of the topside equatorial ionosphere during solar minimum. Journal of Geophysical Research, 1992, 97, 4299-4303. | 3.3 | 39 |
| 81 | DMSP F8 observations of the mid-latitude and low-latitude topside ionosphere near solar minimum. Journal of Geophysical Research, 1994, 99, 3817. | 3.3 | 39 |
| 82 | Ground-based studies of ionospheric convection associated with substorm expansion. Journal of Geophysical Research, 1994, 99, 19451. | 3.3 | 39 |
| 83 | Solar activity variations in the composition of the low-latitude topside ionosphere. Journal of Geophysical Research, 1997, 102, 295-305. | 3.3 | 39 |
| 84 | Analysis of the ionospheric cross polar cap potential drop using DMSP data during the National Space Weather Program study period. Journal of Geophysical Research, 1998, 103, 26337-26347. | 3.3 | 39 |
| 85 | Equatorial density irregularity structures at intermediate scales and their temporal evolution. Journal of Geophysical Research, 1998, 103, 3969-3981. | 3.3 | 38 |
| 86 | Global and local Joule heating effects seen by DE 2. Journal of Geophysical Research, 1988, 93, 7551-7557. | 3.3 | 37 |
| 87 | Storming the Bastille: the effect of electric fields on the ionospheric F-layer. Annales Geophysicae, 2010, 28, 977-981. | 0.6 | 37 |
| 88 | The geomagnetic mass spectrometerâ€" mass and energy dispersions of ionospheric ion flows into the magnetosphere. Nature, 1985, 316, 612-613. | 13.7 | 36 |
| 89 | Fast equatorial bubbles. Journal of Geophysical Research, 1997, 102, 2039-2045. | 3.3 | 35 |
| 90 | On TIEâ€GCM simulation of the evening equatorial plasma vortex. Journal of Geophysical Research, 2012, 117, . | 3.3 | 35 |

| # | Article | IF | Citations |
|-----|--|-----|-----------|
| 91 | A model for multiple throat structures in the polar cap flow entry region. Journal of Geophysical Research, 1988, 93, 9785-9790. | 3.3 | 34 |
| 92 | Upflowing ionospheric ions in the auroral region. Journal of Geophysical Research, 1992, 97, 16855-16863. | 3.3 | 34 |
| 93 | Seasonal and universal time distribution of patches in the northern and southern polar caps. Journal of Geophysical Research, 1998, 103, 29229-29237. | 3.3 | 34 |
| 94 | Observation of a large density dropout across the magnetic field at 600 km altitude during the 6–7 April 2000 magnetic storm. Journal of Geophysical Research, 2002, 107, SIA 18-1. | 3.3 | 34 |
| 95 | lon temperature and density relationships measured by CINDI from the C/NOFS spacecraft during solar minimum. Journal of Geophysical Research, 2010, 115 , . | 3.3 | 34 |
| 96 | Earth's ion upflow associated with polar cap patches: Global and in situ observations. Geophysical Research Letters, 2016, 43, 1845-1853. | 1.5 | 34 |
| 97 | Longitudinal and seasonal variations of the equatorial ionospheric ion density and eastward drift velocity in the dusk sector. Journal of Geophysical Research, 2010, 115, . | 3.3 | 33 |
| 98 | Multiple auroral arcs and Birkeland currents: Evidence for plasma sheet boundary waves. Geophysical Research Letters, 1986, 13, 805-808. | 1.5 | 32 |
| 99 | Thermospheric dynamics during November 21–22, 1981: Dynamics Explorer measurements and thermospheric general circulation model predictions. Journal of Geophysical Research, 1988, 93, 209-225. | 3.3 | 32 |
| 100 | How wide in magnetic local time is the cusp? An event study. Journal of Geophysical Research, 1997, 102, 4765-4776. | 3.3 | 32 |
| 101 | C/NOFS observations of the equatorial ionospheric electric field response to the 2009 major sudden stratospheric warming event. Journal of Geophysical Research, 2011, 116, n/a-n/a. | 3.3 | 32 |
| 102 | Polar cap deflation during magnetospheric substorms. Journal of Geophysical Research, 1989, 94, 3785-3789. | 3.3 | 31 |
| 103 | High-latitude ionospheric convection pattern during steady northward interplanetary magnetic field. Journal of Geophysical Research, 1995, 100, 14537. | 3.3 | 31 |
| 104 | Thermospheric and ionospheric structure of the southern hemisphere polar cap on October 21, 1981, as determined from Dynamics Explorer 2 satellite data. Journal of Geophysical Research, 1985, 90, 6553-6566. | 3.3 | 30 |
| 105 | Studies of ionospheric plasma and electrodynamics and their application to ionosphereâ€magnetosphere coupling. Reviews of Geophysics, 1988, 26, 317-328. | 9.0 | 30 |
| 106 | Storm time plasma irregularities in the pre-dawn hours observed by the low-latitude ROCSAT-1 satellite at 600 km altitude. Geophysical Research Letters, 2001, 28, 685-688. | 1.5 | 30 |
| 107 | Onset conditions of bubbles and blobs: A case study on 2 March 2009. Geophysical Research Letters, 2011, 38, n/a-n/a. | 1.5 | 30 |
| 108 | Characteristics of lowâ€latitude ionospheric depletions and enhancements during solar minimum. Journal of Geophysical Research, 2012, 117, . | 3.3 | 30 |

| # | Article | IF | CITATIONS |
|-----|--|-----|-----------|
| 109 | Source of the lowâ€altitude hiss in the ionosphere. Geophysical Research Letters, 2017, 44, 2060-2069. | 1.5 | 30 |
| 110 | Effects of electric field methods on modeling the midlatitude ionospheric electrodynamics and inner magnetosphere dynamics. Journal of Geophysical Research: Space Physics, 2017, 122, 5321-5338. | 0.8 | 30 |
| 111 | Ion temperature troughs and interhemispheric transport observed in the equatorial ionosphere. Journal of Geophysical Research, 1978, 83, 3683-3689. | 3.3 | 29 |
| 112 | Electron temperatures during rapid subauroral ion drift events. Annales Geophysicae, 1998, 16, 450-459. | 0.6 | 29 |
| 113 | Characteristics of ion velocity structure at high latitudes during steady southward interplanetary magnetic field conditions. Journal of Geophysical Research, 2005, 110, . | 3.3 | 28 |
| 114 | Neutral wind effect in producing a storm time ionospheric additional layer in the equatorial ionization anomaly region. Journal of Geophysical Research, 2009, 114, . | 3.3 | 28 |
| 115 | High-latitude plasma outflow as measured by the DMSP spacecraft. Journal of Geophysical Research, 2003, 108, . | 3.3 | 27 |
| 116 | Influences of geomagnetic fields on longitudinal variations of vertical plasma drifts in the presunset equatorial topside ionosphere. Journal of Geophysical Research, 2009, 114, . | 3.3 | 27 |
| 117 | Observed Propagation Route of VLF Transmitter Signals in the Magnetosphere. Journal of Geophysical Research: Space Physics, 2018, 123, 5528-5537. | 0.8 | 27 |
| 118 | lonospheric flows associated with a transpolar arc. Journal of Geophysical Research, 1990, 95, 21169-21178. | 3.3 | 26 |
| 119 | The Mid-Latitude Trough-Revisited. Geophysical Monograph Series, 0, , 25-33. | 0.1 | 26 |
| 120 | Electrical coupling effects on the temporal evolution of F layer plasma structure. Journal of Geophysical Research, 1985, 90, 437-445. | 3.3 | 25 |
| 121 | Four cells or two? Are four convection cells really necessary?. Journal of Geophysical Research, 1994, 99, 3955. | 3.3 | 25 |
| 122 | lonospheric storm time dynamics as seen by GPS tomography and in situ spacecraft observations. Journal of Geophysical Research, 2008, 113, . | 3.3 | 25 |
| 123 | WN4 effect on longitudinal distribution of different ion species in the topside ionosphere at low latitudes by means of DEMETER, DMSP-F13 and DMSP-F15 data. Annales Geophysicae, 2009, 27, 2893-2902. | 0.6 | 25 |
| 124 | Lower-thermosphere–ionosphere (LTI) quantities: current status of measuring techniques and models. Annales Geophysicae, 2021, 39, 189-237. | 0.6 | 25 |
| 125 | Regulation of ionospheric plasma velocities by thermospheric winds. Nature Geoscience, 2021, 14, 893-898. | 5.4 | 25 |
| 126 | The polar ionosphere. Reviews of Geophysics, 1982, 20, 567-576. | 9.0 | 24 |

| # | Article | IF | CITATIONS |
|-----|---|-----|-----------|
| 127 | Magnetic fieldâ€aligned coupling effects on ionospheric plasma structure. Journal of Geophysical Research, 1990, 95, 7995-8008. | 3.3 | 24 |
| 128 | Observations of low-latitude plasma density enhancements and their associated plasma drifts. Journal of Geophysical Research, 2011, 116, n/a-n/a. | 3.3 | 24 |
| 129 | Topside signature of medium-scale traveling ionospheric disturbances. Annales Geophysicae, 2014, 32, 959-965. | 0.6 | 24 |
| 130 | Measurement of magnetic field aligned potential differences using high resolution conjugate photoelectron energy spectra. Geophysical Research Letters, 1977, 4, 373-376. | 1.5 | 22 |
| 131 | Combining electric field and aurora observations from DE 1 and 2 with ground magnetometer records to estimate ionospheric electromagnetic quantities. Journal of Geophysical Research, 1989, 94, 6723-6738. | 3.3 | 22 |
| 132 | Storm time signatures of the ionospheric zonal ion drift at middle latitudes. Journal of Geophysical Research, 2009, 114 , . | 3.3 | 22 |
| 133 | Exploring the role of ionospheric drivers during the extreme solar minimum of 2008. Annales Geophysicae, 2013, 31, 2147-2156. | 0.6 | 21 |
| 134 | A feature of the behavior of He ⁺ in the nightside highâ€latitude ionosphere during equinox. Journal of Geophysical Research, 1981, 86, 59-64. | 3.3 | 20 |
| 135 | Observations of ionospheric magnetospheric coupling: DE and Chatanika coincidences. Journal of Geophysical Research, 1986, 91, 5803-5815. | 3.3 | 20 |
| 136 | A Comparison of in situ measurements of and from Dynamics Explorer 2. Journal of Geophysical Research, 1993, 98, 21501-21516. | 3.3 | 20 |
| 137 | Response of the topside ionosphere to recurrent geomagnetic activity. Journal of Geophysical Research, 2010, 115 , . | 3.3 | 20 |
| 138 | Ion drift meter calibration and photoemission correction for the C/NOFS satellite. Journal of Geophysical Research, 2012, 117, . | 3.3 | 20 |
| 139 | Threeâ€dimensional numerical simulations of equatorial spread <i>F</i> : Results and observations in the Pacific sector. Journal of Geophysical Research, 2012, 117, . | 3.3 | 20 |
| 140 | Solar filament impact on 21 January 2005: Geospace consequences. Journal of Geophysical Research: Space Physics, 2014, 119, 5401-5448. | 0.8 | 20 |
| 141 | The Ion/Electron Temperature Characteristics of Polar Cap Classical and Hot Patches and Their Influence on Ion Upflow. Geophysical Research Letters, 2018, 45, 8072-8080. | 1.5 | 20 |
| 142 | Velocity spike at the poleward edge of the auroral zone. Journal of Geophysical Research, 1984, 89, 1627-1634. | 3.3 | 19 |
| 143 | The HiLat satellite mission. Radio Science, 1985, 20, 416-424. | 0.8 | 19 |
| 144 | lonospheric convection signatures and magnetic field topology. Journal of Geophysical Research, 1987, 92, 12352-12364. | 3.3 | 19 |

| # | Article | IF | Citations |
|-----|---|-----|-----------|
| 145 | Response of the ionospheric convection pattern to a rotation of the interplanetary magnetic field on January 14, 1988. Journal of Geophysical Research, 1992, 97, 19449-19460. | 3.3 | 19 |
| 146 | Threeâ€dimensional ionospheric plasma circulation. Journal of Geophysical Research, 1992, 97, 13903-13910. | 3.3 | 18 |
| 147 | The influence of hemispheric asymmetries on fieldâ€aligned ion drifts at the geomagnetic equator. Geophysical Research Letters, 2012, 39, . | 1.5 | 18 |
| 148 | Global Modeling of Storm-Time Thermospheric Dynamics and Electrodynamics. Geophysical Monograph Series, 0, , 187-200. | 0.1 | 18 |
| 149 | Low latitude thermospheric responses to magnetic storms. Journal of Geophysical Research: Space Physics, 2013, 118, 3866-3876. | 0.8 | 18 |
| 150 | Topside equatorial zonal ion velocities measured by C/NOFS during rising solar activity. Annales Geophysicae, 2014, 32, 69-75. | 0.6 | 18 |
| 151 | Dynamics Explorer observations of equatorial spread F: Evidence for drift waves. Geophysical Research Letters, 1982, 9, 993-996. | 1.5 | 17 |
| 152 | Effects of zonal winds and metallic ions on the behavior of intermediate layers. Journal of Geophysical Research, 1995, 100, 7829. | 3.3 | 17 |
| 153 | Characteristics of high-latitude vertical plasma flow from the Defense Meteorological Satellite Program. Journal of Geophysical Research, 2006, 111, . | 3.3 | 17 |
| 154 | Combined Contribution of Solar Illumination, Solar Activity, and Convection to Ion Upflow Above the Polar Cap. Journal of Geophysical Research: Space Physics, 2018, 123, 4317-4328. | 0.8 | 17 |
| 155 | Observations of shock impact, disturbance dynamo effect, and a midlatitude large-density depletion at 600 km altitude on the 17 April 2002 storm day. Journal of Geophysical Research, 2003, 108, . | 3.3 | 16 |
| 156 | Quiet time meridional (vertical) ion drifts at low and middle latitudes observed by ROCSATâ€1. Journal of Geophysical Research, 2010, 115, . | 3.3 | 16 |
| 157 | Response of the ionospheric convection reversal boundary at high latitudes to changes in the interplanetary magnetic field. Journal of Geophysical Research: Space Physics, 2015, 120, 5022-5034. | 0.8 | 16 |
| 158 | Largeâ€Scale O ⁺ Depletions Observed by ICON in the Postâ€Midnight Topside Ionosphere: Data/Model Comparison. Geophysical Research Letters, 2021, 48, e2020GL092061. | 1.5 | 16 |
| 159 | The HILAT program. Eos, 1983, 64, 163-170. | 0.1 | 15 |
| 160 | MITHRAS: A brief description. Radio Science, 1984, 19, 665-673. | 0.8 | 15 |
| 161 | Coordinated radar and optical measurements of stable auroral arcs at the polar cap boundary. Journal of Geophysical Research, 1991, 96, 17847-17863. | 3.3 | 15 |
| 162 | Ion and neutral motions observed in the winter polar upper atmosphere. Journal of Geophysical Research, 2002, 107, SIA 17-1-SIA 17-7. | 3.3 | 15 |

| # | Article | IF | Citations |
|-----|--|-----|-----------|
| 163 | Seasonal and latitudinal distributions of the dominant light ions at 600 km topside ionosphere from 1999 to 2002. Journal of Geophysical Research, 2005, 110, . | 3.3 | 15 |
| 164 | Latitude and local time variations of topside magnetic field-aligned ion drifts at solar minimum. Journal of Geophysical Research, 2011, 116, n/a-n/a. | 3.3 | 15 |
| 165 | Vertical ExB drifts from radar and C/NOFS observations in the Indian and Indonesian sectors: Consistency of observations and model. Journal of Geophysical Research: Space Physics, 2014, 119, 3777-3788. | 0.8 | 15 |
| 166 | Errors in ram velocity and temperature measurements inferred from satellite-borne retarding potential analyzers. Physics of Plasmas, 2008, 15, 062905. | 0.7 | 14 |
| 167 | Electrostatic potential drop across the ionospheric signature of the low″atitude boundary layer. Journal of Geophysical Research, 2009, 114, . | 3.3 | 14 |
| 168 | Superrotation of the ionosphere and quiet time zonal ion drifts at low and middle latitudes observed by Republic of China Satellite-1 (ROCSAT-1). Journal of Geophysical Research, 2011, 116, n/a-n/a. | 3.3 | 14 |
| 169 | Atmosphereâ€konosphere (Aâ€l) Coupling as Viewed by ICON: Dayâ€toâ€Day Variability Due to Planetary Wave (PW)â€Tide Interactions. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA028927. | 0.8 | 14 |
| 170 | Plasma and field properties of suprathermal electron bursts. Journal of Geophysical Research, 1989, 94, 12031-12036. | 3.3 | 13 |
| 171 | A modelling study of the latitudinal variations in the nighttime plasma temperatures of the equatorial topside ionosphere during northern winter at solar maximum. Annales Geophysicae, 2000, 18, 1435-1446. | 0.6 | 13 |
| 172 | Variations of thermospheric composition according to AE-C data and CTIP modelling. Annales Geophysicae, 2004, 22, 441-452. | 0.6 | 13 |
| 173 | Lowâ€latitude measurements of neutral thermospheric helium dominance near 400 km during extreme solar minimum. Journal of Geophysical Research, 2010, 115, . | 3.3 | 13 |
| 174 | Equatorial longitude and local time variations of topside magnetic field-aligned ion drifts at solar minimum. Journal of Geophysical Research, 2012, 117, n/a-n/a. | 3.3 | 13 |
| 175 | On relationships between horizontal velocity structure and thermal ion upwellings at high latitudes. Geophysical Research Letters, 1999, 26, 1829-1832. | 1.5 | 12 |
| 176 | Radioâ€tomographic images of postmidnight equatorial plasma depletions. Geophysical Research Letters, 2014, 41, 13-19. | 1.5 | 12 |
| 177 | Impact of Flow Bursts in the Auroral Zone on the Ionosphere and Thermosphere. Journal of Geophysical Research: Space Physics, 2019, 124, 10459-10467. | 0.8 | 12 |
| 178 | Rocket and satellite observations of electric fields and ion convection in the dayside auroral ionosphere. Canadian Journal of Physics, 1986, 64, 1417-1425. | 0.4 | 11 |
| 179 | Low- and Middle-Latitude Ionospheric Dynamics Associated with Magnetic Storms. Geophysical Monograph Series, 0, , 51-61. | 0.1 | 11 |
| 180 | Supercooled ion temperatures observed in the topside ionosphere at dawn meridian during storm periods. Journal of Geophysical Research, 2004, 109 , . | 3.3 | 10 |

| # | Article | IF | CITATIONS |
|-----|--|-----|-----------|
| 181 | A statistical analysis of systematic errors in temperature and ram velocity estimates from satellite-borne retarding potential analyzers. Physics of Plasmas, 2009, 16, . | 0.7 | 10 |
| 182 | Identifying equatorial ionospheric irregularities using in situ ion drifts. Annales Geophysicae, 2014, 32, 421-429. | 0.6 | 10 |
| 183 | The Plasma Environment Associated With Equatorial Ionospheric Irregularities. Journal of Geophysical Research: Space Physics, 2018, 123, 1583-1592. | 0.8 | 10 |
| 184 | Mesoscale Plasma Convection Perturbations in the Highâ€Latitude Ionosphere. Journal of Geophysical Research: Space Physics, 2018, 123, 7609-7620. | 0.8 | 10 |
| 185 | Ion Velocity and Temperature Variation Around Topside Nighttime Irregularities: Contrast Between Low―and Mid‣atitude Regions. Journal of Geophysical Research: Space Physics, 2021, 126, e2020JA028810. | 0.8 | 10 |
| 186 | IMF Changes and Polar-Cap Electric Fields and Currents. Astrophysics and Space Science Library, 1979, , 47-62. | 1.0 | 10 |
| 187 | Electrodynamics and plasma processes in the ionosphere. Reviews of Geophysics, 1987, 25, 419-431. | 9.0 | 9 |
| 188 | The Linkage between the Ring Current and the Ionosphere System. Geophysical Monograph Series, 0, , $135-143$. | 0.1 | 9 |
| 189 | Response of the topside ionosphere to high-speed solar wind streams. Journal of Geophysical Research, 2011, 116, n/a-n/a. | 3.3 | 9 |
| 190 | Effects of Alignment Between Particle Precipitation and Ion Convection Patterns on Joule Heating. Journal of Geophysical Research: Space Physics, 2019, 124, 4905-4915. | 0.8 | 9 |
| 191 | Topside Plasma Flows in the Equatorial Ionosphere and Their Relationships to Fâ€Region Winds Near 250Âkm. Journal of Geophysical Research: Space Physics, 2022, 127, . | 0.8 | 9 |
| 192 | Relative solar and auroral contribution to the polarFregion: Implications for National Space Weather Program. Journal of Geophysical Research, 2002, 107, SIA 15-1. | 3.3 | 8 |
| 193 | Reply to Tsurutani et al.'s comment on & Damp; quot; Storming the Bastille: the effect of electric fields on the ionospheric F-layer & Damp; quot; by Rishbeth et al. (2010). Annales Geophysicae, 2013, 31, 151-152. | 0.6 | 8 |
| 194 | Coordinated Satellite Observations of the Very Low Frequency Transmission Through the Ionospheric <i>O</i> Layer at Low Latitudes, Using Broadband Radio Emissions From Lightning. Journal of Geophysical Research: Space Physics, 2018, 123, 2926-2952. | 0.8 | 8 |
| 195 | Stormtime measurements of topside ionospheric upflow from Defense Meteorological Satellite Program. Journal of Geophysical Research, 2009, 114, . | 3.3 | 7 |
| 196 | A numerical study of geometry dependent errors in velocity, temperature, and density measurements from single grid planar retarding potential analyzers. Physics of Plasmas, 2010, 17, . | 0.7 | 7 |
| 197 | A comparison of ionospheric O ⁺ /lightâ€ion transition height derived from ionâ€composition measurements and the topside ion density profiles over equatorial latitudes. Geophysical Research Letters, 2010, 37, . | 1.5 | 7 |
| 198 | Response of the equatorial topside ionosphere to 27â€day variations in solar EUV input during a low solar activity period using C/NOFS. Journal of Geophysical Research, 2012, 117, . | 3.3 | 7 |

| # | Article | IF | CITATIONS |
|-----|--|-----|-----------|
| 199 | Motions of the Convection Reversal Boundary and Local Plasma in the Highâ€Latitude Ionosphere. Journal of Geophysical Research: Space Physics, 2018, 123, 2953-2963. | 0.8 | 7 |
| 200 | Sensitivity of Upper Atmosphere to Different Characteristics of Flow Bursts in the Auroral Zone. Journal of Geophysical Research: Space Physics, 2021, 126, e2021JA029253. | 0.8 | 7 |
| 201 | Magnetospheric multiscale and global electrodynamics missions. Geophysical Monograph Series, 1999, , 225-235. | 0.1 | 6 |
| 202 | Daytime altitude variations of the equatorial, topside magnetic field $\hat{a} \in \mathbb{R}$ ligned ion transport at solar minimum. Journal of Geophysical Research: Space Physics, 2013, 118, 3568-3575. | 0.8 | 6 |
| 203 | A method to estimate whistler wave vector from polarization using threeâ€component electric field data. Radio Science, 2014, 49, 131-145. | 0.8 | 6 |
| 204 | Daytime zonal drifts in the ionospheric $150 \text{\^A}\text{km}$ and $\langle i \rangle \text{E} \langle j \rangle$ regions estimated using EAR observations. Journal of Geophysical Research: Space Physics, 2017, 122, 9045-9055. | 0.8 | 6 |
| 205 | Plasma Dynamics Associated With Equatorial Ionospheric Irregularities. Geophysical Research Letters, 2018, 45, 7927-7932. | 1.5 | 6 |
| 206 | The Low Altitude Cleft: Plasma Entry and Magnetospheric Topology. , 1983, , 57-72. | | 6 |
| 207 | Dynamics Explorer Measurements of Particles, Fields, and Plasma Drifts Over a Horse-Collar Auroral Pattern Journal of Geomagnetism and Geoelectricity, 1992, 44, 1225-1237. | 0.8 | 6 |
| 208 | Midlatitude Ionospheric Dynamics and Disturbances: Introduction. Geophysical Monograph Series, 0, , $1-7$. | 0.1 | 5 |
| 209 | Specifying the equatorial ionosphere using CINDI on C/NOFS, COSMIC, and data interpolating empirical orthogonal functions. Journal of Geophysical Research: Space Physics, 2013, 118, 6706-6722. | 0.8 | 5 |
| 210 | In situ irregularity identification and scintillation estimation using wavelets and CINDI on C/NOFS. Radio Science, 2013, 48, 388-395. | 0.8 | 5 |
| 211 | Plasma and convection reversal boundary motions in the high″atitude ionosphere. Journal of Geophysical Research: Space Physics, 2016, 121, 5752-5763. | 0.8 | 5 |
| 212 | Isolated Peak of Oxygen Ion Fraction in the Postâ€Noon Equatorial Fâ€Region: ICON and SAMI3/WACCMâ€X. Journal of Geophysical Research: Space Physics, 2021, 126, e2021JA029217. | 0.8 | 5 |
| 213 | Interplanetary Magnetic Field Effects on High Latitude Ionospheric Convection. , 1985, , 293-303. | | 5 |
| 214 | Storm time meridional wind perturbations in the equatorial upper thermosphere. Journal of Geophysical Research: Space Physics, 2013, 118, 2756-2764. | 0.8 | 4 |
| 215 | Automated identification of discrete, lightningâ€generated, multipleâ€dispersed whistler waves in C/NOFSâ€VEFI very low frequency observations. Radio Science, 2016, 51, 1547-1569. | 0.8 | 4 |
| 216 | Modeling the daytime energy balance of the topside ionosphere at middle latitudes. Journal of Geophysical Research: Space Physics, 2017, 122, 5733-5742. | 0.8 | 4 |

| # | Article | IF | CITATIONS |
|-----|--|-----|-----------|
| 217 | Ion Cyclotron Resonant Absorption Lines in ELF Hiss Power Spectral Density in the Lowâ€Latitude Ionosphere. Geophysical Research Letters, 2020, 47, e2019GL086315. | 1.5 | 4 |
| 218 | Q2DWâ€tide and â€ionosphere interactions as observed from ICON and groundâ€based radars. Journal of Geophysical Research: Space Physics, 2021, 126, e2021JA029961. | 0.8 | 4 |
| 219 | Atmospheric Lunar Tide in the Low Latitude Thermosphereâ€lonosphere. Geophysical Research Letters, 2022, 49, . | 1.5 | 4 |
| 220 | Regional, scale size, and interplanetary magnetic field variability of magnetic field and ion drift structures in the high-latitude ionosphere. Journal of Geophysical Research, 1999, 104, 199-212. | 3.3 | 3 |
| 221 | Comparison of topside equatorial parameters derived from DMSP, Jicamarca, and Another Model of the Ionosphere (SAMI2). Journal of Geophysical Research, 2005, 110, . | 3.3 | 3 |
| 222 | Daytime ion and electron temperatures in the topside ionosphere at middle latitudes. Journal of Geophysical Research: Space Physics, 2017, 122, 2202-2209. | 0.8 | 3 |
| 223 | The High Latitude Ionospheric Convection Pattern. Journal of Geomagnetism and Geoelectricity, 1991, 43, 245-257. | 0.8 | 3 |
| 224 | A modified CTIP model and comparisons with DMSP satellite data. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2003, 361, 139-142. | 1.6 | 2 |
| 225 | A Digest of Electrodynamic Coupling and Layer Instabilities in the Nighttime Midlatitude Ionosphere. Geophysical Monograph Series, 0, , 283-290. | 0.1 | 2 |
| 226 | Impact of the Neutral Wind Dynamo on the Development of the Region 2 Dynamo. Geophysical Monograph Series, 0, , 179-186. | 0.1 | 2 |
| 227 | Unique latitudinal shape of ion upper transition height (HT) surface during deep solar minimum (2008-2009). Journal of Geophysical Research: Space Physics, 2015, 120, 1419-1427. | 0.8 | 2 |
| 228 | Temporal Characteristic of the Mesoscale Plasma Flow Perturbations in the High‣atitude Ionosphere. Journal of Geophysical Research: Space Physics, 2019, 124, 459-469. | 0.8 | 2 |
| 229 | Thermal Ion Drifts in the Dayside High-Latitude Ionosphere. , 1994, , 43-57. | | 2 |
| 230 | William B. Hanson 1923 - 1994: A retrospective. Journal of Geophysical Research, 1997, 102, 2035-2038. | 3.3 | 1 |
| 231 | Longitudinal ionospheric effects in the South Atlantic evening sector during solar maximum. Journal of Geophysical Research, 2002, 107, SIA 3-1. | 3.3 | 1 |
| 232 | Mapping the duskside topside ionosphere with CINDI and DMSP. Journal of Geophysical Research, 2010, 115, n/a-n/a. | 3.3 | 1 |
| 233 | Measurement of Individual H \pm and O \pm Ion Temperatures in the Topside Ionosphere. Journal of Geophysical Research: Space Physics, 2018, 123, 1525-1533. | 0.8 | 1 |
| 234 | Spatial Characteristics of Mesoscale Plasma Flow Perturbations and Accompanying Electron Precipitation in the High‣atitude Ionosphere. Journal of Geophysical Research: Space Physics, 2019, 124, 10444-10458. | 0.8 | 1 |

| # | ARTICLE | IF | CITATIONS |
|-----|---|-----|-----------|
| 235 | Low‣atitude Whistlerâ€Wave Spectra and Polarization From VEFI and CINDI Payloads on C/NOFS Satellite. Journal of Geophysical Research: Space Physics, 2020, 125, e2019JA027074. | 0.8 | 1 |
| 236 | Using insitu satellite data to describe global scale variations in space weather. , 2004, , . | | 0 |
| 237 | Characterization of the electric potential distribution and large scale auroral zone flows in the ionosphere. Journal of Geophysical Research, 2010, $115, \ldots$ | 3.3 | O |
| 238 | The Nightside Ionosphere: Ionospheric Convection during an Isolated Substorm on October 21, 1981. Journal of Geomagnetism and Geoelectricity, 1996, 48, 915-923. | 0.8 | 0 |