



Umran Inan

Professor of Electrical Engineering, Emeritus

 Curriculum Vitae available Online

Bio

BIO

Through measurements in space and at multiple remote sites in Antarctica, Alaska, and the continental United States, Professor Inan studies the Earth's ionosphere and upper atmosphere. Of particular interest are ionospheric effects of lightning discharges and the recently discovered phenomena of electrical discharges and luminous glows at high altitudes above thunderstorms. He also studies physical processes in the Earth's near-space environment, including space weather effects on navigation and communication signals, electrodynamic coupling of the ionosphere to the magnetosphere, wave-induced precipitation of particles out of the radiation belts, and cyclotron resonant interactions between electromagnetic waves and energetic electrons. He is also involved in the development of ultra-low-power and miniaturized radio receivers for use in remote polar regions and on micro-satellites.

ACADEMIC APPOINTMENTS

- Professor Emeritus, Electrical Engineering

HONORS AND AWARDS

- Appleton Prize, International Radio Science Union (URSI) (2008)
- Allan Cox Medal for Faculty Excellence in Fostering Undergraduate Research, Stanford University (2007)
- Fellow, American Geophysical Union (2007)
- Fellow, Institute of Electrical and Electronics Engineers (2006)
- Group Achievement Award (CLUSTER), NASA (2005)
- Most Outstanding Paper Award, Ionospheric Effects Symposium (2004)
- Tau Beta Pi Award for Excellence in Undergraduate Teaching, Stanford University (1999)
- Group Achievement Award (POLAR), NASA (1998)
- Antarctic Mountain Named Inan Peak# (78.333 S, 162.633 E) in Recognition of Service, Advisory Committee on Antarctic Names (1998)
- Antarctic Service Medal, NSF and Department of the Navy (1994)
- Young Scientist Award, International Union of Radio Science (URSI) (1993)
- Group Achievement Award (Dynamics Explorer), NASA (1984)
- Outstanding Service Award, EE Department for Excellence in Teaching (1978)

PROFESSIONAL EDUCATION

- PhD, Stanford University (1977)

LINKS

- <http://www-star.stanford.edu/~vlf/umran.html>: <http://www-star.stanford.edu/~vlf/umran.html>

Publications

PUBLICATIONS

- **A CubeSat receiver for the study of VLF-waves at LEO**
Ramos, D., Wilson, G., Sousa, A., Marshall, R., Brunetto, K., Ballenthin, J., Kay, R., Patton, J., Quigley, S., Judy, F., Starks, M., Willet-Gies, T., Tullino, et al
SPIE-INT SOC OPTICAL ENGINEERING.2019
- **Broadband longwave radio remote sensing instrumentation. *The Review of scientific instruments***
Cohen, M. B., Said, R. K., Paschal, E. W., McCormick, J. C., Gross, N. C., Thompson, L., Higginson-Rollins, M., Inan, U. S., Chang, J.
2018; 89 (9): 094501
- **Broadband longwave radio remote sensing instrumentation *REVIEW OF SCIENTIFIC INSTRUMENTS***
Cohen, M. B., Said, R. K., Paschal, E. W., McCormick, J. C., Gross, N. C., Thompson, L., Higginson-Rollins, M., Inan, U. S., Chang, J.
2018; 89 (9)
- **Early/fast VLF events produced by the quiescent heating of the lower ionosphere by thunderstorms *JOURNAL OF GEOPHYSICAL RESEARCH-ATMOSPHERES***
Kabirzadeh, R., Marshall, R. A., Inan, U. S.
2017; 122 (12): 6217–30
- **Identifying the occurrence of lightning and transient luminous events by nadir spectrophotometric observation *JOURNAL OF ATMOSPHERIC AND SOLAR-TERRESTRIAL PHYSICS***
Adachi, T., Sato, M., Ushio, T., Yamazaki, A., Suzuki, M., Kikuchi, M., Takahashi, Y., Inan, U. S., Linscott, I., Hobara, Y., Frey, H. U., Mende, S. B., Chen, et al
2016; 145: 85-97
- **Horizontal distributions of sprites derived from the JEM-GLIMS nadir observations *JOURNAL OF GEOPHYSICAL RESEARCH-ATMOSPHERES***
Sato, M., Mihara, M., Adachi, T., Ushio, T., Morimoto, T., Kikuchi, M., Kikuchi, H., Suzuki, M., Yamazaki, A., Takahashi, Y., Inan, U., Linscott, I., Ishida, et al
2016; 121 (7): 3171-3194
- **Global occurrence rate of elves and ionospheric heating due to cloud-to-ground lightning *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS***
Blaes, P. R., Marshall, R. A., Inan, U. S.
2016; 121 (1): 699–712
- **Ship-borne LF-VLF oceanic lightning observations and modeling *JOURNAL OF GEOPHYSICAL RESEARCH-ATMOSPHERES***
Zoghzoghy, F. G., Cohen, M. B., Said, R. K., Lehtinen, N. G., Inan, U. S.
2015; 120 (20): 10890–902
- **Predicting conditions for the reception of one-hop signals from the Siple transmitter experiment using the Kp index *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS***
Li, J. D., Spasojevic, M., Inan, U. S.
2015; 120 (10): 8440–47
- **An empirical profile of VLF triggered emissions *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS***
Li, J. D., Spasojevic, M., Inan, U. S.
2015; 120 (8): 6581–95
- **Latitudinal dependence of static mesospheric Efields above thunderstorms *GEOPHYSICAL RESEARCH LETTERS***
Kabirzadeh, R., Lehtinen, N. G., Inan, U. S.
2015; 42 (10): 4208-4215
- **Overview and early results of the Global Lightning and Sprite Measurements mission *JOURNAL OF GEOPHYSICAL RESEARCH-ATMOSPHERES***
Sato, M., Ushio, T., Morimoto, T., Kikuchi, M., Kikuchi, H., Adachi, T., Suzuki, M., Yamazaki, A., Takahashi, Y., Inan, U., Linscott, I., Ishida, R., Sakamoto, et al
2015; 120 (9): 3822-3851
- **Preferential amplification of rising versus falling frequency whistler mode signals *GEOPHYSICAL RESEARCH LETTERS***

- Li, J. D., Harid, V., Spasojevic, M., Golkowski, M., Inan, U. S.
2015; 42 (2): 207–14
- **The effect of electron and ion temperature on the refractive index surface of 1-10 kHz whistler mode waves in the innermagnetosphere** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Kulkarni, P., Golkowski, M., Inan, U. S., Bell, T. F.
2015; 120 (1): 581–91
 - **Return stroke speed of cloud-to-ground lightning estimated from elve hole radii** *GEOPHYSICAL RESEARCH LETTERS*
Blaes, P. R., Marshall, R. A., Inan, U. S.
2014; 41 (24): 9182-9187
 - **Finite difference modeling of coherent wave amplification in the Earth's radiation belts** *GEOPHYSICAL RESEARCH LETTERS*
Harid, V., Golkowski, M., Bell, T., Li, J. D., Inan, U. S.
2014; 41 (23): 8193-8200
 - **Lightning activity following the return stroke** *JOURNAL OF GEOPHYSICAL RESEARCH-ATMOSPHERES*
Zoghzoghy, F. G., Cohen, M. B., Said, R. K., Basilico, S. S., Blakeslee, R. J., Inan, U. S.
2014; 119 (13)
 - **Theoretical and numerical analysis of radiation belt electron precipitation by coherent whistler mode waves** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Harid, V., Golkowski, M., Bell, T., Inan, U. S.
2014; 119 (6): 4370-4388
 - **Differing current and optical return stroke speeds in lightning** *GEOPHYSICAL RESEARCH LETTERS*
Liang, C., Carlson, B., Lehtinen, N., Cohen, M., Marshall, R. A., Inan, U.
2014; 41 (7): 2561–67
 - **Analysis of magnetospheric ELF/VLF wave amplification from the Siple Transmitter experiment** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Li, J. D., Spasojevic, M., Harid, V., Cohen, M. B., Golkowski, M., Inan, U.
2014; 119 (3): 1837-1850
 - **RECENT RESULTS ON EFFECTS OF LIGHTNING DISCHARGES ON THE IONOSPHERE AND THE RADIATION BELTS**
Inan, U. S., IEEE
IEEE.2014
 - **On the Spatial Scale of Streamers**
Lehtinen, N. G., Inan, U. S., Ostgaard, N., IEEE
IEEE.2014
 - **Extended lateral heating of the nighttime ionosphere by ground-based VLF transmitters** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Graf, K. L., Spasojevic, M., Marshall, R. A., Lehtinen, N. G., Foust, F. R., Inan, U. S.
2013; 118 (12): 7783–97
 - **Highly intense lightning over the oceans: Estimated peak currents from global GLD360 observations** *JOURNAL OF GEOPHYSICAL RESEARCH-ATMOSPHERES*
Said, R. K., Cohen, M. B., Inan, U. S.
2013; 118 (13): 6905–15
 - **Analysis of experimentally validated trans-ionospheric attenuation estimates of VLF signals** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Graf, K. L., Lehtinen, N. G., Spasojevic, M., Cohen, M. B., Marshall, R. A., Inan, U. S.
2013; 118 (5): 2708-2720
 - **Statistical patterns in the location of natural lightning** *JOURNAL OF GEOPHYSICAL RESEARCH-ATMOSPHERES*
Zoghzoghy, F. G., Cohen, M. B., Said, R. K., Inan, U. S.
2013; 118 (2): 787-796
 - **Utilizing nonlinear ELF generation in modulated ionospheric heating experiments for communications applications** *RADIO SCIENCE*
Jin, G., Spasojevic, M., Cohen, M. B., Inan, U. S.

2013; 48 (1): 61-68

- **Modulation of auroral electrojet currents using dual modulated HF beams with ELF phase offset, a potential D-region ionospheric diagnostic** *Journal of Geophysical Research: Space Physics*
Inan, U., Go#kowski, M., Cohen, M. B., Moore, R. C.
2013
- **The spectral extent of chorus in the off-equatorial magnetosphere** *Journal of Geophysical Research: Space Physics*
Inan, U., Bunch, N. L., Spasojevic, M., Shprits, Y. Y., Gu, X., Foust, F.
2013
- **Characteristics of long recovery early VLF events observed by the North African AWESOME Network** *Journal of Geophysical Research: Space Physics*
Inan, U., NaitAmor, S., Cohen, M. B., T., B. R., Ghalila, H., AlAbdoadaim, M. A.
2013
- **Analysis of experimentally validated trans-ionospheric attenuation estimates of VLF signals** *Journal of Geophysical Research: Space Physics*
Graf, K. L., Lehtinen, N. G., Spasojevic, M., Cohen, M. B., Marshall, R. A., Inan, U.
2013
- **The History of Very Low Frequency (VLF)Radio Research at Stanford**
Inan, U., Carpenter, D. L.
2013
- **Dayside auroral hiss observed at South Pole Station** *Journal of Geophysical Research: Space Physics*
Inan, U., Yan, X., LaBelle, J., Haerendel, G., Spasojevic, M., Bunch, N.
2013
- **EMIC waves growth and guiding in the presence of cold plasma density irregularities** *Geophysical Research Letters*
Inan, U., de Soria-Santacruz, M., Spasojevic, M., Chen, L.
2013
- **Highly intense lightning over the oceans: Estimated peak currents from global GLD360 observations** *Journal of Geophysical Research: Atmospheres*
Said, R. K., Cohen, M. B., Inan, U.
2013
- **The VLF fingerprint of elves: Step-like and long-recovery early VLF perturbations caused by powerful \pm CG lightning EM pulses** *Journal of Geophysical Research: Space Physics*
Inan, U., Haldoupis, C., Cohen, M., Arnone, E., Cotts, B., Dietrich, S.
2013
- **On the Relationship Between Lightning Peak Current and Early VLF Perturbations** *Journal of Geophysical Research: Space Physics*
Inan, U., Salut, M. M., Cohen, M. B., Ali, M. A., Graf, K. L., Cotts, B. R.
2013
- **Extended lateral heating of the nighttime ionosphere by ground-based VLF transmitters** *Journal of Geophysical Research: Space Physics*
Craf, K. L., Spasojevic, M., Marshall, R. A., Lehtinen, N. G., Foust, F. R., Inan, U.
2013
- **Chorus functional dependencies derived from CRRES data** *Geophysical Research Letters*
Inan, U., Spasojevic, M., Shprits, Y. Y.
2013
- **100 days of ELF/VLF generation via HF heating with HAARP** *Journal of Geophysical Research: Space Physics*
Inan, U., Cohen, M. B., Go#kowski, M.
2013
- **MAGNETOSPHERIC WAVE POWER DENSITY FROM GROUND-BASED VLF TRANSMITTERS** *US-National-Committee-of-URSI National Radio Science Meeting*
Lauben, D. S., Cohen, M., Lehtinen, N. G., Inan, U. S.
IEEE.2013

- **Models of ionospheric VLF absorption of powerful ground based transmitters** *GEOPHYSICAL RESEARCH LETTERS*
Cohen, M. B., Lehtinen, N. G., Inan, U. S.
2012; 39
- **Very low latitude (L=1.08) whistlers** *GEOPHYSICAL RESEARCH LETTERS*
Singh, R., Cohen, M. B., Maurya, A. K., Veenadhari, B., Kumar, S., PANT, P., Said, R. K., Inan, U. S.
2012; 39
- **Harmonic minimization waveforms for modulated heating experiments at HAARP** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Jin, G., Spasojevic, M., Cohen, M. B., Inan, U. S.
2012; 117
- **Nighttime D region electron density measurements from ELF-VLF tweek radio atmospherics recorded at low latitudes** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Maurya, A. K., Veenadhari, B., Singh, R., Kumar, S., Cohen, M. B., Selvakumaran, R., Gokani, S., PANT, P., Singh, A. K., Inan, U. S.
2012; 117
- **Spatial dependence of banded chorus intensity near the magnetic equator** *GEOPHYSICAL RESEARCH LETTERS*
Haque, N., Inan, U. S., Bell, T. F., Pickett, J. S.
2012; 39
- **Long-lasting D-region ionospheric modifications, caused by intense lightning in association with elve and sprite pairs** *GEOPHYSICAL RESEARCH LETTERS*
Haldoupis, C., Cohen, M., Cotts, B., Arnone, E., Inan, U.
2012; 39
- **Terrestrial VLF transmitter injection into the magnetosphere** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Cohen, M. B., Inan, U. S.
2012; 117
- **HF beam parameters in ELF/VLF wave generation via modulated heating of the ionosphere** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Cohen, M. B., Golkowski, M., Lehtinen, N. G., Inan, U. S., McCarrick, M. J.
2012; 117
- **Morphological features of tweeks and nighttime D region ionosphere at tweek reflection height from the observations in the low-latitude Indian sector** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Maurya, A. K., Singh, R., Veenadhari, B., Kumar, S., Cohen, M. B., Selvakumaran, R., PANT, P., Singh, A. K., Siingh, D., Inan, U. S.
2012; 117
- **An Image Frequency Rejection Filter for SAW-Less GPS Receivers** *IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS I-REGULAR PAPERS*
Barth, C., Linscott, I. R., Inan, U. S.
2012; 59 (5): 1085-1092
- **Robert Arthur Helliwell obituary** *PHYSICS TODAY*
Carpenter, D., Inan, U.
2012; 65 (1): 55-56
- **Robert Helliwell, pioneer of whistler-mode research** *HISTORY OF GEO-AND SPACE SCIENCES*
Carpenter, D. L., Inan, U. S.
2012; 3 (1): 73-74
- **Off-equatorial chorus occurrence and wave amplitude distributions as observed by the Polar Plasma Wave Instrument** *Journal of Geophysical Research*
Inan, U., Bunch, N. L., Spasojevic, M., Shprits, Y. Y.
2012
- **ELF/VLF wave generation from the beating of two HF ionospheric heating sources** *Journal of Geophysical Research*
Inan, U., Cohen, M. B., Moore, R. C., Golkowski, M., Lehtinen, N. G.
2012
- **Statistical modeling of in situ hiss amplitudes using ground measurements** *Journal of Geophysical Research*

- Inan, U., Golden, D. I., Spasojevic, M., Li, W., Nishimura, Y.
2012
- **A waveguide model of the return stroke channel with a “metamaterial” corona** *Radio Science*
Inan, U., Lehtinen, N. G.
2012
 - **Statistical modeling of plasmaspheric hiss amplitude using solar wind measurements and geomagnetic indices** *Geophysical Research Letters*
Inan, U., Golden, D. I., Spasojevic, M., Li, W., Nishimura, Y.
2012
 - **ELF/VLF recordings during the 11 March 2011 Japanese Tohoku earthquake** *Geophysical Research Letters*
Inan, U., Cohen, M. B., Marshall, R. A.
2012
 - **Long recovery VLF perturbations associated with lightning discharges** *Journal of Geophysical Research*
Inan, U., Salut, M. M., Abdullah, M., Graf, K. L., Cohen, M. B., Cotts, B. R.
2012
 - **PENGUIn/AGO and THEMIS conjugate observations of whistler mode chorus waves in the dayside uniform zone under steady solar wind and quiet geomagnetic conditions** *Journal of Geophysical Research*
Inan, U., Keika, K., Spasojevic, M., Li, W., Bortnik, J., Miyoshi, Y.
2012
 - **An empirical model of magnetospheric chorus amplitude using solar wind and geomagnetic indices** *Journal of Geophysical Research*
Inan, U., Golden, D. I., Spasojevic, M., Li, W., Nishimura, Y.
2012
 - **An improved model of the lightning electromagnetic field interaction with the D-region ionosphere** *Journal of Geophysical Research*
Inan, U., Marshall, R. A.
2012
 - **On the altitude of the ELF/VLF source region generated during “beat-wave” HF heating experiments** *Geophysical Research Letters*
Inan, U., Moore, R., Fujimaru, S., Cohen, M. B., Go#kowski, M., McCarrick, M. J.
2012
 - **Morphological features of tweeks and nighttime D-region ionosphere at tweek reflection height from the observations in the low-latitude Indian sector** *ournal of Geophysical Research*
Maurya, A. K., Singh, R., Veenadhari, B., Kumar, S., Cohen, M. B., Selvakumaran, R., Inan, U. S.
2012
 - **Very low latitude ($L = 1.08$) whistlers** *Geophysical Research Letters*
Singh, R., Cohen, M. B., Maurya, A. K., Veenadhari, B., Kumar, S., Pant, P., Inan, U. S.
2012
 - **Full Wave Modeling of VLF Wave Scattering and Propagation in Curvilinear Stratified Ionosphere** *International Conference on Electromagnetics in Advanced Applications (ICEAA) / IEEE-APS Topical Conference on Antennas and Propagation in Wireless Communications (IEEE APWC) / URSI Electromagnetic Environment and Interference Symposium (EEIS)*
Lehtinen, N. G., Bell, T. F., Qiu, L., Cohen, M. B., Inan, U. S.
IEEE.2012: 195–198
 - **Metamaterial Waveguide Model of a Return Stroke Channel** *International Conference on Electromagnetics in Advanced Applications (ICEAA) / IEEE-APS Topical Conference on Antennas and Propagation in Wireless Communications (IEEE APWC) / URSI Electromagnetic Environment and Interference Symposium (EEIS)*
Lehtinen, N. G., Cohen, M. B., Inan, U. S.
IEEE.2012: 194–194
 - **A 9mW Direct RF Sampling GPS Receiver Front-End in 0.13 μm BiCMOS** *IEEE International Symposium on Circuits and Systems*
Barth, C., Linscott, I. R., Inan, U. S.
IEEE.2012: 1287–1290

- **Transmitter-induced modulation of subionospheric VLF signals: Ionospheric heating rather than electron precipitation** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Graf, K. L., Inan, U. S., Spasojevic, M.
2011; 116
- **Modeling scattering from lightning-induced ionospheric disturbances with the discontinuous Galerkin method** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Foust, F. R., Spasojevic, M., Bell, T. F., Inan, U. S.
2011; 116
- **Design Framework for Soft-Error-Resilient Sequential Cells** *IEEE Radiation Effects Data Workshop (REDW)/48th IEEE International Nuclear and Space Radiation Effects Conference (NSREC)*
Lee, H. K., Lilja, K., Bounasser, M., Linscott, I., Inan, U.
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.2011: 3026–32
- **A tribute to Robert Helliwell (1920-2011)** *SPACE WEATHER-THE INTERNATIONAL JOURNAL OF RESEARCH AND APPLICATIONS*
Carpenter, D. L., Inan, U. S.
2011; 9
- **Longitudinal dependence of lightning-induced electron precipitation** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Cotts, B. R., Inan, U. S., Lehtinen, N. G.
2011; 116
- **D-region ionosphere response to the total solar eclipse of 22 July 2009 deduced from ELF-VLF tweek observations in the Indian sector** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Singh, R., Veenadhari, B., Maurya, A. K., Cohen, M. B., Kumar, S., Selvakumaran, R., PANT, P., Singh, A. K., Inan, U. S.
2011; 116
- **Cluster observations of whistler mode ducts and banded chorus** *GEOPHYSICAL RESEARCH LETTERS*
Haque, N., Inan, U. S., Bell, T. F., Pickett, J. S., Trotignon, J. G., Facsko, G.
2011; 38
- **The relationship between geophysical conditions and ELF amplitude in modulated heating experiments at HAARP: Modeling and experimental results** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Jin, G., Spasojevic, M., Cohen, M. B., Inan, U. S., Lehtinen, N. G.
2011; 116
- **Magnetospheric injection of ELF/VLF waves with modulated or steered HF heating of the lower ionosphere** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Cohen, M. B., Inan, U. S., Piddyachiy, D., Lehtinen, N. G., Golkowski, M.
2011; 116
- **DEMETER observations of ionospheric heating by powerful VLF transmitters** *GEOPHYSICAL RESEARCH LETTERS*
Bell, T. F., Graf, K., Inan, U. S., Piddyachiy, D., Parrot, M.
2011; 38
- **DEMETER observations of the ionospheric trough over HAARP in relation to HF heating experiments** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Piddyachiy, D., Bell, T. F., Berthelier, J., Inan, U. S., Parrot, M.
2011; 116
- **Discontinuous Galerkin particle-in-cell simulation of longitudinal plasma wave damping and comparison to the Landau approximation and the exact solution of the dispersion relation** *PHYSICS OF PLASMAS*
Foust, F. R., Bell, T. F., Spasojevic, M., Inan, U. S.
2011; 18 (6)
- **On the occurrence of ground observations of ELF/VLF magnetospheric amplification induced by the HAARP facility** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Golkowski, M., Cohen, M. B., Carpenter, D. L., Inan, U. S.
2011; 116

- **Determination of solar cycle variations of midlatitude ELF/VLF chorus and hiss via automated signal detection** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Golden, D. I., Spasojevic, M., Inan, U. S.
2011; 116
- **Estimation of global lightning activity and observations of atmospheric electric field** *ACTA GEOPHYSICA*
Golkowski, M., Kubicki, M., Cohen, M., Kulak, A., Inan, U. S.
2011; 59 (1): 183-204
- **A Double Notch RF Filter Architecture for SAW-less GPS Receivers** *IEEE International Symposium on Circuits and Systems (ISCAS)*
Barth, C., Linscott, I. R., Inan, U. S.
IEEE.2011: 1804–1807
- **Magnetospherically reflected, specularly reflected, and backscattered whistler mode radio-sounder echoes observed on the IMAGE satellite: 2. Sounding of electron density, ion effective mass, ion composition, and density irregularities** *Journal of Geophysical Research*
Sonwalkar, V. S., Reddy, A., Carpenter, D. L.
2011
- **A tribute to Robert Helliwell** *Space Weather*
Carpenter, D. L., Inan, U.
2011
- **Lightning development associated with two negative gigantic jets** *Geophysical Research Letters*
Inan, U., Lu, G., Cummer, S. A., Lyons, W. A., Krehbiel, P. R., Li, J.
2011
- **On the latitudinal extent of chorus emissions as observed by the Polar Plasma Wave Instrument** *Journal of Geophysical Research*
Inan, U., Bunch, N. L., Spasojevic, M., Shprits, Y. Y.
2011
- **Continuous ground-based multiwavelength airglow measurements** *Journal of Geophysical Research*
Inan, U., Marshall, R. A., Smith, S. A., Baumgardner, J., Chakrabarti, S.
2011
- **Optical signatures of lightning-induced electron precipitation** *Journal of Geophysical Research*
Inan, U., Marshall, R. A., Bortnik, J., Lehtinen, N., Chakrabarti, S.
2011
- **Confining the angular distribution of terrestrial gamma ray flash emission** *Journal of Geophysical Research*
Inan, U., Gjesteland, T., Østgaard, N., Collier, A. B., Carlson, B. E., Cohen, M. B.
2011
- **Magnetospherically reflected, specularly reflected, and backscattered whistler mode radio-sounder echoes observed on the IMAGE satellite: 1. Observations and interpretation** *Journal of Geophysical Research*
Inan, U., Sonwalkar, V. S., Carpenter, D. L., Reddy, A., Proddaturi, R., Hazra, S.
2011
- **Asymmetric V-shaped streaks recorded on board DEMETER satellite above powerful thunderstorms** *Journal of Geophysical Research*
Inan, U., El-Lemdani, M., Pincon, J. L., Parrot, M., De Feraudy, H., Lehtinen, N. G.
2011
- **Correspondence between a plasma-based EMIC wave proxy and subauroral proton precipitation** *Geophysical Research Letters*
Inan, U., Spasojevic, M., Blum, L. W., MacDonald, E. A., Fuselier, S. A., Golden, D. I.
2011
- **First satellite-imaging observation of medium-scale traveling ionospheric disturbances by FORMOSAT-2/ISUAL** *Geophysical Research Letters*
Inan, U., Adachi, T., Otsuka, Y., Yamaoka, M., Yamamoto, M., Shiokawa, K.
2011
- **Long-range lightning geolocation using a VLF radio atmospheric waveform bank** *JOURNAL OF GEOPHYSICAL RESEARCH-ATMOSPHERES*

-
- Said, R. K., Inan, U. S., Cummins, K. L.
2010; 115
- **Role of the plasmopause in dictating the ground accessibility of ELF/VLF chorus** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Golden, D. I., Spasojevic, M., Foust, F. R., Lehtinen, N. G., Meredith, N. P., Inan, U. S.
2010; 115
 - **Quasi-electrostatic whistler mode wave excitation by linear scattering of EM whistler mode waves from magnetic field-aligned density irregularities** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Foust, F. R., Inan, U. S., Bell, T., Lehtinen, N. G.
2010; 115
 - **Mitigation of 50-60 Hz power line interference in geophysical data** *RADIO SCIENCE*
Cohen, M. B., Said, R. K., Inan, U. S.
2010; 45
 - **Terrestrial gamma ray flash production by active lightning leader channels** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Carlson, B. E., Lehtinen, N. G., Inan, U. S.
2010; 115
 - **A lightning discharge producing a beam of relativistic electrons into space** *GEOPHYSICAL RESEARCH LETTERS*
Cohen, M. B., Inan, U. S., Said, R. K., Briggs, M. S., Fishman, G. J., Connaughton, V., Cummer, S. A.
2010; 37
 - **Propagation of whistler mode waves with a modulated frequency in the magnetosphere** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Streltsov, A. V., Golkowski, M., Inan, U. S., Papadopoulos, K. D.
2010; 115
 - **Optical signatures of radiation belt electron precipitation induced by ground-based VLF transmitters** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Marshall, R. A., Newsome, R. T., Lehtinen, N. G., Lavassar, N., Inan, U. S.
2010; 115
 - **On the generation of ELF/VLF waves for long-distance propagation via steerable HF heating of the lower ionosphere** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Cohen, M. B., Inan, U. S., Golkowski, M., Lehtinen, N. G.
2010; 115
 - **Free-running ground-based photometric array imaging of transient luminous events** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Newsome, R. T., Inan, U. S.
2010; 115
 - **Full-wave modeling of "early" VLF perturbations caused by lightning electromagnetic pulses** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Lehtinen, N. G., Marshall, R. A., Inan, U. S.
2010; 115
 - **A survey of ELF and VLF research on lightning-ionosphere interactions and causative discharges** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Inan, U. S., Cummer, S. A., Marshall, R. A.
2010; 115
 - **Two-dimensional frequency domain modeling of lightning EMP-induced perturbations to VLF transmitter signals** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Marshall, R. A., Inan, U. S.
2010; 115
 - **Drivers of chorus in the outer dayside magnetosphere** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Spasojevic, M., Inan, U. S.
2010; 115
 - **Neutron production in terrestrial gamma ray flashes** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*

- Carlson, B. E., Lehtinen, N. G., Inan, U. S.
2010; 115
- **Elves and associated electron density changes due to cloud-to-ground and in-cloud lightning discharges** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Marshall, R. A., Inan, U. S., Glukhov, V. S.
2010; 115
 - **Wave normal angles of magnetospheric chorus emissions observed on the Polar spacecraft** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Haque, N., Spasojevic, M., Santolik, O., Inan, U. S.
2010; 115
 - **Fluid simulation of the collisionless plasma sheath surrounding an electric dipole antenna in the inner magnetosphere** *RADIO SCIENCE*
Chevalier, T. W., Inan, U. S., Bell, T. F.
2010; 45
 - **Amplitude and phase of nonlinear magnetospheric wave growth excited by the HAARP HF heater** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Golkowski, M., Inan, U. S., Cohen, M. B., Gibby, A. R.
2010; 115
 - **Initial results from AWESOME VLF receivers: set up in low latitude Indian regions under IHY2007/UNBSSI program** *CURRENT SCIENCE*
Singh, R., Veenadhari, B., Cohen, M. B., PANT, P., Singh, A. K., Maurya, A. K., Vohat, P., Inan, U. S.
2010; 98 (3): 398-405
 - **ELF/VLF wave generation via ionospheric HF heating: Experimental comparison of amplitude modulation, beam painting, and geometric modulation** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Cohen, M. B., Inan, U. S., Golkowski, M., McCarrick, M. J.
2010; 115
 - **Geolocation of terrestrial gamma-ray flash source lightning** *GEOPHYSICAL RESEARCH LETTERS*
Cohen, M. B., Inan, U. S., Said, R. K., Gjestland, T.
2010; 37
 - **Sensitive Broadband ELF/VLF Radio Reception With the AWESOME Instrument** *IEEE TRANSACTIONS ON GEOSCIENCE AND REMOTE SENSING*
Cohen, M. B., Inan, U. S., Paschal, E. W.
2010; 48 (1): 3-17
 - **VLF observations of ionospheric disturbances in association with TLEs from the EuroSprite-2007 campaign** *Journal of Geophysical Research*
Umran, I., NaitAmor, S., AlAbdoaim, M. A., Cohen, M. B., Cotts, B., Soula, S.
2010
 - **Long-Range Lightning Geo-Location Using a VLF Radio Atmospheric Waveform Bank** *Journal of Geophysical Research*
Said, R. K., Inan, U., Cummins, K. L.
2010
 - **Terrestrial gamma ray flashes pinpointed (Editor's highlight on 2010-03)** *Geophysical Research Letters*
Inan, U.
2010
 - **Global estimates of plasmaspheric losses during moderate disturbance intervals** *Annales Geophysicae*
Inan, U., Spasojevic, M., Sandel, B. R.
2010
 - **Mitigation of 50–60 Hz power line interference in geophysical data** *Radio Science*
Cohen, M. B., Said, R. K., Inan, U.
2010
 - **More evidence for a one-to-one correlation between Sprites and Early VLF perturbations** *Journal of Geophysical Research*
Inan, U., Haldoupis, C., Amvrosiadi, N., Cotts, B. R., van, d., Velde, O. A.
2010

- **Decameter structure in heater-induced airglow at the High frequency Active Auroral Research Program facility** *Journal of Geophysical Research*
Inan, U., Kendall, E., Marshall, R., Parris, R. T., Bhatt, A., Coster, A.
2010
- **Full-wave modeling of “early” VLF perturbations caused by lightning electromagnetic pulses** *Journal of Geophysical Research*
Lehtinen, N. G., Marshall, R. A., Inan, U.
2010
- **Sensitive Broadband ELF/VLF Radio Reception With the AWESOME Instrumen** *IEEE Transactions on Geoscience and Remote Sensing*
Cohen, M. B., Inan, U., Paschal, E. W.
2010
- **Atmospheric physics: Bolt from the blue (Editor's highlight on 2010-03)** *Nature*
Inan, U.
2010
- **Observations of Terrestrial Gamma-Ray Flash Electrons** *American Institute of Physics Conference Series*
Carlson, B. E., Lehtinen, N. G., Inan, U.
2010
- **Midnight latitude-altitude distribution of 630 nm airglow in the Asian sector measured with FORMOSAT-2/ISUAL** *Journal of Geophysical Research*
Inan, U., Adachi, T., Yamaoka, M., Yamamoto, M., Otsuka, Y., Liu, H.
2010
- **LEAP: Layout Design through Error-Aware Transistor Positioning for Soft-Error Resilient Sequential Cell Design** *48TH Annual IEEE International Reliability Physics Symposium (IRPS)*
Lee, H. K., Lilja, K., Bounasser, M., Relangi, P., Linscott, I. R., Inan, U. S., Mitra, S.
IEEE.2010: 203–212
- **Magnetic Sensor Design for Femtotesla Low-Frequency Signals** *IEEE TRANSACTIONS ON GEOSCIENCE AND REMOTE SENSING*
Harriman, S. K., Paschal, E. W., Inan, U. S.
2010; 48 (1): 396-402
- **Penetration of lightning MF signals to the upper ionosphere over VLF ground-based transmitters** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Parrot, M., Inan, U. S., Lehtinen, N. G., Pincon, J. L.
2009; 114
- **Terrestrial gamma ray flash production by lightning current pulses** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Carlson, B. E., Lehtinen, N. G., Inan, U. S.
2009; 114
- **Observations of Earth space by self-powered stations in Antarctica** *REVIEW OF SCIENTIFIC INSTRUMENTS*
Mende, S. B., Rachelson, W., Sterling, R., Frey, H. U., Harris, S. E., McBride, S., Rosenberg, T. J., Detrick, D., Doolittle, J. L., Engebretson, M., Inan, U., LaBelle, J. W., LANZEROTTI, et al
2009; 80 (12)
- **Seasonal dependence of energetic electron precipitation: Evidence for a global role of lightning** *GEOPHYSICAL RESEARCH LETTERS*
Gemelos, E. S., Inan, U. S., Walt, M., Parrot, M., Sauvaud, J. A.
2009; 36
- **On remote sensing of transient luminous events' parent lightning discharges by ELF/VLF wave measurements on board a satellite** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Lefeuvre, F., Marshall, R., Pincon, J. L., Inan, U. S., Lagoutte, D., Parrot, M., Berthelier, J. J.
2009; 114
- **Effect of frequency modulation on whistler mode waves in the magnetosphere** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Streltsov, A. V., Golkowski, M., Inan, U. S., Papadopoulos, K. D.
2009; 114

- **Cross modulation of whistler mode and HF waves above the HAARP ionospheric heater** *GEOPHYSICAL RESEARCH LETTERS*
Golkowski, M., Inan, U. S., Cohen, M. B.
2009; 36
- **Relationship between electrojet current strength and ELF signal intensity in modulated heating experiments** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Jin, G., Spasojevic, M., Inan, U. S.
2009; 114
- **High-Frame-Rate Reconstruction of a Dynamic 2-D Scene From Continuous Orthogonal Projections** *IEEE TRANSACTIONS ON GEOSCIENCE AND REMOTE SENSING*
Newsome, R., Inan, U.
2009; 47 (8): 2646-2657
- **DEMETER observations of transmitter-induced precipitation of inner radiation belt electrons** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Graf, K. L., Inan, U. S., Piddyachiy, D., Kulkarni, P., Parrot, M., Sauvaud, J. A.
2009; 114
- **Modeling of Doppler-shifted terrestrial VLF transmitter signals observed by DEMETER** *GEOPHYSICAL RESEARCH LETTERS*
Starks, M. J., Bell, T. F., Quinn, R. A., Inan, U. S., Piddyachiy, D., Parrot, M.
2009; 36
- **Source regions of banded chorus** *GEOPHYSICAL RESEARCH LETTERS*
Bell, T. F., Inan, U. S., Haque, N., Pickett, J. S.
2009; 36
- **Diurnal dependence of ELF/VLF hiss and its relation to chorus at L=2.4** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Golden, D. I., Spasojevic, M., Inan, U. S.
2009; 114
- **Very Low Frequency Remote Sensing Measurements of the Lower Ionosphere at Site of the United Arab Emirates** *European General Assembly on International Heliophysics Year*
Al-Naimiy, H. M., Al-Douri, A. A., Alnajjar, A. A., Inan, U.
SPRINGER.2009: 189–93
- **Propagation of unducted whistlers from their source lightning: A case study** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Santolik, O., Parrot, M., Inan, U. S., Buresova, D., Gurnett, D. A., Chum, J.
2009; 114
- **Reply to comment by R. C. Moore and M. T. Rietveld on "Geometric modulation: A more effective method of steerable ELF/VLF wave generation with continuous HF heating of the lower ionosphere"** *GEOPHYSICAL RESEARCH LETTERS*
Cohen, M. B., Inan, U. S., Golkowski, M. A.
2009; 36
- **Full-wave modeling of transionospheric propagation of VLF waves** *GEOPHYSICAL RESEARCH LETTERS*
Lehtinen, N. G., Inan, U. S.
2009; 36
- **PENGUIn multi-instrument observations of dayside high-latitude injections during the 23 March 2007 substorm** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Lessard, M. R., Weatherwax, A. T., Spasojevic, M., Inan, U. S., Gerrard, A., Lanzerotti, L., Ridley, A., Engebretson, M. J., PETIT, N. J., Clauer, R., LaBelle, J., Mende, S. B., Frey, et al
2009; 114
- **Temporal evolution of proton precipitation associated with the plasmaspheric plume** *Journal of Geophysical Research (Space Physics)*
Inan, U., Spasojevic, M., Fuselier, A.
2009
- **Observations of Terrestrial Gamma-Ray Flash Electrons**
Carlson, B. E., Lehtinen, N. G., Inan, U. S., Crosby, N. B., Huang, T. Y., Rycroft, M. J.

AMER INST PHYSICS.2009: 84-91

- **Reply to comment by R. C. Moore and M. T. Rietveld on ``Geometric modulation: A more effective method of steerable ELF/VLF wave generation with continuous HF heating of the lower ionosphere** *Geophysical Research Letters*
Cohen, M. B., Inan, U., Golkowski, M. A.
2009
- **Advances in Plasmaspheric Wave Research with CLUSTER and IMAGE Observations** *Space Science Reviews*
Inan, U., Masson, A., Santolucchi, O., Carpenter, D. L., Darrouzet, F., Décréau, P. M.
2009
- **First observations of X-mode suppression of O-mode HF enhancements at 6300 Hz** *Geophysical Research Letters*
Inan, U., Gustavsson, B., Newsome, R., Leyser, T. B., Kosch, M. J., Norin, L.
2009
- **Diurnal dependence of ELF/VLF hiss and its relation to chorus at L = 2.4** *Journal of Geophysical Research (Space Physics)*
Golden, D. I., Spasojevic, M., Inan, U.
2009
- **Electric Fields and Magnetic Fields in the Plasmasphere: A Perspective From CLUSTER and IMAGE** *Space Science Reviews*
Inan, U., Matsui, H., Foster, J. C., Carpenter, D. L., Dandouras, I., Darrouzet, F.
2009
- **Estimating lightning current moment waveforms from satellite optical measurements** *Geophysical Research Letters*
Inan, U., Adachi, T., Cummer, S. A., Li, J., Takahashi, Y., Hsu, R. R.
2009
- **CLUSTER and IMAGE: New Ways to Study the Earth's Plasmasphere** *Space Science Reviews*
Inan, U., deKeyser, J., Carpenter, D. L., Darrouzet, F., Gallagher, D. L., Tu, J.
2009
- **Plasmaspheric Density Structures and Dynamics: Properties Observed by the CLUSTER and IMAGE Missions** *Space Science Reviews*
Inan, U., Darrouzet, F., Gallagher, D. L., André, N., Carpenter, D. L., Dandouras, I.
2009
- **Distributing space weather monitoring instruments and educational materials worldwide for IHY 2007: The AWESOME and SID project** *ADVANCES IN SPACE RESEARCH*
Scherrer, D., Cohen, M., Hoeksema, T., Inan, U., Mitchell, R., Scherrer, P.
2008; 42 (11): 1777-1785
- **HF signatures of powerful lightning recorded on DEMETER** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Parrot, M., Inan, U., Lehtinen, N., Blanc, E., Pincon, J. L.
2008; 113 (A11)
- **A novel technique for remote sensing of thunderstorm electric fields via the Kerr effect and sky polarization** *GEOPHYSICAL RESEARCH LETTERS*
Carlson, B. E., Inan, U. S.
2008; 35 (22)
- **Saturation effects in the VLF-triggered emission process** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Gibby, A. R., Inan, U. S., Bell, T. F.
2008; 113 (A11)
- **Early VLF perturbations caused by lightning EMP-driven dissociative attachment** *GEOPHYSICAL RESEARCH LETTERS*
Marshall, R. A., Inan, U. S., Chevalier, T. W.
2008; 35 (21)
- **Nonlinear interaction of energetic electrons with large amplitude chorus** *GEOPHYSICAL RESEARCH LETTERS*
Bortnik, J., Thorne, R. M., Inan, U. S.
2008; 35 (21)
- **Fast Photometric Imaging Using Orthogonal Linear Arrays** *IEEE TRANSACTIONS ON GEOSCIENCE AND REMOTE SENSING*

-
- Marshall, R., Newsome, R., Inan, U.
2008; 46 (11): 3885-3893
- **V-shaped VLF streaks recorded on DEMETER above powerful thunderstorms** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Parrot, M., Inan, U. S., Lehtinen, N. G.
2008; 113 (A10)
 - **DEMETER observations of an intense upgoing column of ELF/VLF radiation excited by the HAARP HF heater** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Piddyachiy, D., Inan, U. S., Bell, T. F., Lehtinen, N. G., Parrot, M.
2008; 113 (A10)
 - **Runaway relativistic electron avalanche seeding in the Earth's atmosphere** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Carlson, B. E., Lehtinen, N. G., Inan, U. S.
2008; 113 (A10)
 - **Effects of plasma density irregularities on the pitch angle scattering of radiation belt electrons by signals from ground based VLF transmitters** *GEOPHYSICAL RESEARCH LETTERS*
Bell, T. F., Inan, U. S., Piddyachiy, D., Kulkarni, P., Parrot, M.
2008; 35 (19)
 - **Magnetospheric amplification and emission triggering by ELF/VLF waves injected by the 3.6 MW HAARP ionospheric heater** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Golkowski, M., Inan, U. S., Gibby, A. R., Cohen, M. B.
2008; 113 (A10)
 - **Energetic electron precipitation induced by space based VLF transmitters** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Kulkarni, P., Inan, U. S., Bell, T. F.
2008; 113 (A9)
 - **Multistation observations of ELF/VLF whistler mode chorus** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Golkowski, M., Inan, U. S.
2008; 113 (A8)
 - **Terminal impedance and antenna current distribution of a VLF electric dipole in the inner magnetosphere** *IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION*
Chevalier, T. W., Inan, U. S., Bell, T. F.
2008; 56 (8): 2454-2468
 - **Precipitation signatures of ground-based VLF transmitters** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Kulkarni, P., Inan, U. S., Bell, T. F., Bortnik, J.
2008; 113 (A7)
 - **Geometric modulation: A more effective method of steerable ELF/VLF wave generation with continuous HF heating of the lower ionosphere** *GEOPHYSICAL RESEARCH LETTERS*
Cohen, M. B., Inan, U. S., Golkowski, M. A.
2008; 35 (12)
 - **Radiation of ELF/VLF waves by harmonically varying currents into a stratified ionosphere with application to radiation by a modulated electrojet** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Lehtinen, N. G., Inan, U. S.
2008; 113 (A6)
 - **Orientation of the HAARP ELF ionospheric dipole and the auroral electrojet** *GEOPHYSICAL RESEARCH LETTERS*
Cohen, M. B., Golkowski, M., Inan, U. S.
2008; 35 (2)
 - **Observations of artificial and natural optical emissions at the HAARP facility** *Annales Geophysicae*
Inan, U., Pedersen, T., Esposito, R., Kendall, E., Sentman, D., Kosch, M.
2008

- **Nonlinear interaction of energetic electrons with large amplitude chorus** *Geophysical Research Letters*
Bortnik, J., Thorne, R. M., Inan, U.
2008
- **Highlights Of RPI Sounding Of The Plasmasphere And Polar Regions At Frequencies In The Whistler And Z-Mode Domains** *Radio Sounding and Plasma Physics*
Inan, U., Carpenter, D. L.
2008
- **Production altitude and time delays of the terrestrial gamma flashes: Revisiting the Burst and Transient Source Experiment spectra** *Journal of Geophysical Research (Space Physics)*
Inan, U., Ostgaard, N., Gjestland, T., Stadsnes, J., Connell, P. H., Carlson, B. E.
2008
- **A quantitative comparison of lightning-induced electron precipitation and VLF signal perturbations** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Peter, W. B., Inan, U. S.
2007; 112 (A12)
- **HF modulated ionospheric currents** *GEOPHYSICAL RESEARCH LETTERS*
Payne, J. A., Inan, U. S., Foust, F. R., Chevalier, T. W., Bell, T. F.
2007; 34 (23)
- **Very low frequency sferic bursts, sprites, and their association with lightning activity** *JOURNAL OF GEOPHYSICAL RESEARCH-ATMOSPHERES*
Marshall, R. A., Inan, U. S., Lyons, W. A.
2007; 112 (D22)
- **Remote sensing of ionospheric disturbances associated with energetic particle precipitation using the South Pole VLF beacon** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Chevalier, M. W., Peter, W. B., Inan, U. S., Bell, T. F., Spasojevic, M.
2007; 112 (A11)
- **VLF observation of long ionospheric recovery events** *GEOPHYSICAL RESEARCH LETTERS*
Cotts, B. R., Inan, U. S.
2007; 34 (14)
- **ELF waves generated by modulated HF heating of the auroral electrojet and observed at a ground distance of similar to 4400 km** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Moore, R. C., Inan, U. S., Bell, T. F., Kennedy, E. J.
2007; 112 (A5)
- **Constraints on terrestrial gamma ray flash production from satellite observation** *GEOPHYSICAL RESEARCH LETTERS*
Carlson, B. E., Lehtinen, N. G., Inan, U. S.
2007; 34 (8)
- **Massive disturbance of the daytime lower ionosphere by the giant gamma-ray flare from magnetar SGR 1806-20** *GEOPHYSICAL RESEARCH LETTERS*
Inan, U. S., Lehtinen, N. G., Moore, R. C., Hurley, K., Boggs, S., Smith, D. M., Fishman, G. J.
2007; 34 (8)
- **Possible persistent ionization caused by giant blue jets** *GEOPHYSICAL RESEARCH LETTERS*
Lehtinen, N. G., Inan, U. S.
2007; 34 (8)
- **DEMETER satellite observations of lightning-induced electron precipitation** *GEOPHYSICAL RESEARCH LETTERS*
Inan, U. S., Piddyachiy, D., Peter, W. B., Sauvaud, J. A., Parrot, M.
2007; 34 (7)
- **Possible direct cloud-to-ionosphere current evidenced by sprite-initiated secondary TLEs** *GEOPHYSICAL RESEARCH LETTERS*
Marshall, R. A., Inan, U. S.
2007; 34 (5)

- **Subionospheric VLF observations of transmitter-induced precipitation of inner radiation belt electrons** *GEOPHYSICAL RESEARCH LETTERS*
Inan, U. S., Golkowski, M., Casey, M. K., Moore, R. C., PETER, W., Kulkarni, P., Kossey, P., Kennedy, E., Meth, S., Smit, P.
2007; 34 (2)
- **Finite difference frequency domain (FDFD) modeling of trans-ionospheric propagation of VLF signals over long sub-ionospheric paths** *IEEE Antennas-and-Propagation-Society International Symposium*
Inan, U. S., Foust, F., Chevalier, T., Chevalier, M., Bell, T. F.
IEEE.2007: 1863–1866
- **Modeling the electromagnetic ion cyclotron wave-induced formation of detached subauroral proton arcs** *Journal of Geophysical Research (Space Physics)*
Inan, U., Jordanova, V. K., Spasojevic, M., Thomsen, M. F.
2007
- **Chung Park, pioneer of magnetosphere ionosphere coupling research** *Journal of Atmospheric and Solar-Terrestrial Physics*
Inan, U., Carpenter, D. L.
2007
- **Proton cyclotron echoes and a new resonance observed by the RadioPlasma Imager instrument on the IMAGE satellite** *Journal of Geophysical Research (Space Physics)*
Inan, U., Carpenter, D. L., Bell, T. F., Chen, D., Ng, D., Baran, C.
2007
- **Massive disturbance of the daytime lower ionosphere by the giant $\{\gamma\}$ -ray flare from magnetar SGR** *Geophysical Research Letters*
Inan, U., Lehtinen, N. G., Moore, R. C., Hurley, K., Boggs, S., Smith, D. M.
2007: 1806-20
- **ELF waves generated by modulated HF heating of the auroral electrojet and observed at a ground distance of ~ 4400 km** *Journal of Geophysical Research (Space Physics)*
Moore, R. C., Inan, U., Bell, T. F., Kennedy, E. J.
2007
- **Preface: Global Aspects of Magnetosphere-Ionosphere Coupling** *Journal of Atmospheric and Terrestrial Physics*
Inan, U., Spasojevic, M., Goldstein, J., Strangeway, J.
2007
- **Terrestrial gamma ray flashes observed aboard the compton gamma ray observatory/burst and transient source experiment and ELF/VLF radio atmospherics** *JOURNAL OF GEOPHYSICAL RESEARCH-ATMOSPHERES*
Cohen, M. B., Inan, U. S., Fishman, G.
2006; 111 (D24)
- **A TID and SET radiation-hardened, wideband, low-noise amplifier** *IEEE TRANSACTIONS ON NUCLEAR SCIENCE*
Mossawir, B., Linscott, I. R., Inan, U. S., Roeder, J. L., Osborn, J. V., Witczak, S. C., King, E. E., LaLumondiere, S. D.
2006; 53 (6): 3439-3448
- **"Early/slow" events: A new category of VLF perturbations observed in relation with sprites** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Haldoupis, C., Steiner, R. J., Mika, A., Shalimov, S., Marshall, R. A., Inan, U. S., Bosinger, T., Neubert, T.
2006; 111 (A11)
- **Characterization of terminal impedance and radiation properties of a horizontal VLF antenna over Antarctic ice** *RADIO SCIENCE*
Chevalier, T. W., Inan, U. S., Bell, T. F.
2006; 41 (6)
- **Whistler mode illumination of the plasmaspheric resonant cavity via in situ injection of ELF/VLF waves** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Kulkarni, P., Inan, U. S., Bell, T. F.
2006; 111 (A10)
- **On the association of early/fast very low frequency perturbations with sprites and rare examples of VLF backscatter** *JOURNAL OF GEOPHYSICAL RESEARCH-ATMOSPHERES*
Marshall, R. A., Inan, U. S., Lyons, W. A.

2006; 111 (D19)

- **High-speed measurements of small-scale features in sprites: Sizes and lifetimes** *RADIO SCIENCE*
Marshall, R. A., Inan, U. S.
2006; 41 (6)
- **Rapidly moving sources of upper band ELF/VLF chorus near the magnetic equator** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Platino, M., Inan, U. S., Bell, T. F., Pickett, J. S., Canu, P.
2006; 111 (A9)
- **Terrestrial gamma ray flashes and lightning discharges** *GEOPHYSICAL RESEARCH LETTERS*
Inan, U. S., Cohen, M. B., Said, R. K., Smith, D. M., Lopez, L. I.
2006; 33 (18)
- **DEMETER observations of ELF waves injected with the HAARP HF transmitter** *GEOPHYSICAL RESEARCH LETTERS*
Platino, M., Inan, U. S., Bell, T. F., Parrot, M., Kennedy, E. J.
2006; 33 (16)
- **Observations of the relationship between sprite morphology and in-cloud lightning processes** *JOURNAL OF GEOPHYSICAL RESEARCH-ATMOSPHERES*
van der Velde, O. A., Mika, A., Soula, S., Haldoupis, C., Neubert, T., Inan, U. S.
2006; 111 (D15)
- **A PML utilizing k-vector information as applied to the whistler mode in a magnetized plasma** *IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION*
Chevalier, M. W., Chevalier, T. W., Inan, U. S.
2006; 54 (8): 2424-2429
- **Observations of amplitude saturation in ELF/VLF wave generation by modulated HF heating of the auroral electrojet** *GEOPHYSICAL RESEARCH LETTERS*
Moore, R. C., Inan, U. S., Bell, T. F.
2006; 33 (12)
- **Current distribution of a VLF electric dipole antenna in the plasmasphere** *RADIO SCIENCE*
Bell, T. F., Inan, U. S., Chevalier, T.
2006; 41 (2)
- **Perturbations of midlatitude subionospheric VLF signals associated with lower ionospheric disturbances during major geomagnetic storms** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Peter, W. B., Chevalier, M. W., Inan, U. S.
2006; 111 (A3)
- **Temporal signatures of radiation belt electron precipitation induced by lightning-generated MR whistler waves: 2. Global signatures** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Bortnik, J., Inan, U. S., Bell, T. F.
2006; 111 (A2)
- **Temporal signatures of radiation belt electron precipitation induced by lightning-generated MR whistler waves: 1. Methodology** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Bortnik, J., Inan, U. S., Bell, T. F.
2006; 111 (A2)
- **Landau damping and resultant unidirectional propagation of chorus waves** *GEOPHYSICAL RESEARCH LETTERS*
Bortnik, J., Inan, U. S., Bell, T. F.
2006; 33 (3)
- **A technique for efficiently modeling long-path propagation for use in both FDFD and FDTD** *IEEE ANTENNAS AND WIRELESS PROPAGATION LETTERS*
Chevalier, M. W., Inan, U. S.
2006; 5: 525-528
- **On the association of early/fast very low frequency perturbations with sprites and rare examples of VLF backscatter** *Journal of Geophysical Research (Atmospheres)*
Marshall, R. A., Inan, U., Lyons, A.

2006

- **High-speed measurements of small-scale features in sprites: Sizes and lifetimes** *Radio Science*
Marshall, R. A., Inan, U.
2006
- **“Early/slow” events: A new category of VLF perturbations observed in relation with sprites** *Journal of Geophysical Research (Space Physics)*
Haldoupis, C., Steiner, R. J., Mika, A., Shalimov, S., Marshall, R. A., Inan, U.
2006
- **Active Wave Experiments in Space Plasmas: The Z Mode** *Geospace Electromagnetic Waves and Radiation*
Inan, U., Benson, R. F., Webb, A., Green, J. L., Carpenter, D. L., Sonwalkar, V. S.
2006
- **Landau damping and resultant unidirectional propagation of chorus waves** *Geophysical Research Letters*
Bortnik, J., Inan, U., Bell, T. F.
2006
- **Early VLF perturbations observed in association with elves** *Annales Geophysicae*
Inan, U., Mika, A., Haldoupis, C., Neubert, T., Su, H. T., Hsu, R.
2006
- **A TID and SEE Radiation-Hardened, Wideband, Low-Noise Amplifier** *IEEE Transactions on Nuclear Science*
Mossawir, B., Linscott, I. R., Inan, U., Roeder, J. L., Osborn, J. V., Witezak, S. C.
2006
- **Global Aspects of Magnetosphere-Ionosphere Coupling** *EOS Transactions*
Inan, U., Goldstein, J., Spasojevic, M., Fuselier, S.
2006
- **Ground based VLF observations near L=2.5 during the Halloween 2003 storm** *GEOPHYSICAL RESEARCH LETTERS*
Spasojevic, M., Inan, U. S.
2005; 32 (21)
- **Subionospheric VLF signatures and their association with sprites observed during EuroSprite 2003** *JOURNAL OF ATMOSPHERIC AND SOLAR-TERRESTRIAL PHYSICS*
Mika, A., Haldoupis, C., Marshall, R. A., Neubert, T., Inan, U. S.
2005; 67 (16): 1580-1597
- **Production of terrestrial gamma-ray flashes by an electromagnetic pulse from a lightning return stroke** *GEOPHYSICAL RESEARCH LETTERS*
Inan, U. S., Lehtinen, N. G.
2005; 32 (19)
- **Wave acceleration of electrons in the Van Allen radiation belts** *NATURE*
Horne, R. B., Thorne, R. M., Shprits, Y. Y., Meredith, N. P., Glauert, S. A., SMITH, A. J., Kanekal, S. G., Baker, D. N., Engebretson, M. J., Posch, J. L., Spasojevic, M., Inan, U. S., Pickett, et al
2005; 437 (7056): 227-230
- **Electron precipitation events driven by lightning in hurricanes** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Peter, W. B., Inan, U. S.
2005; 110 (A5)
- **Thermohaline circulation at three key sections in the North Atlantic over 1985-2002** *GEOPHYSICAL RESEARCH LETTERS*
Marsh, R., de Cuevas, B. A., Coward, A. C., Bryden, H. L., Alvarez, M.
2005; 32 (10)
- **Co-ordinated observations of transient luminous events during the EuroSprite2003 campaign** *1st General Meeting of the European-Geosciences-Union*
Neubert, T., Allin, T. H., Blanc, E., Farges, T., Haldoupis, C., Mika, A., Soula, S., KNUTSSON, L., van der Velde, O., Marshall, R. A., Inan, U., Satori, G., Bor, et al
PERGAMON-ELSEVIER SCIENCE LTD.2005: 807-20

- **Streamers and diffuse glow observed in upper atmospheric electrical discharges** *IEEE TRANSACTIONS ON PLASMA SCIENCE*
Gerken, E., Inan, U.
2005; 33 (2): 282-283
- **From Alaska to the South Pacific in one hop - Stanford University, radioscience and ocean engineering merge in the Southern Pacific Ocean to study electromagnetic waves** *SEA TECHNOLOGY*
Cole, R., Reddell, N., Inan, U.
2005; 46 (4): 27-?
- **Simulation of self-erase discharge waveforms in plasma display panels** *IEEE TRANSACTIONS ON PLASMA SCIENCE*
Veronis, G., Inan, U. S.
2005; 33 (2): 516-517
- **Whistlers observed by the Cluster spacecraft outside the plasmasphere** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Platino, M., Inan, U. S., Bell, T. F., Gurnett, D. A., Pickett, J. S., Canu, P., Decreau, P. M.
2005; 110 (A3)
- **High-speed telescopic imaging of sprites** *GEOPHYSICAL RESEARCH LETTERS*
Marshall, R. A., Inan, U. S.
2005; 32 (5)
- **Atmospheric science - Gamma rays made on Earth** *SCIENCE*
Inan, U.
2005; 307 (5712): 1054-1055
- **Improvement of the efficiency of plasma display panels by combining waveform and cell geometry design** *IEEE TRANSACTIONS ON PLASMA SCIENCE*
Veronis, G., Inan, U. S.
2005; 33 (1): 147-156
- **Optical observations geomagnetically conjugate to sprite-producing lightning discharges** *ANNALES GEOPHYSICAE*
Marshall, R. A., Inan, U. S., Neubert, T., Hughes, A., Satori, G., Bor, J., Collier, A., Allin, T. H.
2005; 23 (6): 2231-2237
- **Afternoon subauroral proton precipitation resulting from ring current - plasmasphere interaction, Inner Magnetosphere Interactions: New Perspectives from Imaging** *AGU Geophysical Monograph*
Inan, U., Spasojevic, M., Thomsen, F., Chi, P. J., Sandel, B. R.
2005
- **Production of terrestrial gamma-ray flashes by an electromagnetic pulse from a lightning return stroke** *Geophysical Research Letters*
Inan, U., Lehtinen, N. G.
2005
- **Ground based VLF observations near L = 2.5 during the Halloween 2003 storm** *Geophysical Research Letters*
Spasojevic, M., Inan, U.
2005
- **Subionospheric VLF signatures and their association with sprites observed during EuroSprite-2003** *Journal of Atmospheric and Solar-Terrestrial Physics*
Mika, A., Haldoupis, C., Marshall, R. A., Neubert, T., Inan, U.
2005
- **Subionospheric VLF measurements of the effects of geomagnetic storms on the mid-latitude D-region**
Peter, W. B., Chevalier, M. W., Inan, U.
2005
- **Artificial optical emissions at HAARP for pump frequencies near the third and second electron gyro-harmonic** *Annales Geophysicae*
Inan, U., Kosch, M. J., Pedersen, T., Hughes, J., Marshall, R. A., Gerken, E.
2005
- **Co-ordinated observations of transient luminous events during the EuroSprite2003 campaign** *Journal of Atmospheric and Solar-Terrestrial Physics*
Inan, U., Neubert, T., Allin, H., Blanc, E., Farges, T., Haldoupis, C.

2005

- **Multi-hop whistler-mode ELF/VLF signals and triggered emissions excited by the HAARP HF heater** *GEOPHYSICAL RESEARCH LETTERS*
Inan, U. S., Golkowski, M., Carpenter, D. L., Reddell, N., Moore, R. C., Bell, T. F., Paschal, E., Kossey, P., Kennedy, E., Meth, S. Z.
2004; 31 (24)
- **On the occurrence and spatial extent of electron precipitation induced by oblique nonducted whistler waves** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Peter, W. B., Inan, U. S.
2004; 109 (A12)
- **Diagnostics of magnetospheric electron density and irregularities at altitudes < 5000 km using whistler and Z mode echoes from radio sounding on the IMAGE satellite** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Sonwalkar, V. S., Carpenter, D. L., Bell, T. F., Spasojevic, M., Inan, U. S., Li, J., Chen, X., Venkatasubramanian, A., Harikumar, J., Benson, R. F., Taylor, W. W., Reinisch, B. W.
2004; 109 (A11)
- **Localization of individual lightning discharges via directional and temporal triangulation of sferic measurements at two distant sites** *JOURNAL OF GEOPHYSICAL RESEARCH-ATMOSPHERES*
Wood, T. G., Inan, U. S.
2004; 109 (D21)
- **Subionospheric early VLF signal perturbations observed in one-to-one association with sprites** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Haldoupis, C., Neubert, T., Inan, U. S., Mika, A., Allin, T. H., Marshall, R. A.
2004; 109 (A10)
- **Toward regional-scale modeling using the two-way nested global model TM5: Characterization of transport using SF6** *JOURNAL OF GEOPHYSICAL RESEARCH-ATMOSPHERES*
Peters, W., Krol, M. C., Dlugokencky, E. J., Dentener, F. J., Bergamaschi, P., Dutton, G., von Velthoven, P., Miller, J. B., Bruhwiler, L., Tans, P. P.
2004; 109 (D19)
- **A PML using a convolutional curl operator and a numerical reflection coefficient for general linear media** *IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION*
Chevalier, M. W., Inan, U. S.
2004; 52 (7): 1647-1657
- **Latitudinal and seasonal variations of quasiperiodic and periodic VLF emissions in the outer magnetosphere** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Engebretson, M. J., Posch, J. L., Halford, A. J., Shelburne, G. A., Smith, A. J., Spasojevic, M., Inan, U. S., Arnoldy, R. L.
2004; 109 (A5)
- **Cluster measurements of rapidly moving sources of ELF/VLF chorus** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Inan, U. S., Platino, M., Bell, T. F., Gurnett, D. A., Pickett, J. S.
2004; 109 (A5)
- **CLUSTER observations of lower hybrid waves excited at high altitudes by electromagnetic whistler mode signals from the HAARP facility** *GEOPHYSICAL RESEARCH LETTERS*
Bell, T. F., Inan, U. S., Platino, M., Pickett, J. S., Kossey, P. A., Kennedy, E. J.
2004; 31 (6)
- **The link between a detached subauroral proton arc and a plasmaspheric plume** *GEOPHYSICAL RESEARCH LETTERS*
Spasojevic, M., Frey, H. U., Thomsen, M. F., Fuselier, S. A., Gary, S. P., Sandel, B. R., Inan, U. S.
2004; 31 (4)
- **Comparison of photometric measurements and charge moment estimations in two sprite-producing storms** *GEOPHYSICAL RESEARCH LETTERS*
Gerken, E. A., Inan, U. S.
2004; 31 (3)
- **Cluster observations of mid-latitude hiss near the plasmopause** *Meeting on Spatio-Temporal Analysis and Multipoint Measurements in Space*
Masson, A., Inan, U. S., Laakso, H., Santolik, O., Decreau, P.

COPERNICUS GESELLSCHAFT MBH.2004: 2565–75

- **Proton precipitation during magnetic storms in August through November 1998** *Journal of Geophysical Research (Space Physics)*
Inan, U., Walt, M., Voss, D.
2004
- **Remote sensing the Earth's plasmasphere** *Radio Science Bulletin*
Inan, U., Carpenter, D. L.
2004
- **The Plasmasphere Boundary Layer** *Annales Geophysicae*
Inan, U., Carpenter, D., Lemaire, J.
2004
- **Diagnostics of magnetospheric electron density and irregularities at altitudes <5000 km using whistler and Z mode echoes from radio sounding on the IMAGE satellite** *Journal of Geophysical Research (Space Physics)*
Sonwalkar, V. S., Carpenter, D. L., Bell, T. F., Spasojevic, M., Inan, U., Li, J.
2004
- **Simultaneous remote sensing and in situ observations of plasmaspheric drainage plumes** *Journal of Geophysical Research (Space Physics)*
Inan, U., Goldstein, J., Sandel, R., Thomsen, F., Spasojevic, M., Reiff, P. H.
2004
- **Cluster observations of ELF/VLF signals generated by modulated heating of the lower ionosphere with the HAARP HF transmitter** *Meeting on Spatio-Temporal Analysis and Multipoint Measurements in Space*
Platino, M., Inan, U. S., Bell, T. F., Pickett, J., Kennedy, E. J., Trotignon, J. G., Rauch, J. L., Canu, P.
COPERNICUS GESELLSCHAFT MBH.2004: 2643–53
- **Z-mode sounding within propagation "cavities" and other inner magnetospheric regions by the RPI instrument on the IMAGE satellite** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Carpenter, D. L., Bell, T. F., Inan, U. S., Benson, R. F., Sonwalkar, V. S., Reinisch, B. W., Gallagher, D. L.
2003; 108 (A12)
- **Early/fast VLF events produced by electron density changes associated with sprite halos** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Moore, R. C., Barrington-Leigh, C. P., Inan, U. S., Bell, T. F.
2003; 108 (A10)
- **Global response of the plasmasphere to a geomagnetic disturbance** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Spasojevic, M., Goldstein, J., Carpenter, D. L., Inan, U. S., Sandel, B. R., Moldwin, M. B., Reinisch, B. W.
2003; 108 (A9)
- **Ionospheric D region electron density profiles derived from the measured interference pattern of VLF waveguide modes** *RADIO SCIENCE*
Bainbridge, G., Inan, U. S.
2003; 38 (4)
- **Energy distribution and lifetime of magnetospherically reflecting whistlers in the plasmasphere** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Bortnik, J., Inan, U. S., Bell, T. F.
2003; 108 (A5)
- **Controlled precipitation of radiation belt electrons** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Inan, U. S., Bell, T. F., Bortnik, J., Albert, J. M.
2003; 108 (A5)
- **Observations of decameter-scale morphologies in sprites** *Conference on Sprites, Elves and Their Global Activities*
Gerken, E. A., Inan, U. S.
PERGAMON-ELSEVIER SCIENCE LTD.2003: 567–72
- **Frequency-time spectra of magnetospherically reflecting whistlers in the plasmasphere** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Bortnik, J., Inan, U. S., Bell, T. F.
2003; 108 (A1)

- **Magnetic zenith enhancement of HF radio-induced airglow production at HAARP** *Geophysical Research Letters*
Inan, U., Pedersen, T. R., McCarrick, M., Gerken, E. A., Selcher, C., Sentman, D.
2003
- **In situ and ground-based intercalibration measurements of plasma density at $L = 2.5$** *Journal of Geophysical Research (Space Physics)*
Inan, U., Clilverd, M. A., Menk, W., Milneviski, G., Sandel, B. R., Goldstein, J.
2003
- **Guided echoes in the magnetosphere: Observations by Radio Plasma Imager on IMAGE** *Geophysical Research Letters*
Inan, U., Fung, S. F., Benson, F., Carpenter, D. L., Green, J. L., Jayanti, V.
2003
- **Z-mode sounding within propagation "cavities" and other inner magnetospheric regions by the RPI instrument on the IMAGE satellite** *Journal of Geophysical Research (Space Physics)*
Carpenter, D. L., Bell, T. F., Inan, U., Benson, F., Sonwalkar, V. S., Reinisch, B. W.
2003
- **Identifying the plasmopause in IMAGE EUV data using IMAGE RPI in situ steep density gradients** *Journal of Geophysical Research (Space Physics)*
Inan, U., Goldstein, J., Spasojevic, M., Reiff, H., Sandel, B. R., Forrester, W. T.
2003
- **The causes of long-term change in the aa index** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Clilverd, M. A., Clark, T. D., Clarke, E., Rishbeth, H., Ulich, T.
2002; 107 (A12)
- **Source characteristics of ELF/VLF chorus** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Lauben, D. S., Inan, U. S., Bell, T. F., Gurnett, D. A.
2002; 107 (A12)
- **Lightning effects at high altitudes: sprites, elves, and terrestrial gamma ray flashes** *Meeting on the Physics of Thundercloud and Lightning Discharge*
Inan, U. S.
ELSEVIER FRANCE-EDITIONS SCIENTIFIQUES MEDICALES ELSEVIER.2002: 1411-21
- **Cell geometry designs for efficient plasma display panels** *JOURNAL OF APPLIED PHYSICS*
Veronis, G., Inan, U. S.
2002; 92 (9): 4897-4905
- **A survey of streamer and diffuse glow dynamics observed in sprites using telescopic imagery** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Gerken, E. A., Inan, U. S.
2002; 107 (A11)
- **Long-range tracking of thunderstorms using spheric measurements** *JOURNAL OF GEOPHYSICAL RESEARCH-ATMOSPHERES*
Wood, T. G., Inan, U. S.
2002; 107 (D21)
- **Small-scale field-aligned plasmaspheric density structures inferred from the Radio Plasma Imager on IMAGE** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Carpenter, D. L., Spasojevic, M. A., Bell, T. F., Inan, U. S., Reinisch, B. W., Galkin, I. A., Benson, R. F., Green, J. L., Fung, S. F., Boardsen, S. A.
2002; 107 (A9)
- **L dependence of energetic electron precipitation driven by magnetospherically reflecting whistler waves** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Bortnik, J., Inan, U. S., Bell, T. F.
2002; 107 (A8)
- **Determining the size of lightning-induced electron precipitation patches** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Clilverd, M. A., Nunn, D., Lev-Tov, S. J., Inan, U. S., Dowden, R. L., Rodger, C. J., Smith, A. J.
2002; 107 (A8)
- **The Landau damping of magnetospherically reflected whistlers within the plasmasphere** *GEOPHYSICAL RESEARCH LETTERS*

-
- Bell, T. F., Inan, U. S., Bortnik, J., Scudder, J. D.
2002; 29 (15)
- **A first approach to model the low-frequency wave activity in the plasmasphere** *ANNALES GEOPHYSICAE*
Andre, R., Lefeuvre, F., Simonet, F., Inan, U. S.
2002; 20 (7): 981-996
 - **Simulation studies of the coplanar electrode and other plasma display panel cell designs** *JOURNAL OF APPLIED PHYSICS*
Veronis, G., Inan, U. S.
2002; 91 (12): 9502-9512
 - **Exponential relaxation of optical emissions in sprites** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Barrington-Leigh, C. P., Pasko, V. P., Inan, U. S.
2002; 107 (A5)
 - **Electrical discharge from a thundercloud top to the lower ionosphere** *NATURE*
Pasko, V. P., Stanley, M. A., Mathews, J. D., Inan, U. S., Wood, T. G.
2002; 416 (6877): 152-154
 - **Electron precipitation coincident with ELF/VLF wave bursts** *Journal of Geophysical Research (Space Physics)*
Inan, U., Walt, M., Voss, D., Pickett, S.
2002
 - **Lightning effects at high altitudes: sprites, elves, and terrestrial gamma ray flashes** *Applied Physics*
Inan, U.
2002
 - **Observations of magnetospheric plasmas by the radio plasma imager (RPI) on the image mission** *Advances in Space Research*
Inan, U., Fung, S. F., Benson, F., Green, J. L., Reinisch, B. W., Haines, D. M.
2002
 - **Fine Structure of Sprites and Proposed Global Observations** *Space Weather Study Using Multipoint Techniques*
Mende, S. B., Frey, H. U., Rairden, L., Su, H. T., Hsu, R. R., Allin, T., Inan, U. S.
2002
 - **Precipitation of radiation belt electrons induced by obliquely propagating lightning-generated whistlers** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Lauben, D. S., Inan, U. S., Bell, T. F.
2001; 106 (A12): 29745-29770
 - **Lightning-induced energetic electron flux enhancements in the drift loss cone** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Blake, J. B., Inan, U. S., Walt, M., Bell, T. F., Bortnik, J., Chenette, D. L., Christian, H. J.
2001; 106 (A12): 29733-29744
 - **Effects of thunderstorm-driven runaway electrons in the conjugate hemisphere: Purple sprites, ionization enhancements, and gamma rays** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Lehtinen, N. G., Inan, U. S., Bell, T. F.
2001; 106 (A12): 28841-28856
 - **Wave normal and Poynting vector calculations using the Cassini radio and plasma wave instrument** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Hospodarsky, G. B., Averkamp, T. F., Kurth, W. S., Gurnett, D. A., Dougherty, M., Inan, U., Wood, T.
2001; 106 (A12): 30253-30269
 - **Mesosphere-troposphere coupling due to sprites** *GEOPHYSICAL RESEARCH LETTERS*
Pasko, V. P., Inan, U. S., Bell, T. F.
2001; 28 (19): 3821-3824
 - **First results from the Cluster wideband plasma wave investigation** *ANNALES GEOPHYSICAE*
Gurnett, D. A., Huff, R. L., Pickett, J. S., Persoon, A. M., Mutel, R. L., Christopher, I. W., Kletzing, C. A., Inan, U. S., Martin, W. L., Bougeret, J. L., Alleyne, H. S., Yearby, K. H.
-

2001; 19 (10-12): 1259-1272

- **Observations of relativistic electron microbursts in association with VLF chorus** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Lorentzen, K. R., Blake, J. B., Inan, U. S., Bortnik, J.
2001; 106 (A4): 6017-6027
- **Identification of sprites and elves with intensified video and broadband array photometry** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Barrington-Leigh, C. P., Inan, U. S., Stanley, M.
2001; 106 (A2): 1741-1750
- **He-Xe microdischarges: Comparison of simulation results with experimental data** *APPLIED PHYSICS LETTERS*
Veronis, G., Inan, U. S., Pasko, V. P.
2001; 78 (1): 25-27
- **The study of bulk plasma motions and associated electric fields in the plasmasphere by means of whistler-mode signals** *Journal of Atmospheric and Solar-Terrestrial Physics*
Inan, U., Carpenter, D. L., Smith, J.
2001
- **Diffusion of 155 to 430 keV protons in the Earth's radiation belt** *Journal of Geophysical Research*
Inan, U., Walt, M., Voss, D., Lev-Tov, J., Mobilia, J., Jahn, J. M.
2001
- **Lightning-induced energetic electron flux enhancements in the drift loss cone** *Journal of Geophysical Research*
Blake, G. B., Inan, U., Walt, M., Bell, T. F., Bortnik, J., Chenette, D. L.
2001
- **Losses of ring current ions by strong pitch angle scattering** *Geophysical Research Letters*
Inan, U., Walt, M., Voss, D.
2001
- **First results from the Radio Plasma Imager on IMAGE** *Geophysical Research Letters*
Inan, U., Reinisch, B. W., Huang, X., Haines, M., Galkin, I. A., Green, J. L.
2001
- **Multisatellite observations of rapid subauroral ion drifts (SAID)** *Journal of Geophysical Research*
Inan, U., Anderson, P. C., Carpenter, D. L., Tsuruda, K., Mukai, T., Rich, F. J.
2001
- **Effects of thunderstorm-driven runaway electrons in the conjugatehemisphere: Purple sprites, ionization enhancements, and gamma rays** *Journal of Geophysical Research*
Lehtinen, N. G., Inan, U., Bell, T. F.
2001
- **Whistler-mode wave-injection experiments in the plasmasphere with a radio sounder** *Journal of Atmospheric and Solar-Terrestrial Physics*
Inan, U., Sonwalkar, V. S., Chen, X., Harikumar, J., Carpenter, D. L., Bell, T. F.
2001
- **Ionospheric E region remote sensing with ELF radio atmospherics** *RADIO SCIENCE*
Cummer, S. A., Inan, U. S.
2000; 35 (6): 1437-1444
- **Telescopic imaging of sprites** *GEOPHYSICAL RESEARCH LETTERS*
Gerken, E. A., Inan, U. S., Barrington-Leigh, C. P.
2000; 27 (17): 2637-2640
- **Fundamental properties of inert gas mixtures for plasma display panels** *IEEE TRANSACTIONS ON PLASMA SCIENCE*
Veronis, G., Inan, U. S., Pasko, V. P.
2000; 28 (4): 1271-1279
- **Sferic clusters associated with early/fast VLF events** *GEOPHYSICAL RESEARCH LETTERS*

-
- Johnson, M. P., Inan, U. S.
2000; 27 (9): 1391-1394
- **Trapped energetic electron curtains produced by thunderstorm driven relativistic runaway electrons** *GEOPHYSICAL RESEARCH LETTERS*
Lehtinen, N. G., Inan, U. S., Bell, T. F.
2000; 27 (8): 1095-1098
 - **Modeling ELF radio atmospheric propagation and extracting lightning currents from ELF observations** *RADIO SCIENCE*
Cummer, S. A., Inan, U. S.
2000; 35 (2): 385-394
 - **Solar wind control of polar chorus** *GEOPHYSICAL RESEARCH LETTERS*
Salvati, M. A., Inan, U. S., Rosenberg, T. J., Weatherwax, A. T.
2000; 27 (5): 649-652
 - **Fractal structure of sprites** *GEOPHYSICAL RESEARCH LETTERS*
Pasko, V. P., Inan, U. S., Bell, T. F.
2000; 27 (4): 497-500
 - **Simultaneous triggered VLF emissions and energetic electron distributions observed on POLAR with PWI and HYDRA** *GEOPHYSICAL RESEARCH LETTERS*
Bell, T. F., Inan, U. S., Helliwell, R. A., Scudder, J. D.
2000; 27 (2): 165-168
 - **Recovery signatures and occurrence properties of lightning-associated subionospheric VLF perturbations** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Sampath, H. T., Inan, U. S., Johnson, M. P.
2000; 105 (A1): 183-191
 - **Triggering of whistler mode emissions by the band-limited impulse(BLI) associated with amplified Vlf signals from Siple Station, Antarctica** *Geophysical Research Letters*
Inan, U., Helliwell, R. A.
2000
 - **CRRES observations of density cavities inside the plasmasphere** *Journal of Geophysical Research*
Inan, U., Carpenter, D. L., Anderson, R., Calvert, W., Moldwin, M.
2000
 - **The Radio Plasma Imager investigation on the IMAGE spacecraft** *Space Science Reviews*
Inan, U., Reinisch, B. W., Haines, M., Bibl, K., Cheney, G., Galkin, I. A.
2000
 - **Investigations of irregularities in remote plasma regions by radio sounding: applications of the radio plasma imager on image** *Space Science Reviews*
Inan, U., Fung, S. F., Benson, F., Carpenter, D. L., Reinisch, B. W., Gallagher, D. L.
2000
 - **Radio plasma imager simulations and measurements** *Space Science Reviews*
Inan, U., Green, J. L., Benson, F., Fung, F., Taylor W, W. L., Boardsen, S. A.
2000
 - **Feasibility of a multisatellite investigation of the Earth's magnetosphere with radio tomography** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Ergun, R. E., Larson, D. E., Phan, T., Taylor, D., Bale, S., Carlson, C. W., Roth, I., Angelopoulos, V., Bell, T., Inan, U. S., Bougeret, J. L., Manning, R.
2000; 105 (A1): 361-373
 - **Sprites triggered by negative lightning discharges** *GEOPHYSICAL RESEARCH LETTERS*
Barrington-Leigh, C. P., Inan, U. S., Stanley, M., Cummer, S. A.
1999; 26 (24): 3605-3608
 - **Ionospheric effects of relativistic electron enhancement events** *GEOPHYSICAL RESEARCH LETTERS*
Demirkol, M. K., Inan, U. S., Bell, T. F., Kanekal, S. G., Wilkinson, D. C.

- 1999; 26 (23): 3557-3560
- **Subionospheric VLF signatures of oblique (nonducted) whistler-induced precipitation** *GEOPHYSICAL RESEARCH LETTERS*
Johnson, M. P., Inan, U. S., Lauben, D. S.
1999; 26 (23): 3569-3572
 - **Ionization of the lower ionosphere by gamma-rays from a magnetar: Detection of a low energy (3-10 keV) component** *GEOPHYSICAL RESEARCH LETTERS*
Inan, U. S., Lehtinen, N. G., Lev-Tov, S. J., Johnson, M. P., Bell, T. F., Hurley, K.
1999; 26 (22): 3357-3360
 - **Monte Carlo simulation of runaway MeV electron breakdown with application to red sprites and terrestrial gamma ray flashes** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Lehtinen, N. G., Bell, T. F., Inan, U. S.
1999; 104 (A11): 24699-24712
 - **Poleward-displaced electron precipitation from lightning-generated oblique whistlers** *GEOPHYSICAL RESEARCH LETTERS*
Lauben, D. S., Inan, U. S., Bell, T. F.
1999; 26 (16): 2633-2636
 - **Scattering pattern of lightning-induced ionospheric disturbances associated with early/fast VLF events** *GEOPHYSICAL RESEARCH LETTERS*
Johnson, M. P., Inan, U. S., Lev-Tov, S. J., Bell, T. F.
1999; 26 (15): 2363-2366
 - **Characteristics of mesospheric optical emissions produced by lightning discharges** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Veronis, G., Pasko, V. P., Inan, U. S.
1999; 104 (A6): 12645-56
 - **Mesospheric electric field transients due to tropospheric lightning discharges** *GEOPHYSICAL RESEARCH LETTERS*
Pasko, V. P., Inan, U. S., Bell, T. F.
1999; 26 (9): 1247-50
 - **ELF spheric energy as a proxy indicator for sprite occurrence** *GEOPHYSICAL RESEARCH LETTERS*
Reising, S. C., Inan, U. S., Bell, T. F.
1999; 26 (7): 987-90
 - **Elves triggered by positive and negative lightning discharges** *GEOPHYSICAL RESEARCH LETTERS*
Barrington-Leigh, C. P., Inan, U. S.
1999; 26 (6): 683-86
 - **Ionization of the lower ionosphere by γ -rays from a magnetar: Detection of a low energy (3-10 keV) component** *Geophysical Research Letters*
Inan, U., Lehtinen, N. G., Lev-Tov, J., Johnson, P., Bell, T. F., Hurley, K.
1999
 - **Elves triggered by positive and negative lightning discharges** *Geophysical Research Letters*
Barrington-Leigh, C. P., Inan, U.
1999
 - **Mesospheric electric field transients due to tropospheric lightning discharges** *Geophysical Research Letters*
Pasko, V. P., Inan, U., Bell, T. F.
1999
 - **Characteristics of mesospheric optical emissions produced by lightning discharges** *Journal of Geophysical Research*
Veronis, G., Pasko, V. P., Inan, U.
1999
 - **The correlation of rapid AKR variations with changes in the fluxes of precipitating electrons** *Advances in Space Research*
Inan, U., Imhof, W. L., Anderson, R., Chenette, L., Mobilia, J., Petrinec, S. M.
1999
 - **ELF spheric energy as a proxy indicator for sprite occurrence** *Geophysical Research Letters*

-
- Reising, S. C., Inan, U., Bell, T. F.
1999
- **Midlatitude particle and electric field effects at the onset of the November 1993 geomagnetic storm** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Foster, J. C., Cummer, S., Inan, U. S.
1998; 103 (A11): 26359-26366
 - **Ionospheric D region remote sensing using VLF radio atmospherics** *RADIO SCIENCE*
Cummer, S. A., Inan, U. S., Bell, T. F.
1998; 33 (6): 1781-92
 - **Periodic and quasiperiodic ELF/VLF emissions observed by an array of Antarctic stations** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Smith, A. J., Engebretson, M. J., Klatt, E. M., Inan, U. S., Arnoldy, R. L., Fukunishi, H.
1998; 103 (A10): 23611-22
 - **Mechanism of ELF radiation from sprites** *GEOPHYSICAL RESEARCH LETTERS*
Pasko, V. P., Inan, U. S., Bell, T. F., Reising, S. C.
1998; 25 (18): 3493-3496
 - **Low-frequency impulsive auroral hiss observations at high geomagnetic latitudes** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
LaBelle, J., Weatherwax, A. T., Perring, J., Walsh, E., Trimpi, M. L., Inan, U. S.
1998; 103 (A9): 20459-68
 - **VLF chorus emissions observed by POLAR during the January 10, 1997, magnetic cloud** *GEOPHYSICAL RESEARCH LETTERS*
Lauben, D. S., Inan, U. S., Bell, T. F., Kirchner, D. L., Hospodarsky, G. B., Pickett, J. S.
1998; 25 (15): 2995-2998
 - **Spatial structure of sprites** *GEOPHYSICAL RESEARCH LETTERS*
Pasko, V. P., Inan, U. S., Bell, T. F.
1998; 25 (12): 2123-2126
 - **Satellite observations of lightning-induced electron precipitation** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Voss, H. D., Walt, M., Imhof, W. L., Mobilia, J., Inan, U. S.
1998; 103 (A6): 11725-44
 - **Ionospheric effects due to electrostatic thundercloud fields** *JOURNAL OF ATMOSPHERIC AND SOLAR-TERRESTRIAL PHYSICS*
Pasko, V. P., Inan, U. S., Bell, T. F.
1998; 60 (7-9): 863-70
 - **Precipitation of radiation belt electrons by magnetospherically reflected whistlers** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Ristic-Djurovic, J. L., Bell, T. F., Inan, U. S.
1998; 103 (A5): 9249-60
 - **ELF radiation produced by electrical currents in sprites** *GEOPHYSICAL RESEARCH LETTERS*
Cummer, S. A., Inan, U. S., Bell, T. F., Barrington-Leigh, C. P.
1998; 25 (8): 1281-1284
 - **Intense continuing currents following positive cloud-to-ground lightning associated with red sprites** *GEOPHYSICAL RESEARCH LETTERS*
Bell, T. F., Reising, S. C., Inan, U. S.
1998; 25 (8): 1285-1288
 - **The correlation of AKR waves with precipitating electrons as determined by plasma wave and x-ray image data from the POLAR spacecraft** *Geophysical Research Letters*
Inan, U., Imhof, W. L., Chenette, L., Datlowe, W., Mobilia, J., Walt, M.
1998
 - **Precipitation of radiation belt electrons by magnetospherically reflected whistlers** *Journal of Geophysical Research*
Risti#-Djurovi#, J. L., Bell, T. F., Inan, U.
1998

- **Periodic and quasiperiodic ELF/VLF emissions observed by an array of Antarctic stations** *Journal of Geophysical Research*
Smith, A., Engebretson, M. J., Klatt, M., Inan, U., Arnoldy, R. L., Fukunishi, H.
1998
- **Ionospheric D region remote sensing using VLF radio atmospherics** *Radio Science*
Cummer, S. A., Inan, U., Bell, T. F.
1998
- **Low-frequency impulsive auroral hiss observations at high geomagnetic latitudes** *Journal of Geophysical Research*
LaBelle, J., Weatherwax, A. T., Perring, J., Walsh, E., Trimpi, M. L., Inan, U.
1998
- **Satellite observations of lightning-induced electron precipitation** *Journal of Geophysical Research*
Voss, H. D., Walt, M., Imhof, L., Mobilia, J., Inan, U.
1998
- **Magnetospheric Radio Sounding on the IMAGE Mission**
Inan, U., Benson, R. F., Green, J. L., Fung, S. F., W, B. W., Calvert
1998
- **Substorm Auroral Expansion to High Latitudes and the Dawn/Dusk Flanks** *Substorms-4*
Inan, U., Doolittle, J. H., Mende, S. B., Frey, U., Rosenberg, T. J., Weatherwax, A. T.
1998
- **Erratum: "Measurement of charge transfer in sprite-producing lightning using ELF radio atmospherics"** *Geophysical Research Letters*
Cummer, S. A., Inan, U.
1998
- **Ionospheric effects due to electrostatic thundercloud fields** *Journal of Atmospheric and Solar-Terrestrial Physics*
Pasko, V. P., Inan, U., Bell, T. F.
1998
- **Time resolved N₂ triplet state vibrational populations and emissions associated with red sprites** *Journal of Atmospheric and Solar-Terrestrial Physics*
Inan, U., Morrill, J. S., Bucseles, J., Pasko, P., Berg, S. L., Heavner, M. J.
1998
- **Measuring lightning-induced ionospheric effects with incoherent scatter radar or with cross-modulation** *Journal of Atmospheric and Solar-Terrestrial Physics*
Inan, U., Showen, R. L., Slingeland, A.
1998
- **A two-dimensional model of runaway electron beams driven by quasi-electrostatic thundercloud fields** *GEOFYSICAL RESEARCH LETTERS*
Lehtinen, N. G., Bell, T. F., Pasko, V. P., Inan, U. S.
1997; 24 (21): 2639-42
- **Infrared glow above thunderstorms?** *GEOFYSICAL RESEARCH LETTERS*
Picard, R. H., Inan, U. S., Pasko, V. P., Winick, Wintersteiner, P. P.
1997; 24 (21): 2635-38
- **Sprites as evidence of vertical gravity wave structures above mesoscale thunderstorms** *GEOFYSICAL RESEARCH LETTERS*
Pasko, V. P., Inan, U. S., Bell, T. F.
1997; 24 (14): 1735-1738
- **Measurement of charge transfer in sprite-producing lightning using ELF radio atmospherics** *GEOFYSICAL RESEARCH LETTERS*
Cummer, S. A., Inan, U. S.
1997; 24 (14): 1731-34
- **Probing properties of the magnetospheric hot plasma distribution by whistler mode wave injection at multiple frequencies: Evidence of spatial as well as temporal wave growth** *JOURNAL OF GEOFYSICAL RESEARCH-SPACE PHYSICS*
Carpenter, D. L., Sonwalkar, V. S., Helliwell, R. A., Walt, M., Inan, U. S., Ikeda, M., CAUDLE, D. L.

- 1997; 102 (A7): 14355-14362
- **Properties of the magnetospheric hot plasma distribution deduced from whistler mode wave injection at 2400 Hz: Ground-based detection of azimuthal structure in magnetospheric hot plasmas** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Sonwalkar, V. S., Carpenter, D. L., Helliwell, R. A., Walt, M., Inan, U. S., CAUDLE, D. L., Ikeda, M.
1997; 102 (A7): 14363-14380
 - **VLF remote sensing of high-energy auroral particle precipitation** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Cummer, S. A., Bell, T. F., Inan, U. S., Chenette, D. L.
1997; 102 (A4): 7477-84
 - **Rapid lateral expansion of optical luminosity in lightning-induced ionospheric flashes referred to as 'elves'** *GEOPHYSICAL RESEARCH LETTERS*
Inan, U. S., BarringtonLeigh, C., Hansen, S., Glukhov, V. S., Bell, T. F., Rairden, R.
1997; 24 (5): 583-86
 - **Sprites produced by quasi-electrostatic heating and ionization in the lower ionosphere** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Pasko, V. P., Inan, U. S., Bell, T. F., Taranenko, Y. N.
1997; 102 (A3): 4529-61
 - **An analysis of new and existing FDTD methods for isotropic cold plasma and a method for improving their accuracy** *IEEE Transactions on Antennas and Propagation*
Inan, U., Cummer, S. A.
1997
 - **Quasiperiodic similar to 5-60 s fluctuations of VLF signals propagating in the Earth-ionosphere waveguide: A result of pulsating auroral particle precipitation?** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Carpenter, D. L., Galand, M., Bell, T. F., Sonwalkar, V. S., Inan, U. S., LaBelle, J., SMITH, A. J., Clark, T. D., Rosenberg, T. J.
1997; 102 (A1): 347-361
 - **Sprites produced by quasi-electrostatic heating and ionization in the lower ionosphere** *Journal of Geophysical Research*
Pasko, V. P., Inan, U., Bell, T. F., Taranenko, N.
1997
 - **VLF remote sensing of high energy auroral particle precipitation** *Journal of Geophysical Research*
Cummer, S. A., Bell, T. F., Inan, U., Chenette, L.
1997
 - **Erosion and Recovery of the Plasmasphere in the Plasmopause Region** *Space Science Reviews*
Inan, U., Carpenter, D. L., Lemaire, J.
1997
 - **Probing properties of the magnetospheric hot plasma distribution by whistler mode wave injection at multiple frequencies: Evidence of spatial as well as temporal wave growth** *Journal of Geophysical Research*
Carpenter, D. L., Sonwalkar, V. S., Helliwell, R. A., Walt, M., Inan, U., Ikeda, M.
1997
 - **Infrared glow above thunderstorms?** *Geophysical Research Letters*
Picard, R. H., Inan, U., Pasko, P., Winick, R., Wintersteiner, P. P.
1997
 - **LF and MF observations of the lightning electromagnetic pulse at ionospheric altitudes** *Geophysical Research Letters*
Inan, U., Kelley, M. C., Baker, D., Holzworth, H., Argo, P., Cummer, S. A.
1997
 - **Rapid lateral expansion of optical luminosity in lightning-induced ionospheric flashes referred to as 'elves'** *Geophysical Research Letters*
Inan, U., Barrington-Leigh, C. P., Hansen, S., Glukhov, S., Bell, T. F., Rairden, R.
1997
 - **Whistlers, Discovery of the Magnetosphere** *History of Geophysics*
Inan, U., Helliwell, R. A.
1997

- **From Nuclear Physics to Space Physics by Way of High Altitude Nuclear Tests** *Discovery of the Magnetosphere*
Inan, U., Walt, M.
1997
- **Lightning Whistlers Reveal the Plasmapause, an Unexpected Boundary in Space** *Discovery of the Magnetosphere*
Inan, U., Carpenter, D. L.
1997
- **Measurement of charge transfer in sprite-producing lightning using ELF radio atmospherics** *Geophysical Research Letters*
Cummer, A., Inan, U.
1997
- **Properties of the magnetospheric hot plasma distribution deduced from whistler mode wave injection at 2400 Hz: Ground-based detection of azimuthal structure in magnetospheric hot plasmas** *Journal of Geophysical Research*
Sonwalkar, V. S., Carpenter, D. L., Helliwell, R. A., Walt, M., Inan, U., Caudle, D. L.
1997
- **A two-dimensional model of runaway electron beams driven by quasi-electrostatic thundercloud fields** *Geophysical Research Letters*
Lehtinen, N. G., Bell, T. F., Pasko, P., Inan, U.
1997
- **Evidence for continuing current in sprite-producing cloud-to-ground lightning** *GEOPHYSICAL RESEARCH LETTERS*
Reising, S. C., Inan, U. S., Bell, T. F., Lyons, W. A.
1996; 23 (24): 3639–42
- **VLF signatures of ionospheric disturbances associated with sprites Reply** *GEOPHYSICAL RESEARCH LETTERS*
Inan, U. S., Bell, T. F., Pasko, V. P.
1996; 23 (23): 3423–3424
- **gamma-Ray emission produced by a relativistic beam of runaway electrons accelerated by quasi-electrostatic thundercloud fields** *GEOPHYSICAL RESEARCH LETTERS*
Lehtinen, N. G., Walt, M., Inan, U. S., Bell, T. F., Pasko, V. P.
1996; 23 (19): 2645–48
- **Particle simulation of the time-dependent interaction with the ionosphere of rapidly varying lightning EMP** *GEOPHYSICAL RESEARCH LETTERS*
Glukhov, V. S., Inan, U. S.
1996; 23 (16): 2193–2196
- **Elves: Lightning-induced transient luminous events in the lower ionosphere** *GEOPHYSICAL RESEARCH LETTERS*
Fukunishi, H., Takahashi, Y., Kubota, M., Sakanoi, K., Inan, U. S., Lyons, W. A.
1996; 23 (16): 2157–2160
- **Characteristics of localized ionospheric disturbances inferred from VLF measurements at two closely spaced receivers** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
LevTov, S. J., Inan, U. S., Smith, A. J., Clilverd, M. A.
1996; 101 (A7): 15737–47
- **Sustained heating of the ionosphere above thunderstorms as evidenced in "early/fast" VLF events** *GEOPHYSICAL RESEARCH LETTERS*
Inan, U. S., Pasko, V. P., Bell, T. F.
1996; 23 (10): 1067–70
- **On the association of terrestrial gamma-ray bursts with lightning and implications for sprites** *GEOPHYSICAL RESEARCH LETTERS*
Inan, U. S., Reising, S. C., Fishman, G. J., Horack, J. M.
1996; 23 (9): 1017–20
- **Sprites as luminous columns of ionization produced by quasi-electrostatic thundercloud fields** *GEOPHYSICAL RESEARCH LETTERS*
Pasko, V. P., Inan, U. S., Bell, T. F.
1996; 23 (6): 649–52
- **VLF and LF signatures of mesospheric lower ionospheric response to lightning discharges** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*

- Inan, U. S., Slingeland, A., Pasko, V. P., Rodriguez, J. V.
1996; 101 (A3): 5219–38
- **VLF strip holographic imaging of lightning-associated ionospheric disturbances** *RADIO SCIENCE*
Chen, J. T., Inan, U. S., Bell, T. F.
1996; 31 (2): 335–48
 - **VLF remote sensing of the auroral electrojet** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Cummer, S. A., Bell, T. F., Inan, U. S., Zanetti, L. J.
1996; 101 (A3): 5381–89
 - **Blue jets produced by quasi-electrostatic pre-discharge thundercloud fields** *GEOPHYSICAL RESEARCH LETTERS*
Pasko, V. P., Inan, U. S., Bell, T. F.
1996; 23 (3): 301-304
 - **Space-time structure of optical flashes and ionization changes produced by lightning-EMP** *GEOPHYSICAL RESEARCH LETTERS*
Inan, U. S., Sampson, W. A., TARANENKO, Y. N.
1996; 23 (2): 133-136
 - **Evidence for continuing current in sprite-producing cloud-to-ground lightning** *Geophysical Research Letters*
Reising, S. C., Inan, U., Bell, T. F., Lyons, A.
1996
 - **Frequency variations of quasi-periodic ELF-VLF emissions: A possible new ground-based diagnostic of the outer high-latitude magnetosphere** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Alford, J., Engebretson, M., Arnoldy, R., Inan, U.
1996; 101 (A1): 83–97
 - **Trapped electron losses by interactions with coherent VLF waves**
Walt, M., Inan, U. S., Voss, H. D., Reeves, G. D.
AIP PRESS.1996: 65–70
 - **VLF remote sensing of the auroral electrojet** *Journal of Geophysical Research*
Cummer, S. A., Bell, T. F., Inan, U., Zanetti, J.
1996
 - **Elves: Lightning-induced transient luminous events in the lower ionosphere** *Geophysical Research Letters*
Fukunishi, H., Takahashi, Y., Kubota, M., Sakanoi, K., Inan, U., Lyons, W. A.
1996
 - **Frequency variations of quasi-periodic ELF-VLF emissions: A possible new ground-based diagnostic of the outer high-latitude magnetosphere** *Journal of Geophysical Research*
Alford, J., Engebretson, M. J., Arnoldy, L., Inan, U.
1996
 - **Blue jets produced by quasi-electrostatic pre-discharge thundercloud fields** *Geophysical Research Letters*
Pasko, V. P., Inan, U., Bell, T. F.
1996
 - **VLF and LF signatures of mesospheric/lower ionospheric response to lightning discharges** *Journal of Geophysical Research*
Inan, U., Slingeland, A., Pasko, P., Rodriguez, J. V.
1996
 - **On the association of terrestrial gamma-ray bursts with lightning and implications for sprites** *Geophysical Research Letters*
Inan, U., Reising, S. C., Fishman, J., Horack, M.
1996
 - **Sustained heating of the ionosphere above thunderstorms as evidenced in "early/fast" VLF events** *Geophysical Research Letters*
Inan, U., Pasko, V. P., Bell, T. F.
1996

- **Characteristics of localized ionospheric disturbances inferred from VLF measurements at two closely spaced receivers** *Journal of Geophysical Research*
Lev-Tov, S. J., Inan, U., Smith, J., Clilverd, A.
1996
- **Particle simulation of the time-dependent interaction with the ionosphere of rapidly varying lightning EMP** *Geophysical Research Letters*
Glukhov, V. S., Inan, U.
1996
- **$\{\gamma\}$ -ray emission produced by a relativistic beam of runaway electrons accelerated by quasi-electrostatic thundercloud fields** *Geophysical Research Letters*
Lehtinen, N. G., Walt, M., Inan, U., Bell, T. F., Pasko, V. P.
1996
- **On the accuracy of arrival azimuth determination of sprite-associated lightning flashes by Earth-ionosphere cavity resonances** *Geophysical Research Letters*
Inan, U., Füllekrug, M., Reising, S. C., Lyons, A.
1996
- **Whistler mode wave intensities in the radiation belts**
Inan, U., Helliwell, R. A., Walworth, K. F.
1996
- **Sprites as luminous columns of ionization produced by quasi-electrostatic thundercloud fields** *Geophysical Research Letters*
Pasko, V. P., Inan, U., Bell, T. F.
1996
- **VLF strip holographic imaging of lightning-associated ionospheric disturbances** *Radio Science*
Chen, J. T., Inan, U., Bell, T. F.
1996
- **Reply** *Geophysical Research Letters*
Inan, U., Bell, T. F., Pasko, P.
1996
- **VLF signatures of ionospheric disturbances associated with sprites** *GEOPHYSICAL RESEARCH LETTERS*
Inan, U. S., Bell, T. F., Pasko, V. P., Sentman, D. D., Wescott, E. M., Lyons, W. A.
1995; 22 (24): 3461-3464
- **ALTITUDE PROFILES OF LOCALIZED D-REGION DENSITY DISTURBANCES PRODUCED IN LIGHTNING-INDUCED ELECTRON-PRECIIPITATION EVENTS** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
LEVTOV, S. J., INAN, U. S., BELL, T. F.
1995; 100 (A11): 21375-21383
- **VLF SIGNATURES OF IONOSPHERIC HEATING BY HIPAS** *RADIO SCIENCE*
BELL, T. F., INAN, U. S., DANIELSON, M. T., CUMMER, S. A.
1995; 30 (6): 1855-67
- **RUNAWAY ELECTRONS AS A SOURCE OF RED-SPRITES IN THE MESOSPHERE** *GEOPHYSICAL RESEARCH LETTERS*
BELL, T. F., PASKO, V. P., INAN, U. S.
1995; 22 (16): 2127-30
- **FOCUSING OF NONDUCTED WHISTLERS BY THE EQUATORIAL ANOMALY** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
SONWALKAR, V. S., INAN, U. S., AGGSON, T. L., FARRELL, W. M., PFAFF, R.
1995; 100 (A5): 7783-90
- **HEATING, IONIZATION AND UPWARD DISCHARGES IN THE MESOSPHERE DUE TO INTENSE QUASI-ELECTROSTATIC THUNDERCLOUD FIELDS** *GEOPHYSICAL RESEARCH LETTERS*
PASKO, V. P., INAN, U. S., TARANENKO, Y. N., BELL, T. F.
1995; 22 (4): 365-68

- **AN INTERPRETATION OF A MYSTERIOUS 3.0-KHZ TO 4.6-KHZ EMISSION BAND OBSERVED ON VOYAGER-2 NEAR NEPTUNE** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
SONWALKAR, V. S., INAN, U. S., BELL, T. F.
1995; 100 (A2): 1795–1809
- **Focusing of nonducted whistlers by the equatorial anomaly** *Journal of Geophysical Research*
Sonwalkar, V. S., Inan, U., Aggson, L., Farrell, M., Pfaff, R.
1995
- **COINCIDENT BURSTS OF AURORAL KILOMETRIC RADIATION AND VLF EMISSIONS ASSOCIATED WITH A TYPE-III SOLAR RADIO NOISE EVENT** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
ROSENBERG, T. J., SINGH, S., WU, C. S., LABELLE, J., TREUMANN, R. A., INAN, U. S., LANZEROTTI, L. J.
1995; 100 (A1): 281–88
- **An interpretation of a mysterious 3.0- to 4.6-kHz emission band observed on Voyager 2 near Neptune** *Journal of Geophysical Research*
Sonwalkar, V. S., Inan, U., Bell, T. F.
1995
- **Altitude profiles of localized D region density disturbances produced in lightning-induced electron precipitation events** *Journal of Geophysical Research*
Lev-Tov, S. J., Inan, U., Bell, T. F.
1995
- **Notes on the diversity of the properties of radio bursts observed on the nightside of Venus** *Journal of Atmospheric and Terrestrial Physics*
Umran, U., Sonwalkar, V. S., Carpenter, D. L.
1995
- **Heating, ionization and upward discharges in the mesosphere due to intense quasi-electrostatic thundercloud fields** *Geophysical Research Letters*
Pasko, V. P., Inan, U., Taranenko, N., Bell, T. F.
1995
- **Earth's plasmasphere awaits rediscovery** *EOS Transactions*
Umran, U., Carpenter, D. L.
1995
- **Intensities and polarization rates of whistler mode VLF signals observed from a ground network near L = 4** *Journal of Geophysical Research*
Inan, U., Ikeda, M., Nagano, I., Shimbo, T., Carpenter, D. L.
1995
- **Chapter 13 of Handbook of Atmospheric Electrodynamics** *Handbook of Atmospheric Electrodynamics*
Inan, U., Sonwalkar, V. S.
1995
- **Runaway electrons as a source of Red Sprites in the mesosphere** *Geophysical Research Letters*
Bell, T. F., Pasko, V. P., Inan, U.
1995
- **The role of the Gendrin mode of VLF propagation in the generation of magnetospheric emissions** *Geophysical Research Letters*
Inan, U., Helliwell, R. A.
1995
- **The feasibility of radio sounding in the magnetosphere** *Radio Science*
Inan, U., Calvert, W., Benson, F., Carpenter, D. L., Fung, S. F., Gallagher, D. L.
1995
- **VLF signatures of ionospheric heating by HIPAS** *Radio Science*
Bell, T. F., Inan, U., Danielson, T., Cummer, S. A.
1995
- **Coincident bursts of auroral kilometric radiation and VLF emissions associated with a type 3 solar radio noise event** *Journal of Geophysical Research*
Rosenberg, T. J., Singh, S., Wu, S., LaBelle, J., Treumann, R. A., Inan, U.

1995

- **HEATING OF THE NIGHTTIME D-REGION BY VERY-LOW FREQUENCY TRANSMITTERS** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
RODRIGUEZ, J. V., INAN, U. S., BELL, T. F.
1994; 99 (A12): 23329–38
- **RECOVERY SIGNATURES OF LIGHTNING-ASSOCIATED VLF PERTURBATIONS AS A MEASURE OF THE LOWER IONOSPHERE** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
PASKO, V. P., INAN, U. S.
1994; 99 (A9): 17523–37
- **SIMULTANEOUS OBSERVATIONS OF VLF GROUND TRANSMITTER SIGNALS ON THE DE-1 AND COSMOS-1809 SATELLITES - DETECTION OF A MAGNETOSPHERIC CAUSTIC AND A DUCT** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
SONWALKAR, V. S., INAN, U. S., BELL, T. F., HELLIWELL, R. A., CHMYREV, V. M., SOBOLEV, Y. P., OVCHARENKO, O. Y., SELEGEJ
1994; 99 (A9): 17511–22
- **DE-1 AND COSMOS 1809 OBSERVATIONS OF LOWER-HYBRID WAVES EXCITED BY VLF WHISTLER-MODE WAVES** *GEOPHYSICAL RESEARCH LETTERS*
BELL, T. F., INAN, U. S., LAUBEN, D., SONWALKAR, V. S., HELLIWELL, R. A., SOBOLEV, Y. P., CHMYREV, V. M., GONZALEZ, S.
1994; 21 (8): 653–56
- **DE-1 VLF OBSERVATIONS DURING ACTIVITY WAVE INJECTION EXPERIMENTS** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
SONWALKAR, V. S., INAN, U. S., BELL, T. F., HELLIWELL, R. A., MOLCHANOV, O. A., GREEN, J. L.
1994; 99 (A4): 6173–86
- **SOURCE REGIONS OF LONG-PERIOD PULSATION EVENTS IN ELECTRON-PRECIPIRATION AND MAGNETIC-FIELDS AT SOUTH-POLE STATION** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
PAQUETTE, J. A., MATTHEWS, D. L., ROSENBERG, T. J., LANZEROTTI, L. J., INAN, U. S.
1994; 99 (A3): 3869–77
- **ELECTRON-DENSITY CHANGES IN THE NIGHTTIME D-REGION DUE TO HEATING BY VERY-LOW-FREQUENCY TRANSMITTERS** *GEOPHYSICAL RESEARCH LETTERS*
Rodriguez, J. V., Inan, U. S.
1994; 21 (2): 93-96
- **Lightning-induced disturbances of the lower ionosphere** *COSPAR Colloquium on Low-Latitude Ionospheric Physics*
Inan, U. S.
PERGAMON PRESS LTD.1994: 203–219
- **DE-1 and COSMOS 1809 observations of lower hybrid waves excited by VLF whistler mode waves** *Geophysical Research Letters*
Bell, T. F., Inan, U., Lauben, D. S., Sonwalkar, V. S., Helliwell, R. A., Sobolev, Y. P.
1994
- **Anomalous noise from whistlers and radio atmospherics due to quasi-transverse electromagnetic mode propagation of VLF signals in the Earth-ionosphere waveguide** *Radio Science*
Inan, U., Mielke, T. A., Mideke, M.
1994
- **A study of quasi-periodic ELF-VLF emissions at three Antarctic stations: Evidence for off-equatorial generation?** *Annales Geophysicae*
Inan, U., Morrison, K., Engebretson, J., Beck, R., Johnson, J. E., Arnoldy, R. L.
1994
- **Simultaneous observations of VLF ground transmitter signals on the DE 1 and COSMOS 1809 satellites: Detection of a magnetospheric caustic and a duct** *Journal of Geophysical Research*
Sonwalkar, V. S., Inan, U., Bell, T. F., Helliwell, R. A., Chmyrev, V. M., Sobolev, Y. P.
1994
- **Heating of the nighttime D region by very low frequency transmitters** *Journal of Geophysical Research*
Rodriguez, J. V., Inan, U., Bell, T. F.
1994

- **Electron density changes in the nighttime D region due to heating by very-low-frequency transmitters** *Geophysical Research Letters*
Rodriguez, J. V., Inan, U.
1994
- **Source regions of long-period pulsation events in electron precipitation and magnetic fields at South Pole Station** *Journal of Geophysical Research*
Paquette, J. A., Matthews, D. L., Rosenberg, T. J., Lanzerotti, J., Inan, U.
1994
- **The ULF modulation of ELF-VLF emissions close to the magnetospheric boundary** *Physical Signatures of Magnetospheric Boundary Layer Processes*
Inan, U., Morrison, K., Engebretson, J., Beck, R., Johnson, J. E., Arnoldy, R. L.
1994
- **Global thunderstorm tracking via measurements of radio atmospherics at Palmer Station** *Antarctic Journal of the United States*
Inan, U., Reising, S. C.
1994
- **Initial results from the PENGUIn ELF/VLF receiver at AGO-P2** *Antarctic Journal of the United States*
Inan, U., Brown, A. D., Yarbrough, J.
1994
- **DE 1 VLF observations during Activny wave injection experiments** *Journal of Geophysical Research*
Sonwalkar, V. S., Inan, U., Bell, T. F., Helliwell, R. A., Molchanov, O. A., Green, J. L.
1994
- **Recovery signatures of lightning-associated VLF perturbations as a measure of the lower ionosphere** *Journal of Geophysical Research*
Pasko, V. P., Inan, U.
1994
- **A programmable and low-power ELF/VLF receiver for automatic geophysical observatories** *Antarctic Journal of the United States*
Shafer, D. C., Brown, A. D., Trabucco, W. J., Inan, U.
1994
- **THE INTERACTION WITH THE LOWER IONOSPHERE OF ELECTROMAGNETIC PULSES FROM LIGHTNING - EXCITATION OF OPTICAL-EMISSIONS** *GEOPHYSICAL RESEARCH LETTERS*
TARANENKO, Y. N., INAN, U. S., BELL, T. F.
1993; 20 (23): 2675–78
- **VLF SIGNATURES OF LIGHTNING-INDUCED HEATING AND IONIZATION OF THE NIGHTTIME D-REGION** *GEOPHYSICAL RESEARCH LETTERS*
Inan, U. S., Rodriguez, J. V., Idone, V. P.
1993; 20 (21): 2355-2358
- **THE HEATING OF SUPRATHERMAL IONS ABOVE THUNDERSTORM CELLS** *GEOPHYSICAL RESEARCH LETTERS*
BELL, T. F., HELLIWELL, R. A., INAN, U. S., LAUBEN, D. S.
1993; 20 (18): 1991–94
- **THE ROLE OF DUCTED WHISTLERS IN THE PRECIPITATION LOSS AND EQUILIBRIUM FLUX OF RADIATION BELT ELECTRONS** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
BURGESS, W. C., INAN, U. S.
1993; 98 (A9): 15643–65
- **THE SCATTERING OF VLF WAVES BY LOCALIZED IONOSPHERIC DISTURBANCES PRODUCED BY LIGHTNING-INDUCED ELECTRON-PRECIPITATION** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
POULSEN, W. L., BELL, T. F., INAN, U. S.
1993; 98 (A9): 15553–59
- **INTERACTION WITH THE LOWER IONOSPHERE OF ELECTROMAGNETIC PULSES FROM LIGHTNING - HEATING, ATTACHMENT, AND IONIZATION** *GEOPHYSICAL RESEARCH LETTERS*
TARANENKO, Y. N., INAN, U. S., BELL, T. F.
1993; 20 (15): 1539–42

- **WHISTLERS AND PLASMASPHERIC HISS - WAVE DIRECTIONS AND 3-DIMENSIONAL PROPAGATION** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
DRAGANOV, A. B., INAN, U. S., SONWALKAR, V. S., BELL, T. F.
1993; 98 (A7): 11401–10
- **A SEARCH FOR ELF VLF EMISSIONS INDUCED BY EARTHQUAKES AS OBSERVED IN THE IONOSPHERE BY THE DE-2 SATELLITE** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Henderson, T. R., Sonwalkar, V. S., Helliwell, R. A., Inan, U. S., FRASERSMITH, A. C.
1993; 98 (A6): 9503-9514
- **A MULTIPLE-MODE 3-DIMENSIONAL MODEL OF VLF PROPAGATION IN THE EARTH-IONOSPHERE WAVE-GUIDE IN THE PRESENCE OF LOCALIZED D-REGION DISTURBANCES** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
POULSEN, W. L., INAN, U. S., BELL, T. F.
1993; 98 (A2): 1705–17
- **Lightning-induced effects on VLF/LF radio propagation** *AGARD, ELF/VLF/LF Radio Propagation and Systems Aspects*
Inan, U.
1993; 10: 93-30727 11-32
- **Whistlers and plasmaspheric hiss - Wave directions and three-dimensional propagation** *Journal of Geophysical Research*
Draganov, A. B., Inan, U., Sonwalkar, V. S., Bell, T. F.
1993
- **VLF signatures of lightning-induced heating and ionization of the nighttime D-region** *Geophysical Research Letters*
Inan, U., Rodriguez, J. V., Idone, P.
1993
- **The interaction with the lower ionosphere of electromagnetic pulses from lightning: Excitation of optical emissions** *Geophysical Research Letters*
Taranenko, Y. N., Inan, U., Bell, T. F.
1993
- **A multiple-mode three-dimensional model of VLF propagation in the earth-ionosphere waveguide in the presence of localized D region disturbances** *Journal of Geophysical Research*
Poulsen, W. L., Inan, U., Bell, T. F.
1993
- **Siple Station, Antarctica, experiments on staircase frequency ramps as approximations to continuous ramps** *Journal of Geophysical Research*
Inan, U., Mielke, T. A., Helliwell, R. A.
1993
- **Nonlinear wave-wave interactions in the subauroral ionosphere on the basis of ISIS-2 satellite observations of Siple station VLF signals** *Geophysical Research Letters*
Inan, U., Ohnami, S., Hayakawa, M., Bell, T. F., Ondoh, T.
1993
- **A search for ELF/VLF emissions induced by earthquakes as observed in the ionosphere by the DE 2 satellite** *Journal of Geophysical Research*
Henderson, T. R., Sonwalkar, V. S., Helliwell, R. A., Inan, U., Fraser-Smith, A. C.
1993
- **Interaction with the lower ionosphere of electromagnetic pulses from lightning - Heating, attachment, and ionization** *Geophysical Research Letters*
Taranenko, Y. N., Inan, U., Bell, T. F.
1993
- **The scattering of VLF waves by localized ionospheric disturbances produced by lightning-induced electron precipitation** *Journal of Geophysical Research*
Poulsen, W. L., Bell, T. F., Inan, U.
1993
- **The heating of suprathermal ions above thunderstorm cells** *Geophysical Research Letters*
Bell, T. F., Helliwell, R. A., Inan, U., Lauben, D. S.
1993

- **The role of ducted whistlers in the precipitation loss and equilibrium flux of radiation belt electrons** *Journal of Geophysical Research*
Burgess, W. C., Inan, U.
1993
- **Plasmasphere dynamics in the duskside bulge region: A new look at old topic** *Journal of Geophysical Research*
Inan, U., Carpenter, D. L., Giles, L., Chappell, R., Décréau P, M. E., Anderson, R. R.
1993
- **Imagers for the magnetosphere, aurora, and plasmasphere (IMAP)** *Society of Photo-Optical Instrumentation Engineers (SPIE) Conference Series*
Inan, U., Frank, L. A., Williams, J., Roelof, C.
1993
- **RELAXATION OF TRANSIENT LOWER IONOSPHERIC DISTURBANCES CAUSED BY LIGHTNING-WHISTLER-INDUCED ELECTRON-PRECIPIATION BURSTS** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
GLUKHOV, V. S., PASKO, V. P., INAN, U. S.
1992; 97 (A11): 16971–79
- **IONOSPHERIC MODIFICATION WITH A VLF TRANSMITTER** *GEOPHYSICAL RESEARCH LETTERS*
Inan, U. S., Rodriguez, J. V., Levrov, S., Oh, J.
1992; 19 (20): 2071-2074
- **D-REGION DISTURBANCES CAUSED BY ELECTROMAGNETIC PULSES FROM LIGHTNING** *GEOPHYSICAL RESEARCH LETTERS*
RODRIGUEZ, J. V., INAN, U. S., BELL, T. F.
1992; 19 (20): 2067–70
- **OPTICAL SIGNATURES OF LIGHTNING-INDUCED HEATING OF THE D-REGION** *GEOPHYSICAL RESEARCH LETTERS*
TARANENKO, Y. N., INAN, U. S., BELL, T. F.
1992; 19 (18): 1815–18
- **RELATIVISTIC ELECTRON MICROBURSTS** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
IMHOF, W. L., VOSS, H. D., MOBILIA, J., DATLOWE, D. W., GAINES, E. E., MCGLENNON, J. P., INAN, U. S.
1992; 97 (A9): 13829–37
- **PRECIPITATION OF SUPRATHERMAL (100 EV) ELECTRONS BY OBLIQUE WHISTLER WAVES** *GEOPHYSICAL RESEARCH LETTERS*
JASNA, D., INAN, U. S., BELL, T. F.
1992; 19 (16): 1639–42
- **WHISTLER-MODE CHORUS AND MORNINGSIDE AURORAE** *GEOPHYSICAL RESEARCH LETTERS*
Inan, U. S., Chiu, Y. T., Davidson, G. T.
1992; 19 (7): 653-656
- **MAGNETOSPHERICALLY REFLECTED WHISTLERS AS A SOURCE OF PLASMASPHERIC HISS** *GEOPHYSICAL RESEARCH LETTERS*
DRAGANOV, A. B., INAN, U. S., SONWALKAR, V. S., BELL, T. F.
1992; 19 (3): 233–36
- **VLF-HF HEATING OF THE LOWER IONOSPHERE AND ELF WAVE GENERATION** *GEOPHYSICAL RESEARCH LETTERS*
TARANENKO, Y. N., INAN, U. S., BELL, T. F.
1992; 19 (1): 61–64
- **D region disturbances caused by electromagnetic pulses from lightning** *Geophysical Research Letters*
Rodriguez, J. V., Inan, U., Bell, T. F.
1992
- **A CASE-STUDY OF LIGHTNING, WHISTLERS, AND ASSOCIATED IONOSPHERIC EFFECTS DURING A SUBSTORM PARTICLE INJECTION EVENT** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
RODRIGUEZ, J. V., INAN, U. S., LI, Y. Q., HOLZWORTH, R. H., SMITH, A. J., ORVILLE, R. E., ROSENBERG, T. J.
1992; 97 (A1): 65–75
- **EXCITATION OF WHISTLER MODE SIGNALS VIA INJECTION OF POLARIZED VLF WAVES WITH THE SIPLE TRANSMITTER** *RADIO SCIENCE*

-
- MIELKE, T. A., Elkins, C. J., Helliwell, R. A., Inan, U. S.
1992; 27 (1): 31-46
- **Testing radio bursts observed on the nightside of Venus for evidence of whistler mode propagation from lightning** *Journal of Geophysical Research*
Inan, U., Sonwalkar, V. S., Carpenter, D. L., Strangeway, J.
1992
 - **Pitch angle scattering of energetic particles by oblique whistler waves** *Geophysical Research Letters*
Inan, U., Bell, T. F.
1992
 - **Heating and ionization of the lower ionosphere by lightning** *Geophysical Research Letters*
Inan, U., Bell, T. F., Rodriguez, J.
1992
 - **Lower hybrid waves excited through linear mode coupling and the heating of ions in the auroral and subauroral magnetosphere** *Journal of Geophysical Research*
Inan, U., Bell, T. F., Helliwell, J. V., Hudson, K.
1992
 - **The Role of the Ionosphere in Coupling Upstream ULF Wave Power into the Dayside Magnetosphere** *Journal of Geophysical Research*
Inan, U., Engebretson, M. J., Cahill, L. I., Arnoldy, R. L., Anderson, B. J., Rosenberg, T. J.
1992
 - **ULF magnetic signatures at the earth surface due to ground water flow - A possible precursor to earthquakes** *Geophysical Research Letters*
Draganov, A. B., Inan, U., Taranenko, N.
1992
 - **Magnetospherically reflected whistlers as a source of plasmaspheric hiss** *Geophysical Research Letters*
Draganov, A. B., Inan, U., Sonwalkar, V. S., Bell, T. F.
1992
 - **Optical signatures of lightning-induced heating of the D region** *Geophysical Research Letters*
Taranenko, Y. N., Inan, U., Bell, T. F.
1992
 - **DE-1 observations of lower hybrid waves excited by VLF whistler mode waves** *Geophysical Research Letters*
Bell, T. F., Inan, U., Sonwalkar, V. S., Helliwell, R. A.
1992
 - **Three-wave envelope solitons: Can the speed of light in the fiber be controlled?** *Unknown*
Inan, U., Taranenko, Y. N., Kazovsky, G.
1992
 - **A case study of lightning, whistlers, and associated ionospheric effects during a substorm particle injection event** *Journal of Geophysical Research*
Rodriguez, J. V., Inan, U., Li, Q., Holzworth, H., Smith, A. J., Orville, R. E.
1992
 - **VLF-HF heating of the lower ionosphere and ELF wave generation** *Geophysical Research Letters*
Taranenko, Y. N., Inan, U., Bell, T. F.
1992
 - **A case study of plasma structure in the dusk sector associated with enhanced magnetospheric convection** *Journal of Geophysical Research*
Inan, U., Carpenter, D. L., Smith, J., Giles, L., Chappell, C. R., Décréau P, M. E.
1992
 - **Excitation of whistler mode signals via injection of polarized VLF waves with the Siple transmitter** *Radio Science*
Mielke, T. A., Elkins, J. C., Helliwell, R. A., Inan, U.
1992

- **Whistler-mode chorus and morningside aurorae** *Geophysical Research Letters*
Inan, U., Chiu, T. Y., Davidson, T.
1992
- **Precipitation of suprathermal (100 eV) electrons by oblique whistler waves** *Geophysical Research Letters*
Jasna, D., Inan, U., Bell, T. F.
1992
- **An experiment on the threshold effect in the coherent wave instability** *Geophysical Research Letters*
Inan, U., Mielke, T. A., Helliwell, R. A.
1992
- **Relaxation of transient lower ionospheric disturbances caused by lightning-whistler-induced electron precipitation bursts** *Journal of Geophysical Research*
Glukhov, V. S., Pasko, V. P., Inan, U.
1992
- **On the spatial relationship between lightning discharges and propagation paths of perturbed subionospheric VLF/LF signals** *Journal of Geophysical Research*
Yip, W. Y., Inan, U., Orville, E.
1992
- **An ISEE/Whistler model of equatorial electron density in the magnetosphere** *Journal of Geophysical Research*
Carpenter, D. L., Anderson, R. R.
1992
- **The longitudinal dependence of whistler and chorus characteristics observed on the ground near L = 4** *Journal of Geophysical Research*
Inan, U., Smith, A. J., Carpenter, D. L., Corcuff, Y., Rash J, P. S., Bering, E. A.
1992
- **Relativistic electron microbursts** *Journal of Geophysical Research*
Imhof, W. L., D, V. H., Mobilia, J., Datlowe, W., Gaines, E. E., McGlennon, J. P., Inan, U. S.
1992
- **The propagation of mixed polarization VLF (f = 5 kHz or less) radio waves in the Antarctic earth-ionosphere waveguide** *Radio Science*
Inan, U., Cotton, P. D., Smith, J., Wolf, G., Poulsen, W. L., Carpenter, D. L.
1992
- **ULF MAGNETIC SIGNATURES AT THE EARTH SURFACE DUE TO GROUND-WATER FLOW - A POSSIBLE PRECURSOR TO EARTHQUAKES** *GEOPHYSICAL RESEARCH LETTERS*
DRAGANOV, A. B., INAN, U. S., TARANENKO, Y. N.
1991; 18 (6): 1127-30
- **HEATING AND IONIZATION OF THE LOWER IONOSPHERE BY LIGHTNING** *GEOPHYSICAL RESEARCH LETTERS*
Inan, U. S., Bell, T. F., Rodriguez, J. V.
1991; 18 (4): 705-708
- **DE-1 OBSERVATIONS OF LOWER HYBRID WAVES EXCITED BY VLF WHISTLER MODE WAVES** *GEOPHYSICAL RESEARCH LETTERS*
BELL, T. F., INAN, U. S., SONWALKAR, V. S., HELLIWELL, R. A.
1991; 18 (3): 393-96
- **ANOMALOUS OPTICAL EVENTS DETECTED BY ROCKET-BORNE SENSOR IN THE WIPP CAMPAIGN** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
LI, Y. Q., HOLZWORTH, R. H., HU, H., MCCARTHY, M., MASSEY, R. D., KINTNER, P. M., RODRIGUES, J. V., INAN, U. S., ARMSTRONG, W. C.
1991; 96 (A2): 1315-26
- **THE ROLE OF THE IONOSPHERE IN COUPLING UPSTREAM ULF WAVE POWER INTO THE DAYSIDE MAGNETOSPHERE** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Engebretson, M. J., Cahill, L. J., Arnoldy, R. L., Anderson, B. J., Rosenberg, T. J., Carpenter, D. L., Inan, U. S., EATHER, R. H.
1991; 96 (A2): 1527-1542

- **PITCH ANGLE SCATTERING OF ENERGETIC PARTICLES BY OBLIQUE WHISTLER WAVES** *GEOPHYSICAL RESEARCH LETTERS*
INAN, U. S., BELL, T. F.
1991; 18 (1): 49–52
- **ON THE SPATIAL RELATIONSHIP BETWEEN LIGHTNING DISCHARGES AND PROPAGATION PATHS OF PERTURBED SUBIONOSPHERIC VLF/LF SIGNALS** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
YIP, W. Y., INAN, U. S., ORVILLE, R. E.
1991; 96 (A1): 249–58
- **PATH-DEPENDENT PROPERTIES OF SUBIONOSPHERIC VLF AMPLITUDE AND PHASE PERTURBATIONS ASSOCIATED WITH LIGHTNING** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
WOLF, T. G., Inan, U. S.
1990; 95 (A12): 20997-21005
- **SUBIONOSPHERIC VLF IMAGING OF LIGHTNING-INDUCED ELECTRON-PRECIPIATION FROM THE MAGNETOSPHERE** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Inan, U. S., KNIFSEND, F. A., Oh, J.
1990; 95 (A10): 17217-17231
- **EQUATORIAL GYRORESONANCE BETWEEN ELECTRONS AND MAGNETOSPHERICALLY REFLECTED WHISTLERS** *GEOPHYSICAL RESEARCH LETTERS*
JASNA, D., Inan, U. S., Bell, T. F.
1990; 17 (11): 1865-1868
- **WIDE-BAND VLF ELECTROMAGNETIC BURSTS OBSERVED ON THE DE-1 SATELLITE** *GEOPHYSICAL RESEARCH LETTERS*
Sonwalkar, V. S., Helliwell, R. A., Inan, U. S.
1990; 17 (11): 1861-1864
- **SPACE-TIME EVOLUTION OF WHISTLER MODE WAVE GROWTH IN THE MAGNETOSPHERE** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Carlson, C. R., Helliwell, R. A., Inan, U. S.
1990; 95 (A9): 15073-15089
- **GYRORESONANT WAVE-PARTICLE INTERACTIONS IN A DYNAMIC MAGNETOSPHERE** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Gail, W. B., Inan, U. S., Helliwell, R. A., Carpenter, D. L.
1990; 95 (A9): 15103-15112
- **OBSERVATIONS ON THE DE-1 SPACECRAFT OF ELF VLF WAVES GENERATED BY AN IONOSPHERIC HEATER** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
James, H. G., Inan, U. S., Rietveld, M. T.
1990; 95 (A8): 12187-12195
- **OBSERVATIONS AND MODELING OF WAVE-INDUCED MICROBURST ELECTRON-PRECIPIATION** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Rosenberg, T. J., Wei, R., Detrick, D. L., Inan, U. S.
1990; 95 (A5): 6467-6475
- **VLF HEATING OF THE LOWER IONOSPHERE** *GEOPHYSICAL RESEARCH LETTERS*
Inan, U. S.
1990; 17 (6): 729-732
- **RAPID WHISTLER-MODE WAVE GROWTH RESULTING FROM FREQUENCY-TIME CURVATURE** *GEOPHYSICAL RESEARCH LETTERS*
Helliwell, R. A., Mielke, T., Inan, U. S.
1990; 17 (5): 599-602
- **3-DIMENSIONAL MODELING OF SUBIONOSPHERIC VLF PROPAGATION IN THE PRESENCE OF LOCALIZED D-REGION PERTURBATIONS ASSOCIATED WITH LIGHTNING** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
POULSEN, W. L., Bell, T. F., Inan, U. S.
1990; 95 (A3): 2355-2366

- **SIMULTANEOUS DISTURBANCE OF CONJUGATE IONOSPHERIC REGIONS IN ASSOCIATION WITH INDIVIDUAL LIGHTNING FLASHES** *GEOPHYSICAL RESEARCH LETTERS*
Burgess, W. C., Inan, U. S.
1990; 17 (3): 259-262
- **CHARACTERISTICS OF WAVE-PARTICLE INTERACTIONS DURING SUDDEN COMMENCEMENTS .2. SPACECRAFT OBSERVATIONS** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Gail, W. B., Inan, U. S.
1990; 95 (A1): 139-147
- **Modification of the lower ionosphere in lightning-induced electron precipitation events and through VLF heating** *AGARD, Ionospheric Modification and its Potential to Enhance or Degrade the Performance of Military Systems*
Inan, U.
1990; 12: 10-46
- **Whistler precursors on a VLF transmitter signal** *Journal of Geophysical Research*
Inan, U., Paschal, E. W.
1990
- **Lightning, whistlers, and hiss - A possible relationship** *Physics of Space Plasmas (1989)*
Inan, U., Sonwalkar, V. S.
1990
- **Space-time evolution of whistler mode wavegrowth in the magnetosphere** *Journal of Geophysical Research*
Carlson, C. R., Helliwell, R. A., Inan, U.
1990
- **Observations on the DE 1 spacecraft of ELF/VLF waves generated by an ionospheric heater** *Journal of Geophysical Research*
James, H. G., Inan, U., Rietveld, T.
1990
- **Characteristics of wave-particle interactions during sudden commencements. I - Ground-based observations** *Journal of Geophysical Research*
Gail, W. B., Inan, U., Helliwell, R. A., Carpenter, D. L., Krishnaswamy, S.
1990
- **Electrostatic lower hybrid waves excited by electromagnetic whistler mode waves scattering from planar magnetic-field-aligned plasma density irregularities** *Journal of Geophysical Research*
Inan, U., Bell, T. F., Ngo, D.
1990
- **Ionospheric signatures of cusp latitude Pc 3 pulsations** *Journal of Geophysical Research*
Inan, U., Engebretson, M. J., Anderson, J., Jr., Cahill, Arnoldy, R. L., Rosenberg, T. J.
1990
- **Three-dimensional modeling of subionospheric VLF propagation in the presence of localized D region perturbations associated with lightning** *Journal of Geophysical Research*
Poulsen, W. L., Bell, T. F., Inan, U.
1990
- **Rapid whistler-mode wave growth resulting from frequency-time curvature** *Geophysical Research Letters*
Helliwell, R. A., Mielke, T. A., Inan, U.
1990
- **Observations and modeling of wave-induced microburst electron precipitation** *Journal of Geophysical Research*
Rosenberg, T. J., Wei, R., Detrick, L., Inan, U.
1990
- **Correlation of whistler mode phase delay with transient hydromagnetic waves** *Journal of Geophysical Research*
Inan, U., Paschal, E. W., Lanzerotti, J., MacLennan, G.
1990

- **Wideband VLF electromagnetic bursts observed on the DE 1 satellite** *Geophysical Research Letters*
Sonwalkar, V. S., Helliwell, R. A., Inan, U.
1990
- **Wave-induced burst precipitation events detected with a digital ionosonde** *Geophysical Research Letters*
Inan, U., Jarvis, M. J., Smith, J., Berkey, T., Carpenter, D. L.
1990
- **Simultaneous disturbance of conjugate ionospheric regions in association with individual lightning flashes** *Geophysical Research Letters*
Burgess, W. C., Inan, U.
1990
- **A wave-particle-wave interaction mechanism as a cause of VLF triggered emissions** *Journal of Geophysical Research*
Inan, U., Sa, L. A.
1990
- **Subionospheric VLF 'imaging' of lightning-induced electron precipitation from the magnetosphere** *Journal of Geophysical Research*
Inan, U., Knifsend, F. A., Oh, J.
1990
- **Characteristics of wave-particle interactions during sudden commencements. II - Spacecraft observations** *Journal of Geophysical Research*
Gail, W. B., Inan, U.
1990
- **Equatorial gyroresonance between electrons and magnetospherically reflected whistlers** *Geophysical Research Letters*
Jasna, D., Inan, U., Bell, T. F.
1990
- **Theory of electromagnetic cyclotron wave growth in a time-varying magnetoplasma** *Journal of Geophysical Research*
Inan, U., Gail, W. B.
1990
- **CHARACTERISTICS OF WAVE-PARTICLE INTERACTIONS DURING SUDDEN COMMENCEMENTS .1. GROUND-BASED OBSERVATIONS** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Gail, W. B., Inan, U. S., Helliwell, R. A., Carpenter, D. L., Krishnaswamy, S., Rosenberg, T. J., LANZEROTTI, L. J.
1990; 95 (A1): 119-137
- **CHARACTERISTICS OF SHORT-DURATION ELECTRON-PRECIPIATION BURSTS AND THEIR RELATIONSHIP WITH VLF WAVE ACTIVITY** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Imhof, W. L., Voss, H. D., Mabilia, J., Walt, M., Inan, U. S., Carpenter, D. L.
1989; 94 (A8): 10079-10093
- **LIGHTNING AS AN EMBRYONIC SOURCE OF VLF HISS** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
SONWALKAR, V. S., INAN, U. S.
1989; 94 (A6): 6986-94
- **ENERGY-SPECTRA AND PITCH ANGLE DISTRIBUTIONS OF LIGHTNING-INDUCED ELECTRON-PRECIPIATION - ANALYSIS OF AN EVENT OBSERVED ON THE S81-1(SEEP) SATELLITE** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Inan, U. S., Walt, M., Voss, H. D., Imhof, W. L.
1989; 94 (A2): 1379-1401
- **Lightning as an embryonic source of VLF hiss** *Journal of Geophysical Research*
Sonwalkar, V. S., Inan, U.
1989
- **The excitation of active whistler mode signal paths in the magnetosphere by lightning - Two case studies** *Journal of Geophysical Research*
Inan, U., Carpenter, D. L., Orville, E.
1989
- **Characteristics of short-duration electron precipitation bursts and their relationship with VLF wave activity** *Journal of Geophysical Research*

-
- Imhof, W. L., Voss, H. D., Mobilia, J., Walt, M., Inan, U.
1989
- **A cyclotron resonance mechanism for very-low-frequency whistler-mode sideband wave radiation. I - Introduction and description of external resonances. II - Description of internal ('trapped') resonances. III - Effect of the inhomogeneity on sideband reson** *Journal of Applied Physics*
Inan, U., Sa, L. A.
1989
 - **A cyclotron resonance mechanism for very-low-frequency whistler-mode sideband wave radiation. III. Effect of the inhomogeneity on sideband resonances** *Journal of Applied Physics*
Inan, U., Sa, L. A.
1989
 - **Energy spectra and pitch angle distributions of lightning-induced electron precipitation - Analysis of an event observed on the S81-1 (SEEP) satellite** *Journal of Geophysical Research*
Inan, U., Walt, M., Voss, D., Imhof, L.
1989
 - **A cyclotron resonance mechanism for very-low-frequency whistler-mode sideband wave radiation. II. Description of internal ('trapped') resonances** *Journal of Applied Physics*
Inan, U., Sa, L. A.
1989
 - **SUBIONOSPHERIC VLF SIGNATURES OF NIGHTTIME D-REGION PERTURBATIONS IN THE VICINITY OF LIGHTNING DISCHARGES** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Inan, U. S., SHAFER, D. C., Yip, W. Y., Orville, R. E.
1988; 93 (A10): 11455-11472
 - **GEOGRAPHIC-DISTRIBUTION OF LIGHTNING-INDUCED ELECTRON-PRECIPITATION OBSERVED AS VLF LF PERTURBATION EVENTS** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Inan, U. S., WOLF, T. G., Carpenter, D. L.
1988; 93 (A9): 9841-9853
 - **WAVE NORMAL DIRECTION AND SPECTRAL PROPERTIES OF WHISTLER MODE HISS OBSERVED ON THE DE-1 SATELLITE** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Sonwalkar, V. S., Inan, U. S.
1988; 93 (A7): 7493-7514
 - **PLASMA-WAVE OBSERVATIONS WITH THE DYNAMICS EXPLORER-1 SPACECRAFT** *REVIEWS OF GEOPHYSICS*
Gurnett, D. A., Inan, U. S.
1988; 26 (2): 285-316
 - **SATELLITE-OBSERVATIONS OF A NEW TYPE OF DISCRETE VLF EMISSION AT L LESS-THAN 4** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
POULSEN, W. L., Inan, U. S.
1988; 93 (A3): 1817-1838
 - **OBSERVATION OF AN IONOSPHERIC DISTURBANCE CAUSED BY A GAMMA-RAY BURST** *NATURE*
Fishman, G. J., Inan, U. S.
1988; 331 (6155): 418-420
 - **LIGHTNING-ASSOCIATED PRECIPITATION OF MEV ELECTRONS FROM THE INNER RADIATION BELT** *GEOPHYSICAL RESEARCH LETTERS*
Inan, U. S., Burgess, W. C., WOLF, T. G., SHATER, D. C., Orville, R. E.
1988; 15 (2): 172-175
 - **Plasma wave observations with the Dynamics Explorer 1 spacecraft** *Reviews of Geophysics*
Gurnett, D. A., Inan, U.
1988
 - **Remote sensing of the magnetospheric plasma by means of whistler mode signals** *Reviews of Geophysics*

-
- Inan, U., Carpenter, D. L.
1988
- **Ducted whistler propagation outside the plasmopause** *Journal of Geophysical Research*
Inan, U., Carpenter, D. L., Sulic, M.
1988
 - **A new global survey of ELF/VLF radio noise** *AGARD, Effects of Electromagnetic Noise and Interference on Performance of Military Radio Communication Systems*
Inan, U.
1988; 15: 11-32
 - **Geographic distribution of lightning-induced electron precipitation observed as VLF/LF perturbation events** *Journal of Geophysical Research*
Inan, U., G, W. T., Carpenter, D. L.
1988
 - **Satellite observations of a new type of discrete VLF emission at L below 4** *Journal of Geophysical Research*
Poulsen, W. L., Inan, U.
1988
 - **Electrostatic waves stimulated by coherent VLF signals propagating in and near the inner radiation belt** *Journal of Geophysical Research*
Inan, U., Bell, T. F., Ngo, D.
1988
 - **VLF wave stimulation experiments in the magnetosphere from Siple Station, Antarctica** *Reviews of Geophysics*
Inan, U., Helliwell, R. A.
1988
 - **Structure of VLF whistler mode sideband waves in the magnetosphere** *Journal of Geophysical Research*
Inan, U., Sa, L. A., Helliwell, R. A.
1988
 - **Wave normal direction and spectral properties of whistler mode hiss observed on the DE 1 satellite** *Journal of Geophysical Research*
Sonwalkar, V. S., Inan, U.
1988
 - **Subionospheric VLF signatures of nighttime D region perturbations in the vicinity of lightning discharges** *Journal of Geophysical Research*
Inan, U., C, S. D., Yip, Y., Orville, E.
1988
 - **The Siple VLF transmitter as a multi-frequency probe of the earth-ionosphere waveguide** *Journal of Atmospheric and Terrestrial Physics*
Inan, U., Carpenter, D. L., Bell, T. F., Smith, J.
1988
 - **VLF wave-injection experiments from Siple Station, Antarctica** *Advances in Space Research*
Inan, U., Helliwell, R. A.
1988
 - **WAVES AND INSTABILITIES** *REVIEWS OF GEOPHYSICS*
Inan, U. S.
1987; 25 (3): 588-598
 - **SEASONAL, LATITUDINAL AND DIURNAL DISTRIBUTIONS OF WHISTLER-INDUCED ELECTRON-PRECIPIATION EVENTS** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Carpenter, D. L., Inan, U. S.
1987; 92 (A4): 3429-3435
 - **LIGHTNING-INDUCED ELECTRON-PRECIPIATION EVENTS OBSERVED AT L-APPROXIMATELY-2.4 AS PHASE AND AMPLITUDE PERTURBATIONS ON SUBIONOSPHERIC VLF SIGNALS** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Inan, U. S., Carpenter, D. L.
1987; 92 (A4): 3293-3303
-

- **GYRORESONANT PITCH ANGLE SCATTERING BY COHERENT AND INCOHERENT WHISTLER MODE WAVES IN THE MAGNETOSPHERE** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Inan, U. S.
1987; 92 (A1): 127-142
- **Wave-induced particle precipitation from the magnetosphere and the associated ionospheric perturbations** *AGARD, The Aerospace Environment at High Altitudes and its Implications for Spacecraft Charging and Communications*
Inan, U.
1987; 10: SEE N87-26937 21-18
- **Seasonal, latitudinal and diurnal distributions of whistler-induced electron precipitation events** *Journal of Geophysical Research*
Carpenter, D. L., Inan, U.
1987
- **Lightning-induced electron precipitation events observed at L of about 2.4 as phase and amplitude perturbations on subionospheric VLF signals** *Journal of Geophysical Research*
Inan, U., Carpenter, D. L.
1987
- **Lightning triggered from the earth's magnetosphere as the source of synchronized whistlers** *Nature*
Inan, U., Armstrong, W.
1987
- **The Space Shuttle as a platform for observations of ground-based transmitter signals and whistlers** *Journal of Geophysical Research*
Inan, U., Neubert, T., Bell, T. F., Storey, O., Gurnett, D. A.
1987
- **Spin modulation of spectrally broadened VLF signals** *Journal of Geophysical Research*
Inan, U., James, H. G., Bell, T. F.
1987
- **Resonance between coherent whistler mode waves and electrons in the topside ionosphere** *Journal of Geophysical Research*
Inan, U., Neubert, T., Bell, T. F., Storey, O.
1987
- **MODEL PREDICTIONS OF SUBIONOSPHERIC VLF SIGNAL PERTURBATIONS RESULTING FROM LOCALIZED, ELECTRON PRECIPITATION-INDUCED IONIZATION ENHANCEMENT REGIONS** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Tolstoy, A., Rosenberg, T. J., Inan, U. S., Carpenter, D. L.
1986; 91 (A12): 3473-3482
- **BURST PRECIPITATION INDUCED PERTURBATIONS ON MULTIPLE VLF PROPAGATION PATHS IN ANTARCTICA** *ANNALES GEOPHYSICAE SERIES A-UPPER ATMOSPHERE AND SPACE SCIENCES*
HURREN, P. J., SMITH, A. J., Carpenter, D. L., Inan, U. S.
1986; 4 (4): 311-318
- **GENERATION OF BAND-LIMITED VLF NOISE USING THE SIPLE TRANSMITTER - A MODEL FOR MAGNETOSPHERIC HISS** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Helliwell, R. A., Carpenter, D. L., Inan, U. S., KATSUFRAKIS, J. P.
1986; 91 (A4): 4381-4392
- **JOVIAN VLF CHORUS AND IO TORUS AURORA** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
INAN, U. S.
1986; 91 (A4): 4543-50
- **ON THE CORRELATION OF WHISTLERS AND ASSOCIATED SUBIONOSPHERIC VLF LF PERTURBATIONS** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Inan, U. S., Carpenter, D. L.
1986; 91 (A3): 3106-3116
- **MEASUREMENTS OF SIPLE TRANSMITTER SIGNALS ON THE DE-1 SATELLITE - WAVE NORMAL DIRECTION AND ANTENNA EFFECTIVE LENGTH** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*

-
- Sonwalkar, V. S., Inan, U. S.
1986; 91 (A1): 154-164
- **Measurements of Siple transmitter signals on the DE 1 satellite - Wave normal direction and antenna effective length** *Journal of Geophysical Research*
Sonwalkar, V. S., Inan, U.
1986
 - **On the correlation of whistlers and associated subionospheric VLF/LF perturbations** *Journal of Geophysical Research*
Inan, U., Carpenter, D. L.
1986
 - **Jovian VLF chorus and Io torus aurora** *Journal of Geophysical Research*
Inan, U.
1986
 - **Beat excitation of whistler mode sidebands using the Siple VLF transmitter** *Journal of Geophysical Research*
Helliwell, R. A., Inan, U., Katsufurakis, P., Carpenter, D. L.
1986
 - **The third hop whistler anomaly - Possible evidence of df/dt -dependent wave amplifications** *Journal of Atmospheric and Terrestrial Physics*
Inan, U., Carpenter, D. L., Sulic, M., Smith, J.
1986
 - **Radiometer Installation** *Scientific Bulletin*
Inan, U.
1986
 - **The wave magnetic field amplitude threshold for nonlinear trapping of energetic gyroresonant and Landau resonant electrons by nonducted VLF waves in the magnetosphere** *Journal of Geophysical Research*
Inan, U., Bell, T. F.
1986
 - **SPR: The next two years** *EOS*
Inan, U., Helliwell, R. A.
1986
 - **Latitudinal plasma distribution in the dusk plasmaspheric bulge - Refilling phase and quasi-equilibrium state** *Journal of Geophysical Research*
Inan, U., Décréau, P. M., Carpenter, D. L., Chappell, R., Green, J. L., Waite Jr., J. H.
1986
 - **Study of a QP/GP event at very high latitudes** *Journal of Geophysical Research*
Inan, U., Lanzerotti, L. J., MacLennan, G., Medford, V., Carpenter, C. L.
1986
 - **Whistler studies of the plasmasphere shape and dynamics** *Advances in Space Research*
Inan, U., Carpenter, D. L.
1986
 - **BEAT EXCITATION OF WHISTLER MODE SIDE-BAND USING THE SIPLE VLF TRANSMITTER** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Helliwell, R. A., Inan, U. S., KATSUFRAKIS, J. P., Carpenter, D. L.
1986; 91 (A1): 143-153
 - **PRECIPITATION OF RADIATION BELT ELECTRONS BY MAN-MADE WAVES - A COMPARISON BETWEEN THEORY AND MEASUREMENT** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Inan, U. S., Chang, H. C., Helliwell, R. A., Imhof, W. L., REAGAN, J. B., Walt, M.
1985; 90 (NA1): 359-369
 - **A NEW VLF METHOD FOR STUDYING BURST PRECIPITATION NEAR THE PLASMAPAUSE** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Carpenter, D. L., Inan, U. S., PASCHAL, E. W., SMITH, A. J.

1985; 90 (NA5): 4383-4388

- **SPECTRAL BROADENING OF VLF TRANSMITTER SIGNALS OBSERVED ON DE-1 - A QUASI-ELECTROSTATIC PHENOMENON** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
INAN, U. S., BELL, T. F.
1985; 90 (NA2): 1771-75
- **Precipitation of radiation belt electrons by man-made waves A comparison between theory and measurement** *Journal of Geophysical Research*
Inan, U., Chang, H. C., Helliwell, R. A., Imhof, L., Reagan, J. B., Walt, M.
1985
- **Test particle modeling of wave-induced energetic electron precipitation** *Journal of Geophysical Research*
Chang, H. C., Inan, U.
1985
- **Lightning-induced electron precipitation from the magnetosphere** *Journal of Geophysical Research*
Chang, H. C., Inan, U.
1985
- **Correction to "Variable Frequency VLF Signals in the Magnetosphere: Associated Phenomena and Plasma Diagnostics"** *Journal of Geophysical Research*
Inan, U., Carlson, C. R., Helliwell, R. A., Carpenter, D. L.
1985
- **High-amplitude VLF transmitter signals and associated sidebands observed near the magnetic equatorial plane on the ISEE 1 satellite** *Journal of Geophysical Research*
Inan, U., Bell, T. F.
1985
- **DE 1 observations of Siple transmitter signals and associated sidebands** *Journal of Geophysical Research*
Rastani, K., Inan, U., Helliwell, R. A.
1985
- **Wave-induced precipitation as a loss process for radiation belt particles** *Advances in Space Research*
Inan, U., Chang, H. C., Helliwell, R. A., Katsufurakis, P., Imhof, W. L.
1985
- **Subionospheric VLF/LF phase perturbations produced by lightning-whistler induced particle precipitation** *Journal of Geophysical Research*
Inan, U., Carpenter, D. L., Helliwell, R. A., Katsufurakis, P.
1985
- **Transient tropospheric electric fields resulting from sudden changes in ionospheric conductivity** *Journal of Geophysical Research*
Dejnakarintra, M., Inan, U., Carpenter, D. L.
1985
- **A new type of VLF emission triggered at low altitude in the subauroral region by Siple Station VLF transmitter signals** *Journal of Geophysical Research*
Inan, U., Bell, T. F., Katsufurakis, P., James, G.
1985
- **Results from the SEEP active space plasma experiment - Effects on the ionosphere** *Radio Science*
Inan, U., Imhof, W. L., Gaines, E., Voss, D., Reagan, J. B., Datlowe, D. W.
1985
- **Recent research on magnetospheric wave-particle interactions** *National Institute Polar Research Memoirs*
Helliwell, R. A., Inan, U., Katsufurakis, P., Carpenter, D. L., Paschal, E. W.
1985
- **The Stanford University ELF/VLF radiometer project Measurement of the global distribution of ELF/VLF electromagnetic noise** *International Symposium on Electromagnetic Compatibility*
Inan, U., Fraser-Smith, A. C., Helliwell, R. A.
1985

- **Variable frequency VLF signals in the magnetosphere Associated phenomena and plasma diagnostics** *Journal of Geophysical Research*
Inan, U., Carlson, C. R., Helliwell, R. A., Carpenter, D. L.
1985
- **Spectral broadening of VLF transmitter signals observed on DE 1 - A quasi-electrostatic phenomenon?** *Journal of Geophysical Research*
Inan, U., Bell, T. F.
1985
- **A new VLF method for studying burst precipitation near the plasmopause** *Journal of Geophysical Research*
Carpenter, D. L., Inan, U., Paschal, E. W., Smith, J.
1985
- **Characterization of the sources of VLF hiss and chorus observed on Geos 1** *Journal of Geophysical Research*
Lefeuvre, F., Helliwell, R. A.
1985
- **TRANSIENT TROPOSPHERIC ELECTRIC-FIELDS RESULTING FROM SUDDEN CHANGES IN IONOSPHERIC CONDUCTIVITY** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
DEJNAKARINTRA, M., Inan, U. S., Carpenter, D. L.
1985; 90 (NA12): 2271-2281
- **SUBIONOSPHERIC VLF LF PHASE PERTURBATIONS PRODUCED BY LIGHTNING-WHISTLER INDUCED PARTICLE-PRECIPIATION** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Inan, U. S., Carpenter, D. L., Helliwell, R. A., KATSUFRAKIS, J. P.
1985; 90 (NA8): 7457-7469
- **WHISTLER-TRIGGERED VLF NOISE BURSTS OBSERVED ON THE DE-1 SATELLITE AND SIMULTANEOUSLY AT ANTARCTIC GROUND STATIONS** *ANNALES GEOPHYSICAE*
SMITH, A. J., Carpenter, D. L., Inan, U. S.
1985; 3 (1): 81-88
- **LIGHTNING-INDUCED ELECTRON-PRECIPIATION FROM THE MAGNETOSPHERE** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Chang, H. C., Inan, U. S.
1985; 90 (NA2): 1531-1541
- **DE-1 OBSERVATIONS OF SIPLE TRANSMITTER SIGNALS AND ASSOCIATED SIDEBANDS** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Rastani, K., Inan, U. S., Helliwell, R. A.
1985; 90 (NA5): 4128-4140
- **RESULTS FROM THE SEEP ACTIVE SPACE PLASMA-EXPERIMENT - EFFECTS ON THE IONOSPHERE** *RADIO SCIENCE*
Imhof, W. L., Gaines, E. E., Voss, H. D., REAGAN, J. B., Datlowe, D. W., Mobilia, J., Helliwell, R. A., Inan, U. S., KATSUFRAKIS, J., JOINER, R. G.
1985; 20 (3): 511-518
- **TEST PARTICLE MODELING OF WAVE-INDUCED ENERGETIC ELECTRON-PRECIPIATION** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Chang, H. C., Inan, U. S.
1985; 90 (NA7): 6409-6418
- **ELECTRON-PRECIPIATION ZONES AROUND MAJOR GROUND-BASED VLF SIGNAL SOURCES** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Inan, U. S., Chang, H. C., Helliwell, R. A.
1984; 89 (NA5): 2891-2906
- **DIURNAL-VARIATION OF BURST PRECIPIATION EFFECTS ON SUBIONOSPHERIC VLF/LF SIGNAL PROPAGATION NEAR L = 2** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Leyser, T. B., Inan, U. S., Carpenter, D. L., Trimpi, M. L.
1984; 89 (NA10): 9139-9143
- **Phase measurements of whistler mode signals from the Siple VLF transmitter** *Journal of Geophysical Research*

- Inan, U., Paschal, E. W., Helliwell, R. A.
1984
- **Perturbations of subionspheric LF and MF signals due to whistler-induced electron precipitation bursts** *Journal of Geophysical Research*
Carpenter, D. L., Inan, U., Trimpi, L., Helliwell, R. A., Katsuftrakis, J. P.
1984
 - **Whistler induced suppression of VLF noise** *Journal of Geophysical Research*
Inan, U., Gail, W. B., Carpenter, D. L.
1984
 - **Modulated beam injection from the Space Shuttle during magnetic conjunctions of STS 3 with the DE 1 satellite** *Radio Science*
Inan, U., Pon, M., Banks, M., Williamson, R., Raitt, W. J., Shawhan, S. G.
1984
 - **Diurnal variation of burst precipitation effects on subionspheric VLF /LF signal propagation near L = 2** *Journal of Geophysical Research*
Leysner, T. B., Inan, U., Carpenter, D. L., Trimpi, L.
1984
 - **The nonlinear gyroresonance interaction between energetic electrons and coherent VLF waves propagating at an arbitrary angle with respect to the earth's magnetic field** *Journal of Geophysical Research*
Inan, U., Bell, T. F.
1984
 - **Electron precipitation zones around major ground-based VLF signalsources** *Journal of Geophysical Research*
Inan, U., Chang, H. C., Helliwell, R. A.
1984
 - **Lightning-induced electron precipitation** *Nature*
Voss, H. D., Imhof, W. L., Walt, M., Mobilia, J., Gaines, E. E., Reagan, J. B., Inan, U. S.
1984
 - **PERTURBATIONS OF SUBIONOSPHERIC LF AND MF SIGNALS DUE TO WHISTLER-INDUCED ELECTRON-PRECIPIATION BURSTS** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Carpenter, D. L., Inan, U. S., Trimpi, M. L., Helliwell, R. A., KATSUFRAKIS, J. P.
1984; 89 (NA11): 9857-9862
 - **LIGHTNING-INDUCED ELECTRON-PRECIPIATION NATURE**
Voss, H. D., Imhof, W. L., Walt, M., Mobilia, J., Gaines, E. E., REAGAN, J. B., Inan, U. S., Helliwell, R. A., Carpenter, D. L., KATSUFRAKIS, J. P., Chang, H. C.
1984; 312 (5996): 740-742
 - **DIRECT MULTIPLE PATH MAGNETOSPHERIC PROPAGATION - A FUNDAMENTAL PROPERTY OF NONDUCTED VLF WAVES** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Sonwalkar, V. S., Bell, T. F., Helliwell, R. A., Inan, U. S.
1984; 89 (NA5): 2823-2830
 - **NONLINEAR PITCH ANGLE SCATTERING AND TRAPPING OF ENERGETIC PARTICLES DURING LANDAU RESONANCE INTERACTIONS WITH WHISTLER MODE WAVES** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
TKALCEVIC, S., Inan, U. S., Helliwell, R. A.
1984; 89 (NA12): 813-826
 - **MODULATED BEAM INJECTION FROM THE SPACE-SHUTTLE DURING MAGNETIC CONJUNCTIONS OF STS-3 WITH THE DE-1 SATELLITE** *RADIO SCIENCE*
Inan, U. S., PON, M., BANKS, P. M., Williamson, P. R., Raitt, W. J., SHAWHAN, S. D.
1984; 19 (2): 487-495
 - **THE MODULATED PRECIPITATION OF RADIATION BELT ELECTRONS BY CONTROLLED SIGNALS FROM VLF TRANSMITTERS** *GEOPHYSICAL RESEARCH LETTERS*
Imhof, W. L., REAGAN, J. B., Voss, H. D., Gaines, E. E., Datlowe, D. W., Mobilia, J., Helliwell, R. A., Inan, U. S., KATSUFRAKIS, J., JOINER, R. G.
1983; 10 (8): 615-618

- **EXOS-B/Siple station VLF wave-particle interaction experiments. I- General description and wave-particle correlations** *Journal of Geophysical Research*
Kimura, I., K, H., Matsumoto, H., Mukai, T., Bell, T. F., Inan, U.
1983
- **Very-low frequency signals (2-10 kHz) received at Palmer Station, Antarctica, from the 21.4 km dipole antenna at Siple Station, 1400 km distant** *Journal of Atmospheric and Terrestrial Physics*
Inan, U., Tkalcevic, S.
1983
- **Photometric evidence of electron precipitation induced by first HOP whistlers** *Geophysical Research Letters*
Inan, U., Doolittle, J. H., Carpenter, D. L.
1983
- **In situ measurements of transionospheric VLF wave injection** *Journal of Geophysical Research*
Inan, U., M, K. P., Brittain, R., Kelley, C., Carpenter, D. L., Rycroft, M. J.
1983
- **{Energetic electron precipitation due to gyroresonant interactions in the magnetosphere involving coherent VLF waves with slowly varying frequency}** *Journal of Geophysical Research*
Chang, H. C., Inan, U., Bell, T. F.
1983
- **Rare ground-based observations of Siple VLF transmitter signals outside the plasmopause** *Journal of Geophysical Research*
Inan, U., Carpenter, D. L., Miller, R.
1983
- **EXOS-B/Siple station VLF wave-particle interaction experiments. II - Transmitter signals and associated emissions** *Journal of Geophysical Research*
Bell, T. F., Inan, U., Kimura, I., Hashimoto, K., Matsumoto, H., Mukai, T.
1983
- **Ground observations of power line radiation coupled to the ionosphere and magnetosphere** *Space Science Reviews*
Inan, U., Park, C. G., Helliwell, R. A., Lefevre, F.
1983
- **Some aspects of plasmopause probing by whistlers** *Radio Science*
Inan, U., Inan, U.
1983
- **Quasi-relativistic electron precipitation due to interactions with coherent VLF waves in the magnetosphere** *Journal of Geophysical Research*
Chang, H. C., Inan, U.
1983
- **Terrestrial versus Jovian VLF chorus - A comparative study** *Journal of Geophysical Research*
Inan, U., Helliwell, R. A., Kurth, S.
1983
- **Occurrence properties of ducted whistler-mode signals from the new VLF transmitter at Siple Station, Antarctica** *Journal of Geophysical Research*
Inan, U., Carpenter, D. L., Bao, T.
1983
- **Standing wave patterns in VLF hiss** *Journal of Geophysical Research*
Inan, U., Brittain, R., Kintner, M., Kelley, C., Siren, J. C., Carpenter, D. L.
1983
- **Controlled stimulation of VLF emissions from Siple Station, Antarctica** *Radio Science*
Inan, U., Carpenter, D. L.
1983
- **A theoretical model study of observed correlations between whistler mode waves and energetic electron precipitation events in the magnetosphere** *Journal of Geophysical Research*

- Chang, H. C., Inan, U.
1983
- **VLF wave injections from the ground** *ESA Special Publication*
Inan, U., Helliwell, R. A.
1983
 - **ENERGETIC ELECTRON-PRECIPIATION DUE TO GYRORESONANT INTERACTIONS IN THE MAGNETOSPHERE INVOLVING COHERENT-VLF WAVES WITH SLOWLY VARYING FREQUENCY** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Chang, H. C., Inan, U. S., Bell, T. F.
1983; 88 (NA9): 7037-7050
 - **QUASI-RELATIVISTIC ELECTRON-PRECIPIATION DUE TO INTERACTIONS WITH COHERENT VLF WAVES IN THE MAGNETOSPHERE** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Chang, H. C., Inan, U. S.
1983; 88 (NA1): 318-328
 - **TERRESTRIAL VERSUS JOVIAN VLF CHORUS - A COMPARATIVE-STUDY** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Inan, U. S., Helliwell, R. A., Kurth, W. S.
1983; 88 (NA8): 6171-6180
 - **A THEORETICAL-MODEL STUDY OF OBSERVED CORRELATIONS BETWEEN WHISTLER MODE WAVES AND ENERGETIC ELECTRON-PRECIPIATION EVENTS IN THE MAGNETOSPHERE** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Chang, H. C., Inan, U. S.
1983; 88 (NA12): 53-58
 - **EXOS-B SIPLE STATION VLF WAVE-PARTICLE INTERACTION EXPERIMENTS .2. TRANSMITTER SIGNALS AND ASSOCIATED EMISSIONS** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Bell, T. F., Inan, U. S., Kimura, I., Matsumoto, H., Mukai, T., HASHIMOTO, K.
1983; 88 (NA1): 295-309
 - **THE APPARENT SPECTRAL BROADENING OF VLF TRANSMITTER SIGNALS DURING TRANSIONOSPHERIC PROPAGATION** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Bell, T. F., James, H. G., Inan, U. S., KATSUFRAKIS, J. P.
1983; 88 (NA6): 4813-4840
 - **EXOS-B SIPLE STATIONS VLF WAVE-PARTICLE INTERACTION EXPERIMENTS .1. GENERAL DESCRIPTION AND WAVE-PARTICLE CORRELATIONS** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Kimura, I., Matsumoto, H., Mukai, T., HASHIMOTO, K., Bell, T. F., Inan, U. S., Helliwell, R. A., KATSUFRAKIS, J. P.
1983; 88 (NA1): 282-294
 - **DIRECT OBSERVATION OF RADIATION BELT ELECTRONS PRECIPITATED BY THE CONTROLLED INJECTION OF VLF SIGNALS FROM A GROUND-BASED TRANSMITTER** *GEOPHYSICAL RESEARCH LETTERS*
Imhof, W. L., REAGAN, J. B., Voss, H. D., Gaines, E. E., Datlowe, D. W., Mobilia, J., Helliwell, R. A., Inan, U. S., KATSUFRAKIS, J., JOINER, R. G.
1983; 10 (4): 361-364
 - **PARTICLE-PRECIPIATION INDUCED BY SHORT-DURATION VLF WAVES IN THE MAGNETOSPHERE** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Inan, U. S., Bell, T. F., Chang, H. C.
1982; 87 (NA8): 6243-6264
 - **A study of whistlers correlated with bursts of electron precipitat ion near L = 2** *Journal of Geophysical Research*
Inan, U., Carptener, D. L., Labelle, J. W.
1982
 - **ISEE 1 observations of VLF line radiation in the earth's magnetosphere** *Journal of Geophysical Research*
Bell, T. F., Inan, U., Lurette, P.
1982
 - **Particle precipitation induced by short-duration VLF waves in themagnetosphere** *Journal of Geophysical Research*
Inan, U., Bell, T. F., Chang, C.

1982

- **DE-1 observations of VLF transmitter signals and wave-particle interactions in the magnetosphere** *Geophysical Research Letters*
Inan, U., Helliwell, R. A.
1982
- **Whistlers**
Inan, U., Park, C. G.
1982
- **Nonlinear equations of motion for Landau resonance interactions with a whistler mode wave** *Journal of Geophysical Research*
Inan, U., Inan, U.
1982
- **The influence of localized precipitation-induced D-region ionization enhancements on subionospheric VLF propagation** *Geophysical Research Letters*
Tolstoy, A., Rosenberg, T. J., Carpenter, D. L.
1982
- **Echoing mixed-path whistlers near the dawn plasmapause, observed by direction-finding receivers at two Antarctic stations** *Journal of Atmospheric and Terrestrial Physics*
Inan, U., Inan, U., Carpenter, D. L.
1982
- **ISEE-1 OBSERVATIONS OF VLF LINE RADIATION IN THE EARTH'S MAGNETOSPHERE** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Bell, T. F., LUETTE, J. P., Inan, U. S.
1982; 87 (NA5): 3530-3536
- **DE-1 OBSERVATIONS OF VLF TRANSMITTER SIGNALS AND WAVE-PARTICLE INTERACTIONS IN THE MAGNETOSPHERE** *GEOPHYSICAL RESEARCH LETTERS*
Inan, U. S., Helliwell, R. A.
1982; 9 (9): 917-920
- **NON-LINEAR EQUATIONS OF MOTION FOR LANDAU RESONANCE INTERACTIONS WITH A WHISTLER MODE WAVE** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Inan, U. S., TKALCEVIC, S.
1982; 87 (NA4): 2363-2367
- **VLF WAVE GROWTH AND DISCRETE EMISSION TRIGGERING IN THE MAGNETOSPHERE - A FEEDBACK MODEL** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Helliwell, R. A., Inan, U. S.
1982; 87 (NA5): 3537-3550
- **NONDUCTED COHERENT VLF WAVES AND ASSOCIATED TRIGGERED EMISSIONS OBSERVED ON THE ISEE-1 SATELLITE** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Bell, T. F., Inan, U. S., Helliwell, R. A.
1981; 86 (NA6): 4649-4670
- **A ground-satellite study of wave-particle correlations** *Journal of Geophysical Research*
Inan, U., Park, C. G., Parks, K., Lin, S.
1981
- **A study of the outer limits of ducted whistler propagation in the magnetosphere** *Journal of Geophysical Research*
Inan, U., Carpenter, D. L.
1981
- **A comparison of equatorial electron densities measured by whistlers and by a satellite radio technique** *Geophysical Research Letters*
Inan, U., Carpenter, D. L., Bell, T. F., Miller, R., Anderson, R. R.
1981
- **Active and passive VLF experiments at Siple Station, 1980-1981** *Antarctic Journal*

-
- Inan, U., Carpenter, D. L.
1981
- **Satellite measurements during Siple Station VLF wave-injection experiments** *Antarctic Journal*
Bell, T. F., Inan, U.
1981
 - **Generation of whistler-mode sidebands in the magnetosphere** *Journal of Geophysical Research*
Inan, U., Park, C. G.
1981
 - **Electron precipitation induced by VLF noise bursts at the plasmopause and detected at conjugate ground stations** *Journal of Geophysical Research*
Inan, U., Dingle, B., Carpenter, D. L.
1981
 - **Longitudinal variations of plasmopause radius and the propagation of VLF noise within small ΔL approximately 0.5 extensions of the plasmasphere** *Geophysical Research Letters*
Inan, U., Smith, A. J., Carpenter, D. L., Lester, M.
1981
 - **Transient nonlinear pitch angle scattering of energetic electrons by coherent VLF wave packets in the magnetosphere** *Journal of Geophysical Research*
Bell, T. F., Inan, U.
1981
 - **The plasma wave and quasi-static electric field instrument /PWI/ for dynamics Explorer-A** *Space Science Instrumentation*
Inan, U., Shawhan, S. D., Gurnett, D. A., Odem, L., Helliwell, R. A., Park, C. G.
1981
 - **Jikiken /EXOS-B/ observation of Siple transmissions** *Advances in Space Research*
Kimura, I., Matsumoto, H., Hashimoto, K., Mukai, T., Helliwell, R. A., Bell, T. F., Inan, U. S.
1981
 - **VLF transmissions from Siple Station** *Antarctic Journal*
Inan, U., Katsufurakis, J. P.
1981
 - **A VLF transmitter on the Space Shuttle** *Advances in Space Research*
Inan, U., Bell, T. F., Helliwell, R. A., Katsufurakis, P.
1981
 - **Power line radiation in the magnetosphere** *Advances in Space Research*
Inan, U., Park, C. G., Helliwell, R. A.
1981
 - **Conjugacy of electron microbursts and VLF chorus** *Journal of Geophysical Research*
Inan, U., Rosenberg, T. J., Siren, C., Matthews, L., Marthinsen, K., Holtet, J. A.
1981
 - **New upper atmosphere program at South Pole Station,** *Antarctic Journal*
Inan, U., Carpenter, D. L., Katsufurakis, P.
1981
 - **ISEE-1 observations in the magnetosphere of VLF emissions triggered by nonducted coherent VLF waves during VLF wave-injection experiments** *Advances in Space Research*
Bell, T. F., Inan, U.
1981
 - **TRANSIENT NON-LINEAR PITCH ANGLE SCATTERING OF ENERGETIC ELECTRONS BY COHERENT VLF WAVE-PACKETS IN THE MAGNETOSPHERE** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Bell, T. F., Inan, U. S.
1981; 86 (NA11): 9047-9063

- **Observations of Siple transmitter signals on the ISIS satellites** *Antarctic Journal*
Inan, U., Katsufurakis, J. P., Helliwell, R. A., James, G.
1980
- **ELF spheric occurrences in the Antarctic during a solar proton event - Case study of occurrences at Byrd Station during the event of June 9, 1968** *Journal of Geophysical Research*
Inan, U., Fraser-Smith, A. C., Helliwell, R. A.
1980
- **Photometrically detected precipitation bursts at the conjugate point of Siple Station** *Antarctic Journal*
Inan, U.
1980
- **VLF pulse propagation in the magnetosphere** *IEEE Transactions on Antennas and Propagation*
Inan, U., Chang, D. C., Helliwell, R. A.
1980
- **First simultaneous observations of magnetospheric plasma drifts by the whistler and incoherent scatter radar methods** *Antarctic Journal*
Inan, U., Carpenter, D. L., Miller, R., Gonzales, A., Kelley, M., Wand, R. H.
1980
- **Power-Line Radiation** *Science*
Inan, U., Park, C. G., Helliwell, R. A.
1980
- **On possible causes of apparent longitudinal variations in OGO 3 observations of VLF chorus** *Journal of Geophysical Research*
Inan, U., Russell, C. .
1980
- **Correlation between lambda 4278-A optical emissions and a Pc 1 pearl event observed at Siple Station, Antarctica** *Journal of Geophysical Research*
Inan, U., Mende, S. B., Arnoldy, L., Cahill Jr., L., Doolittle, J. H., Armstrong, W. C.
1980
- **Side-band mutual interactions in the magnetosphere** *Journal of Geophysical Research*
Inan, U., Chang, D. C., Helliwell, R. A., Bell, T. F.
1980
- **Correlation between lambda 4278 optical emissions and VLF wave events observed at L approximately 4 in the Antarctic** *Journal of Geophysical Research*
Inan, U., Helliwell, R. A., Doolittle, H., Armstrong, C., Carpenter, D. L., Mende, S. B.
1980
- **Power threshold for growth of coherent VLF signals in the magnetosphere** *Journal of Geophysical Research*
Inan, U., Helliwell, R. A., Carpenter, D. L., Miller, R.
1980
- **Simultaneous measurements of ionospheric and magnetospheric electric fields in the outer plasmasphere** *Geophysical Research Letters*
Inan, U., Gonzales, C. A., Kelley, C., Carpenter, D. L., Miller, T. R., Wand, R. H.
1980
- **VLF studies at Palmer Station, Antarctica** *Antarctic Journal*
Inan, U., Carpenter, D. L., Tkalcevic, S.
1980
- **Comparison of ground-based and satellite measurements of plasma densities in space** *Antarctic Journal*
Inan, U., Carpenter, D. L., Miller, R., Bell, T. F., Anderson, R. R., Gurnett, D. A.
1980
- **Characteristics of the common origin of electron microbursts and VLF chorus** *Antarctic Journal*
Inan, U., Siren, J. C., Rosenberg, T. J., Detrick, D., Carpenter, D. L.
1980

- **Fast fluctuations in the arrival bearing of magnetospherically propagating signals from the Siple, Antarctica, VLF transmitter** *Journal of Geophysical Research*
Inan, U., Carpenter, D. L.
1980
- **Stimulation of Pc 1 geomagnetic pulsations by naturally occurring repetitive VLF activity** *Geophysical Research Letters*
Inan, U., Fraser-Smith, A. C., Helliwell, R. A.
1980
- **High altitude satellite observations of signals from the Siple transmitter** *Antarctic Journal*
Bell, T. F., Inan, U., Kimura, I., Matsumoto, H.
1980
- **ISEE-1 satellite observations of VLF signals and associated triggered emissions from the Siple Station transmitter, IMS in Antarctica** *First Int'l. Symposium on IMS in Melbourne*
Bell, T. F., Inan, U., Helliwell, R. A.
1980
- **Cold plasma diagnostics using ISEE-1 satellite measurements of nonducted VLF waves from Siple Station transmitter** *Antarctic Journal*
Inan, U., Bell, T. F.
1979
- **Sunday decreases in magnetospheric VLF wave activity** *Journal of Geophysical Research*
Inan, U., Park, C. G., Miller, R.
1979
- **Comparison of two-dimensional and three-dimensional mapping of ionospheric electric field** *Journal of Geophysical Research*
Inan, U., Park, C. G.
1979
- **The control of the magnetosphere by power line radiation** *Journal of Geophysical Research*
Inan, U., Luette, J. P., Park, C. G., Helliwell, R. A.
1979
- **VLF direction finding from Palmer Station** *Antarctic Journal*
Inan, U.
1979
- **Siple station experiments on wave-particle interactions in the magnetosphere**
Inan, U., Helliwell, R. A.
1979
- **Theory and analysis of the 'Super Whistler'** *Journal of Geophysical Research*
Inan, U., Bernhardt, P. A.
1979
- **Emission triggering in the magnetosphere by controlled interruption of coherent VLF signals** *Journal of Geophysical Research*
Inan, U., Chang, D., Helliwell, R. A.
1979
- **Effects of power line radiation into the magnetosphere**
Inan, U., Helliwell, R. A.
1979
- **A model of substorm electric fields in the plasmasphere based on whistler data** *Journal of Geophysical Research*
Inan, U., Carpenter, D. L., Park, C. G., Miller, R.
1979
- **ISEE-1 SATELLITE-OBSERVATIONS OF SIGNALS FROM THE SIPLE TRANSMITTER** *ANTARCTIC JOURNAL OF THE UNITED STATES*
Inan, U. S., Bell, T. F.

1978; 13 (4): 203-204

- **PITCH ANGLE SCATTERING OF RADIATION BELT PARTICLES BY MAN-MADE WAVES IN MAGNETOSPHERE**
INAN, U. S., BELL, T. F., HELLIWELL, R. A.
AMER GEOPHYSICAL UNION.1978: 362
- **ENERGETIC PARTICLE PRECIPITATION INDUCED BY GROUND AND SPACE-SHUTTLE BASED VLF TRANSMITTERS**
INAN, U. S., BELL, T. F., HELLIWELL, R. A.
AMER GEOPHYSICAL UNION.1978: 1160
- **NOVEL-APPROACH FOR FINDING SPECTRUM OF PERIODICALLY MODULATED FM CARRIERS** *IEEE TRANSACTIONS ON COMMUNICATIONS*
YAVUZ, D., INAN, U. S.
1978; 26 (8): 1309–15
- **ISEE-1 SATELLITE-OBSERVATIONS OF SIGNALS FROM GROUND VLF TRANSMITTERS**
BELL, T. F., INAN, U. S., HELLIWELL, R. A.
AMER GEOPHYSICAL UNION.1978: 1159
- **Modeling of VLF ducts in the plasmasphere** *Operational Modelling of the Aerospace Propagation Environment*
Inan, U.
1978; 1
- **Jupiter: A new tool for magnetospheric research** *Antarctic Journal*
Inan, U., Trabucco, W. J., Paschal, E. W.
1978
- **A novel approach for finding the spectrum of periodically modulated FM carriers** *IEEE Transactions on Communications*
Yavuz, D., Inan, U.
1978
- **Siple station experiments on wave-particle interactions in the magnetosphere**
Inan, U., Helliwell, R. A.
1978
- **{Whistlers and VLF noises propagating just outside the plasmopause}** *Journal of Geophysical Research*
Inan, U., Carpenter, D. L.
1978
- **Plasmapause signatures in the ionosphere and magnetosphere** *Journal of Geophysical Research*
Inan, U., Foster, J. C., Park, C. G., Brace, H., Maier, E. J., Burrows, J. R.
1978
- **Initial results from a tracking receiver direction finder for whistler mode signals** *Journal of Geophysical Research*
Inan, U., Leavitt, M. K., Carpenter, D. L., Seely, T., Padden, R. R., Doolittle, J. H.
1978
- **Magnetospheric effects of power line radiation** *Science*
Inan, U., Park, C. G., Helliwell, R. A.
1978
- **Nonlinear pitch angle scattering of energetic electrons by coherent VLF waves in the magnetosphere** *Journal of Geophysical Research*
Inan, U., Bell, T. F., Helliwell, R. A.
1978
- **Electron density in the plasmasphere - Whistler data on solar cycle, annual, and diurnal variations** *Journal of Geophysical Research*
Inan, U., Park, C. G., Carpenter, D. L., Wiggin, B.
1978
- **Introduction, Paper 1 in Upper Atmosphere Research in Antarctica** *Antarctic Research Series*
Inan, U., Lanzerotti, L. J., Park, C. G.

1978

- **The Stanford University VLF wave injection experiment on the ISEE-A spacecraft** *IEEE Transactions on Geoscience Electronics*
Inan, U., Bell, T. F., Helliwell, R. A.
1978
- **Island earth in a solar sea** *Mosaic*
Inan, U., Lanzerotti, L. J., Park, C. G.
1978
- **Wave-induced particle precipitation effects at Siple Station** *XIII*
Inan, U., Doolittle, J. H., Armstrong, C., Katsufurakis, P., Carpenter, D. L.
1978
- **ISEE-1 satellite observations of signals from the Siple transmitter** *Antarctic Journal*
Inan, U., TF, T. F.
1978
- **New whistler evidence of a dynamo origin of electric fields in the quiet plasmasphere** *Journal of Geophysical Research*
Inan, U., Carpenter, D. L.
1978
- **Very low frequency radio waves in the magnetosphere, Paper 4 in Upper Atmosphere Research in Antarctica** *Upper Atmosphere Research in Antarctica*
Inan, U., Park, C. G., Carpenter, D. L.
1978
- **Controlled wave-particle interaction experiments, Paper 5 in Upper Atmosphere Research in Antarctica** *Upper Atmosphere Research in Antarctica*
Inan, U., Helliwell, R. A., Katsufurakis, P.
1978
- **Effects of power line radiation into the magnetosphere**
Inan, U., Helliwell, R. A.
1978
- **Transmitter simulation of power line radiation effects in the magnetosphere** *Geophysical Research Letters*
Inan, U., Park, C. G., Chang D, D.
1978
- **Whistler observations of substorm electric fields in the nightside plasmasphere** *Journal of Geophysical Research*
Inan, U., Park, C. G.
1978
- **Siple/Roberval magnetospheric wave-wave interaction experiments** *Antarctic Journal*
Inan, U., Helliwell, R. A., Chang D, D.
1978
- **NON-LINEAR PITCH ANGLE SCATTERING OF ENERGETIC ELECTRONS BY COHERENT VLF WAVES IN MAGNETOSPHERE** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Inan, U. S., Bell, T. F., Helliwell, R. A.
1978; 83 (NA7): 3235-3253
- **COLD-PLASMA DIAGNOSTICS USING SATELLITE MEASUREMENTS OF VLF SIGNALS FROM GROUND TRANSMITTERS** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
Inan, U. S., Bell, T. F., Anderson, R. R.
1977; 82 (7): 1167-1176
- **NONLINEAR PITCH ANGLE AND ENERGY SCATTERING OF ENERGETIC ELECTRONS TRAPPED BY COHERENT VLF WAVES IN MAGNETOSPHERE**
INAN, U. S., BELL, T. F.
AMER GEOPHYSICAL UNION.1977: 1216

- **SCATTERING OF ENERGETIC ELECTRONS IN MAGNETOSPHERE USING INJECTED VLF WAVES**
INAN, U. S., BELL, T. F., HELLIWELL, R. A.
AMER GEOPHYSICAL UNION.1977: 468
- **Active Very Low Frequency Experiments on the Magnetosphere from Siple Station, Antarctica** *Royal Society of London Philosophical Transactions Series B*
Inan, U., Helliwell, R. A.
1977
- **A comparison of ULF and VLF measurements of magnetospheric cold plasma densities** *Journal of Geophysical Research*
Inan, U., Webb, C. D., Lanzerotti, J., Park, C. G.
1977
- **Protonospheric-ionospheric modeling of VLF ducts** *Journal of Geophysical Research*
Inan, U., Bernhardt, P. A., Park, C. G.
1977
- **Echo-induced suppression of coherent VLF transmitter signals in the magnetosphere** *Journal of Geophysical Research*
Inan, U., Raghuram, R., Bell, T. F., Helliwell, R. A., Katsufurakis, J. P.
1977
- **Longitudinal variations of very-low-frequency chorus activity in the magnetosphere - Evidence of excitation by electrical power transmission lines** *Geophysical Research Letters*
Inan, U., Luette, J. P., Park, C. G., Helliwell, R. A.
1977
- **Coherent wave induced particle precipitation into the upper atmosphere**
Inan, U., Bell, T. F., Helliwell, R. A.
1977
- **Stimulated growth of coherent VLF waves in the magnetosphere** *Journal of Geophysical Research*
Inan, U., Stiles, G. S., Helliwell, R. A.
1977
- **Cold plasma diagnostics using satellite measurements of VLF signals from ground transmitters** *Journal of Geophysical Research*
Inan, U., Bell, T. F., Anderson, R.
1977
- **A quiet band produced by VLF transmitter signals in the magnetosphere** *Geophysical Research Letters*
Inan, U., Raghuram, R., Bell, T. F., Helliwell, R. A., Katsufurakis, J. P.
1977
- **VLF wave activity during a magnetic storm - A case study of the role of power line radiation** *Journal of Geophysical Research*
Inan, U., Park, C. G.
1977
- **Whistler precursors - A possible catalytic role of power line radiation** *Journal of Geophysical Research*
Inan, U., Park, C. G., Helliwell, R. A.
1977
- **Spacecraft observations of man-made whistler-mode signals near the electron gyrofrequency** *Radio Science*
Inan, U., Dunckel, N., Helliwell, R. A.
1977
- **Modification of the propagation characteristics of the ionosphere (and the magnetosphere) by injection into the magnetosphere of whistler-mode waves** *AGARD Artificial Modification of Propagation Media*
Inan, U., Helliwell, R. A.
1977; 8: SEE N77-19530 10-42
- **The effects of magnetospheric convection on atmospheric electric fields in the polar cap** *Garmisch Conference*
Inan, U., Dejnakintra, M., Park, C. G.

1977

- **Thundercloud electric field in the ionosphere** *Garmisch Conference*

Inan, U., Park, C. G., Dejnakarindra, M.

1977

- **Explorer 45 and Imp 6 observations in the magnetosphere of injected waves from the Siple Station VLF transmitter** *Journal of Geophysical Research*

Inan, U., Bell, T. F., Carpenter, D. L., Anderson, R.

1977

- **EXPLORER-45 AND IMP-6 OBSERVATIONS IN MAGNETOSPHERE OF INJECTED WAVES FROM SIPLE STATION VLF TRANSMITTER** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*

Inan, U. S., Bell, T. F., Carpenter, D. L., Anderson, R. R.

1977; 82 (7): 1177-1187

- **PLASMAPAUSE AS A VLF WAVE GUIDE** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*

Inan, U. S., Bell, T. F.

1977; 82 (19): 2819-2827

- **Outlying plasmasphere structure detected by whistlers** *Planetary and Space Science*

Inan, U., Ho, D., Carpenter, D. L.

1976

- **COHERENT WAVE INDUCED PITCH ANGLE SCATTERING OF ENERGETIC ELECTRONS IN MAGNETOSPHERE**

INAN, U. S., BELL, T. F.

AMER GEOPHYSICAL UNION.1976: 986

- **Substorm electric fields in the evening plasmasphere and their effects on the underlying F layer** *Journal of Geophysical Research*

Inan, U., Park, C. G.

1976

- **Cross-L plasma drifts in the outer plasmasphere - Quiet time patterns and some substorm effects** *Journal of Geophysical Research*

Inan, U., Carpenter, D. L., Seely, T.

1976

- **Magnetospheric chorus - Occurrence patterns and normalized frequency** *Planetary and Space Science*

Inan, U., Burtis, W. J., Helliwell, R. A.

1976

- **Kilometric type III burst enhancements associated with interplanetary shocks** *Solar Physics*

Inan, U., Dunckel, N.

1976

- **Downward mapping of high-latitude ionospheric electric fields to the ground** *Journal of Geophysical Research*

Inan, U., Park, C. G.

1976

- **Whistler observations of the dynamical behavior of the plasmapause during June 17-22, 1973** *Geophysical Research Letters*

Inan, U., Park, C. G., Seely, T.

1976

- **The upper- and lower-frequency cutoffs of magnetospherically reflected whistlers** *Journal of Geophysical Research*

Inan, U., Edgar, B. C.

1976

- **Ducted magnetospheric propagation of signals from the Siple, Antarctica, VLF transmitter** *Journal of Geophysical Research*

Inan, U., Carpenter, D. L., Miller, R.

1976

- **ULF wave generation through particle precipitation induced by VLF transmitters** *Journal of Geophysical Research*

Inan, U., Bell, T. F.

1976

- **Solar magnetic sector effects on the vertical atmospheric electric field at Vostok, Antarctica** *Geophysical Research Letters*
Inan, U., Park, C. G.
1976
- **Aftereffects of isolated magnetospheric substorm activity on the mid-latitude ionosphere - Localized depressions in F layer electron densities** *Journal of Geophysical Research*
Inan, U., Park, C. G., Meng, C. I.
1976
- **SATELLITE-OBSERVATIONS OF NONDUCTED SIGNALS FROM SIPLE TRANSMITTER** *ANTARCTIC JOURNAL OF THE UNITED STATES*
Bell, T. F., Inan, U.
1975; 10 (5): 211-214
- **Fast hissers in substorms** *Journal of Geophysical Research*
Inan, U., Siren, J. C.
1975
- **Depletion of the F2 region ionosphere and the protonosphere by the release of molecular hydrogen** *Geophysical Research Letters*
Inan, U., Bernhardt, P. A., Park, C. G., Banks, M.
1975
- **Siple Transmitter signals as diagnostic probes of the magnetosphere** *Antarctic Journal*
Inan, U., Carpenter, D. L., Miller, R.
1975
- **Satellite observations of nonducted signals from the Siple transmitter** *Antarctic Journal*
Bell, T. F., Inan, U.
1975
- **Frequency-time behavior of artificially stimulated VLF emissions** *Journal of Geophysical Research*
Inan, U., Stiles, G. S., Helliwell, R. A.
1975
- **Magnetospheric chorus - Amplitude and growth rate** *Journal of Geophysical Research*
Inan, U., Burtis, W. J., Helliwell, R. A.
1975
- **VLF line radiation in the earth's magnetosphere and its association with power system radiation** *Journal of Geophysical Research*
Inan, U., Helliwell, R. A., Katsufurakis, P., Bell, T. F., Raghuram, R.
1975
- **A subauroral and mid-latitude view of substorm activity** *Journal of Geophysical Research*
Inan, U., Carpenter, D. L., Foster, J. C., Rosenberg, T. J., Lanzerotti, L. J.
1975
- **Comment on 'Fast time resolved spectral analysis of VLF banded emissions' by F. V. Coroniti, R. W. Fredricks, C. F. Kennel, and F. L. Scarf** *Journal of Geophysical Research*
Inan, U., Stiles, G. S.
1975
- **Whistler observations during a magnetospheric sudden impulse** *Journal of Geophysical Research*
Inan, U., Park, C. G.
1975
- **A new interpretation of subprotonospheric whistler characteristics** *Journal of Geophysical Research*
Inan, U., Raghuram, R.
1975
- **Reply** *Journal of Geophysical Research*

- Inan, U., Helliwell, R. A., Crystal, L.
1975
- **Coherent VLF waves in the magnetosphere** *Royal Society of London Philosophical Transactions Series A*
Inan, U., Helliwell, R. A.
1975
 - **Influence of thermal plasma flow on the daytime F2 layer** *Journal of Geophysical Research*
Inan, U., Park, C. G., Banks, M.
1975
 - **Influence of thermal plasma flow on the mid-latitude nighttime F2 layer - Effects of electric fields and neutral winds inside the plasmasphere** *Journal of Geophysical Research*
Inan, U., Park, C. G., Banks, M.
1974
 - **'Hisslers' - Quasi-periodic /T approximately equal to 2 sec/ VLF noise forms at auroral latitudes** *Journal of Geophysical Research*
Inan, U., Ungstrup, I. M., Carpenter, D. L.
1974
 - **VLF Wave Injection Into the Magnetosphere From Siple Station, Antarctica** *JOURNAL OF GEOPHYSICAL RESEARCH*
Inan, U., Helliwell, R. A.
1974
 - **Some Features of Plasma Distribution in the Plasmasphere Deduced From Antarctic Whistlers** *Journal of Geophysical Research*
Inan, U., Park, C. G.
1974
 - **Notes on Broadband whistler measurements of electric fields and associated phenomena, reprint from Memoirs of National institute of Polar Research, Tokyo**
Inan, U., Carpenter, D. L.
1974
 - **VLF Antarctic antenna: Impedance and efficiency** *IEEE Transactions on Antennas and Propagation*
Inan, U., Raghuram, R., Smith, R., Bell, T. F.
1974
 - **Controlled VLF Wave Injection Experiments in the Magnetosphere** *Space Science Reviews*
Inan, U., Helliwell, R. A.
1974
 - **A morphological study of substorm-associated disturbances in the ionosphere.** *Journal of Geophysical Research*
Inan, U., Park, C. G.
1974
 - **Derivation of magnetospheric electric fields from whistler data in a dynamic geomagnetic field.** *Journal of Geophysical Research*
Inan, U., Block, L. P., Carpenter, D. L.
1974
 - **Simultaneous Electric Field Measurements Near L = 4 From Conjugate Balloons and Whistlers** *Journal of Geophysical Research*
Inan, U., Mozer, F. S., Serlin, R., Carpenter, D. L., Siren, J.
1974
 - **Controlled VLF Experiments** *ELF-VLF Radio Wave Propagation*
Inan, U., Stiles, G. S.
1974
 - **Lightning-Induced Electric Fields in the Ionosphere** *Journal of Geophysical Research*
Inan, U., Dejnakarindra, M., Park, C. G.
1974

- **Balloon and VLF Whistler Measurements of Electric Fields, Equatorial Electron Density, and Precipitating Particles during a Barium Cloud Release in the Magnetosphere** *Journal of Geophysical Research*
Inan, U., Mozer, F. S., Carpenter, D. L.
1973
- **On input impedance of an arbitrarily oriented small loop antenna in a cold collisionless magnetoplasma** *IEEE Transactions on Antennas and Propagation*
Inan, U., Wang, T., Bell, T. F.
1973
- **Interaction between Whistlers and Quasi-Periodic VLF Emissions** *Journal of Geophysical Research*
Inan, U., Ho, D.
1973
- **A Feedback Model of Cyclotron Interaction between Whistler-Mode Waves and Energetic Electrons in the Magnetosphere** *Journal of Geophysical Research*
Inan, U., Helliwell, R. A., Crystal, L.
1973
- **On what ionospheric workers should know about the plasmopause-plasmasphere.** *Reviews of Geophysics and Space Physics*
Inan, U., Carpenter, D. L., Park, C. G.
1973
- **Penetration of Thundercloud Electric Fields into the Ionosphere and Magnetosphere, 1. Middle and Subauroral Latitudes** *Journal of Geophysical Research*
Inan, U., Park, C. G., Dejnakarindra, M.
1973
- **A new nose extension method for whistlers** *Journal of Atmospheric and Terrestrial Physics*
Inan, U., Bernard, L. C.
1973
- **A fast method to determine the nose frequency and minimum group delay of a whistler when the causative spheric is unknown** *Journal of Atmospheric and Terrestrial Physics*
Inan, U., Ho, D., Bernard, C.
1973
- **Satellite studies of magnetospheric substorms on August 15, 1968. Some features of magnetospheric convection.** *Journal of Geophysical Research*
Inan, U., Carpenter, D. L., Chappell, R.
1973; 3
- **Distortions of the nightside ionosphere during magnetospheric substorms.** *Journal of Geophysical Research*
Inan, U., Park, C. G., Meng, I.
1973
- **Whistler-Induced Amplitude Perturbation in VLF Propagation** *Journal of Geophysical Research*
Inan, U., Helliwell, R. A., Katsufurakis, P., Trimpi, L.
1973
- **Electron Concentrations Calculated from the Lower Hybrid Resonance Noise Band Observed by Ogo 3** *Journal of Geophysical Research*
Inan, U., Burtis, W. J.
1973
- **Whistler Observations of the Depletion of the Plasmasphere during a Magnetospheric Substorm** *Journal of Geophysical Research*
Inan, U., Park, C. G.
1973
- **Two substorm studies of relations between westward electric fields in the outer plasmasphere, auroral activity, and geomagnetic perturbations.** *Journal of Geophysical Research*
Inan, U., Carpenter, D. L., Akasofu, S. I.
1972

- **VLF/ELF input impedance of an arbitrarily oriented loop antenna in a cold collisionless multicomponent magnetoplasma** *IEEE Transactions on Antennas and Propagation*
Inan, U., Wang, T., Bell, T. F.
1972
- **Ogo 4 Observations of Extremely Low Frequency Hiss** *Journal of Geophysical Research*
Inan, U., Muzzio, J. L., Angerami, J. J.
1972
- **Type III Solar Noise Observed below 100 kHz on OGO 3. I. Description of Events** *Solar Physics*
Inan, U., Dunckel, N., Helliwell, R. A., Vesecky, J.
1972
- **Auroral hiss-Observation of brief bursts showing whistler-mode dispersion** *Nature*
Inan, U., Siren, J. C.
1972
- **Magnetospheric Electric Fields Deduced from Drifting Whistler Paths** *Journal of Geophysical Research*
Inan, U., Carpenter, D. L., Stone, K., Siren, C., Crystal, T. L.
1972
- **Electric dipole radiation at VLF in a uniform warm magnetoplasma** *Rev. de Physique Appliquee*
Inan, U., Wang, T. N., Bell, T. F.
1972
- **La plasmasphere en periode de recouvrement manetique. Etude combinee des donnees des satellites OGO-4, OGO-5 et des sifflements recus au sol** *Ann Geophys.*
Inan, U., Corcuff, Y., Corcuff, P., Carpenter, D. L., Charppell, C. R., Kleimenova, N.
1972
- **The structure of the plasmasphere on the basis of indirect measurements.** *The Upper Atmosphere: Part IV of Solar-Terrestrial Physics/1970*
Inan, U., Helliwell, R. A.
1972
- **VLF/ELF Radiation Patterns of Arbitrarily Oriented Electric and Magnetic Dipoles in a Cold Lossless Multicomponent Magnetoplasma** *Journal of Geophysical Research*
Inan, U., Wang, T. N., Bell, T. F.
1972
- **The formation by electric fields of field-aligned irregularities in the magnetosphere** *Radio Science*
Inan, U., Park, C. G., Helliwell, R. A.
1971
- **Vertical Motions of the Midlatitude F2 Layer during Magnetospheric Substorms** *Journal of Geophysical Research*
Inan, U., Park, C. G., Meng, C. I.
1971
- **Pulsation Phenomena Observed in Long-Duration VLF Whistler-Mode Signals** *Journal of Geophysical Research*
Inan, U., Bell, T. F., Helliwell, R. A.
1971
- **Study of Magnetospheric Field Oriented Irregularities—the Mode Theory of Bell-Shaped Ducts** *Radio Science*
Inan, U., Scarabucci, R. R., Smith, L.
1971
- **Ogo 2 and 4 VLF Observations of the Asymmetric Plasmopause near the Time of SAR Arc Events** *Journal of Geophysical Research*
Inan, U., Carpenter, D. L.
1971
- **Very-low-frequency magnetospheric research in the Antarctic** *Res. in the Antarctic*

-
- Inan, U., Helliwell, R. A.
1971
- **Westward electric fields as the cause of nighttime enhancements in electron concentrations in midlatitude F region.** *Journal of Geophysical Research*
Inan, U., Park, C. G.
1971
 - **Position of the Plasmapause during a Stormtime Increase in Trapped Energetic ($E \geq 280$ keV) Electrons** *Journal of Geophysical Research*
Inan, U., Carpenter, D. L., Park, C. G., Arens, F., Williams, D. J.
1971
 - **Radiation resistance of a small filamentary loop antenna in a cold multicomponent magnetoplasma** *IEEE Transactions on Antennas and Propagation*
Inan, U., Bell, T. F., Wang, T.
1971
 - **Correlation between Convection Electric Fields in the Nightside Magnetosphere and Several Wave and Particle Phenomena during Two Isolated Substorms** *Journal of Geophysical Research*
Inan, U., Carpenter, D. L., Fraser-Smith, C., Unwin, S., Hones Jr., E. W., Heacock, R. R.
1971
 - **Electron Precipitation Associated with Discrete Very-Low-Frequency Emissions** *Journal of Geophysical Research*
Inan, U., Rosenberg, T. J., Helliwell, R. A., Katsufurakis, P.
1971
 - **On VLF radiation resistance of an electric dipole in a cold magnetoplasma** *Radio Science*
Inan, U., Wang, T. N., Bell, T. F.
1970
 - **Low-frequency noise observed in the distant magnetosphere with OGO 1.** *Journal of Geophysical Research*
Inan, U., Dunckel, N., Ficklin, B., Rorden, L., Helliwell, R. A.
1970
 - **Whistler Evidence of the Dynamic Behavior of the Duskside Bulge in the Plasmasphere** *Journal of Geophysical Research*
Inan, U., Carpenter, D. L.
1970
 - **Whistler Duct Properties Deduced from VLF Observations Made with the Ogo 3 Satellite near the Magnetic Equator** *Journal of Geophysical Research*
Inan, U., Angerami, J. J.
1970
 - **Polarization of Proton Whistlers** *Journal of Geophysical Research*
Inan, U., Smith, R. L.
1970
 - **Satellite observations of equatorial phenomena and defocusing of VLF electromagnetic waves.** *Journal of Geophysical Research*
Inan, U., Scarabucci, R. R.
1970
 - **Whistler evidence of large-scale electron-density irregularities in the plasmasphere.** *Journal of Geophysical Research*
Inan, U., Park, C. G., Carpenter, D. L.
1970
 - **Whistler Observations of the Interchange of Ionization between the Ionosphere and the Protonosphere** *Journal of Geophysical Research*
Inan, U., Park, C. G.
1970
 - **The upper atmosphere as seen from Antarctica** *Bulletin of the Atomic Scientists*
Inan, U., Helliwell, R. A.
1970

- **Intensity of Discrete VLF Emissions** *Particles and Field in the Magnetosphere*
Inan, U., Helliwell, R. A.
1970
- **Remarks on the ground-based whistler method of studying the magnetospheric thermal plasma** *Ann. Geophys.*
Inan, U., Carpenter, D. L.
1970
- **Banded chorus - A new type of VLF radiation observed in the magnetosphere by OGO 1 and OGO 3.** *Journal of Geophysical Research*
Inan, U., Burtis, W. J., Helliwell, R. A.
1969
- **Radiation resistance of a short dipole immersed in a cold magnetoionic medium** *Radio Science*
Inan, U., Wang, T. N., Bell, T. F.
1969
- **Low-frequency waves in the magnetosphere.** *Reviews of Geophysics and Space Physics*
Inan, U., Helliwell, R. A.
1969
- **Unique Features of VLF Noise Triggered in the Magnetosphere by Morse-Code Dots from NAA** *Journal of Geophysical Research*
Inan, U., Lasch, S.
1969
- **An Investigation of Quasi-Periodic VLF Emissions** *Journal of Geophysical Research*
Inan, U., Kitamura, T., Jacobs, A., Watanabe, T., Flint Jr., R, B
1969
- **Nonducted Mode of VLF Propagation between Conjugate Hemispheres; Observations on OGO's 2 and 4 of the 'Walking-Trace' Whistler and of Doppler Shifts in Fixed Frequency Transmissions** *Journal of Geophysical Research*
Inan, U., Walter, F., Angerami, J. J.
1969
- **VLF Observations of Auroral Beams as Sources of a Class of Emissions** *Nature*
Inan, U., Smith, R. L.
1969
- **On VLF radiation fields along the static magnetic field from sources immersed in a magnetoplasma** *IEEE Transactions on Antennas and Propagation*
Inan, U., Wang, T. N., Bell, T. F.
1969
- **whistler measurements of the equatorial profile of magnetospheric electron density** *Progress in radio Science*
Inan, U., Carpenter, D. L.
1969: 1960-1963
- **Multi-experiment detection of the plasmopause from EOGO satellites and antarctic ground stations.** *Journal of Geophysical Research*
Inan, U., Carpenter, D. L., Park, C. G., Taylor Jr., H, Brinton, H. C.
1969
- **A Case of Artificial Triggering of VLF Magnetospheric Noise during the Drift of a Whistler Duct across Magnetic Shells** *Journal of Geophysical Research*
Inan, U., Carpenter, D. L., Stone, K., Lasch, S.
1969
- **Latitudinal Cutoff of VLF Signals in the Ionosphere** *Journal of Geophysical Research*
Inan, U., Heyborne, R. L., Smith, L., Helliwell, R. A.
1969
- **Ion Depletion in the High-Latitude Exosphere; Simultaneous OGO 2 Observations of the Light Ion Trough and the VLF Cutoff** *Journal of Geophysical Research*
Inan, U., Taylor Jr., H , A, Brinton, C., Carpenter, D. L., Bonner, F. M., Heyborne, R. L.

1969

- **Plasma Waves in Space and in the Laboratory** *Plasma Waves in Space and in the Laboratory*
Inan, U.
1969
- **Whistler-Mode Emissions on the OGO 1 Satellite** *Journal of Geophysical Research*
Inan, U., Dunckel, N., Helliwell, R. A.
1969
- **An Effect of a Transmitter Frequency Increase on the Occurrence of VLF Noise Triggered near $L = 3$ in the Magnetosphere** *Journal of Geophysical Research*
Inan, U., Carpenter, D. L., Lasch, S.
1969
- **Unducted Whistler Evidence for a Secondary Peak in the Electron Energy Spectrum near 10 Kev** *Journal of Geophysical Research*
Inan, U., Thorne, R. M.
1968
- **Alouette 1 and 2 Observations of Abrupt Changes in Whistler Rate and of VLF Noise Variations at the Plasmapause; A Satellite-Ground Study** *Journal of Geophysical Research*
Inan, U., Carpenter, D. L., Walter, F., Barrington, E., McEwen, D. J.
1968
- **Artificial Production of VLF Hiss** *Journal of Geophysical Research*
Inan, U., Bell, T. F.
1968
- **A comment on ray tracing in an anisotropic medium** *Radio Science*
Inan, U., Smith, R. L.
1968
- **Magnetospheric Properties Deduced from OGO 1 Observations of Ducted and Nonducted Whistlers** *Journal of Geophysical Research*
Inan, U., Smith, R. L., Angerami, J. J.
1968
- **Investigation of Quasi-periodic VLF Emissions and their relation to Geomagnetic Micropulsations** *Nature*
Inan, U., Kitamura, T.
1968
- **Ion Cutoff Whistlers** *Journal of Geophysical Research*
Inan, U., Muzzio, J. L.
1968
- **Whistlers and VLF Emissions** *Physics of the Magnetosphere*
Inan, U., Helliwell, R. A.
1968
- **Ducted Whistler-Mode Propagation in the Magnetosphere: A Half-Gyrofrequency Upper Intensity Cutoff and Some Associated Wave Growth Phenomena** *Journal of Geophysical Research*
Inan, U., Carpenter, D. L.
1968
- **Recent research on the magnetospheric plasmapause** *Radio Science*
Inan, U., Carpenter, D. L.
1968
- **Interpretation of Auroral Hiss Measured on OGO 2 and at Byrd Station in Terms of Incoherent Cerenkov Radiation** *Journal of Geophysical Research*
Inan, U., Jørgensen, T. S.
1968

- **Triggering of VLF Magnetospheric Noise by a Low-Power (~ 100 Watts) Transmitter** *Journal of Geophysical Research*
Inan, U., Kimura, I.
1968
- **The propagation of electromagnetic waves into anisotropic media from an external point-dipole source** *Radio Science*
Inan, U., Price, G. H.
1967
- **A Theory of Discrete VLF Emissions from the Magnetosphere** *Journal of Geophysical Research*
Inan, U., Helliwell, R. A.
1967
- **Direct detection by a Whistler method of the magnetospheric electric field associated with a polar substorm** *Planetary and Space Science*
Inan, U., Carpenter, D. L., Stone, K.
1967
- **Relations between the Dawn Minimum in the Equatorial Radius of the Plasmapause and Dst, Kp, and Local K at Byrd Station** *Journal of Geophysical Research*
Inan, U., Carpenter, D. L.
1967
- **Lower Hybrid Resonance Noise and a New Ionospheric Duct** *Journal of Geophysical Research*
Inan, U., Smith, R. L., Kimura, I., Vigneron, J., Katsufakis, J. P.
1966
- **Midlatitude Observations of Nighttime VLF Signal-Amplitude Anomalies Associated with Magnetic Bays** *Journal of Geophysical Research*
Inan, U., Carpenter, G. B., Katsufakis, P., Kimura, I.
1966
- **Whistler Studies of the Plasmapause in the Magnetosphere, 1, Temporal Variations in the Position of the Knee and Some Evidence on Plasma Motions near the Knee** *Journal of Geophysical Research*
Inan, U., Carpenter, D. L.
1966
- **Very-low-frequency phenomena** *Antarctic Journal of U.S.*
Inan, U., Carpenter, D. L., Helliwell, R. A.
1966
- **Association between VLF Emissions and Flickering Aurora** *Journal of Geophysical Research*
Inan, U., Ungstrup, E.
1966
- **VLF noise of magnetospheric origin, Progress in Scientific Radio** *National Academy of Sciences Publ*
Inan, U., Helliwell, R. A.
1966: 1963-1966
- **Whistler Studies of the Plasmapause in the Magnetosphere, 2, Electron Density and Total Tube Electron Content near the Knee in Magnetospheric Ionization** *Journal of Geophysical Research*
Inan, U., Angerami, J. J., Carpenter, D. L.
1966
- **Effects of ions on whistler-mode raytracing** *Radio Science*
Inan, U., Kimura, I.
1966
- **Ion Cyclotron Whistlers** *Journal of Geophysical Research*
Inan, U., Gurnett, D. L., Shawhan, D., Brice, N. M., Smith, R. L.
1965
- **Generation of VLF radio noise in the ionosphere by energetic particle streams** *Space Research V, North Holland Publ. Co., Amsterdam*

-
- Inan, U., Helliwell, R. A.
1965
- **An anisotropic electron velocity distribution for the cyclotron absorption of whistlers and VLF emissions** *Radio Science*
Inan, U., Guthart, H.
1965
 - **Nose whistler dispersion as a measure of magnetosphere electron temperature** *Radio Science*
Inan, U., Guthart, H.
1965
 - **Lower Hybrid Resonance Emissions** *Journal of Geophysical Research*
Inan, U., Brice, N. M., Smith, L.
1965
 - **Electron density and path latitude determination from v.l.f. emissions** *Journal of Atmospheric and Terrestrial Physics*
Inan, U., Brice, N. M.
1965
 - **A Dispersion Anomaly in Whistlers Received on Alouette 1** *Journal of Geophysical Research*
Inan, U., Carpenter, D. L., Dunkel, N.
1965
 - **An Interpretation of Transverse Whistlers** *Journal of Geophysical Research*
Inan, U., Kimura, I., Smith, L., Brice, N. M.
1965
 - **Rept. of the Chairman of Commission IV (Radio Noise of Terrestrial Origin)** *Progress in Radio Science*
Inan, U., Helliwell, R. A.
1965: 1960-63
 - **Daytime Whistler-Mode Attenuation through the Lower Ionosphere at 15.5 Kc as Measured on Explorer VI during Launch Trajectory** *NASA Special Publication*
Inan, U., Mlodnosky, R. F., Helliwell, R. A., Rorden, H.
1965
 - **Multiphase periodic very-low-frequency emissions** *Radio Science*
Inan, U., Brice, N. M.
1965
 - **Studies of Planetary Atmospheres, 1, The Distribution of Electrons and Ions in the Earth's Exosphere** *Journal of Geophysical Research*
Inan, U., Angerami, J. J., Thomas, O.
1964
 - **Recordings from Satellite Alouette I: Triggered Very-low-frequency Emissions** *Nature*
Inan, U., Brice, N. M., Smith, L.
1964
 - **Very Low Frequency Emission Periods and Whistler Mode Group Delays** *Journal of Geophysical Research*
Inan, U., Helliwell, R. A., Brice, N. M.
1964
 - **Natural Electromagnetic phenomena Below 30 kc/s** *Plenum press*
Inan, U., Katsufakis, J. P.
1964
 - **Maximum Duration of Discrete Very Low Frequency Emissions** *Journal of Geophysical Research*
Inan, U., Brice, N. M.
1964

- **Whistlers and VLF Emissions** *Research in Geophysics, Upper Atmosphere, and Space*
Inan, U., Helliwell, R. A.
1964; 1
- **Whistlers, U. S. National Committee Rept. on URSI XIV th General Assembly, Tokyo, Sept. 1963** *Radio Science*
Inan, U., Carpenter, D. L.
1964
- **Artificially Stimulated Very Low Frequency Radiation from the Ionosphere** *Journal of Geophysical Research*
Inan, U., Helliwell, R. A., Katsufakis, P., Trimpi, L., Brice, N. M.
1964
- **Propagation in Multicomponent Plasmas** *Journal of Geophysical Research*
Inan, U., Smith, R. L., Brice, N. M.
1964
- **Langmuir Probe Response to Periodic Waveforms** *Journal of Geophysical Research*
Inan, U., Crawford, F. W., Mlodnosky, F.
1964
- **Whistler Measurements of Electron Density in the Magnetosphere** *Reviews of Geophysics*
Inan, U., Carpenter, D. L., Smith, L.
1964
- **Recordings from Satellite Alouette I: A Very-low-frequency Plasma Resonance** *Nature*
Inan, U., Brice, N. M., Smith, L.
1964
- **A Qualitative Explanation of the Diurnal Variation of Chorus** *Journal of Geophysical Research*
Inan, U., Brice, N. M.
1964
- **Fundamentals of Very Low Frequency Emission Generation Mechanisms** *Journal of Geophysical Research*
Inan, U., Brice, N. M.
1964
- **Electron Density at the Alouette Orbit** *Journal of Geophysical Research*
Inan, U., Thomas, J. O., Sader, Y.
1964
- **A New Very Low Frequency Phenomenon: Whistlers Trapped below the Protonosphere** *Journal of Geophysical Research*
Inan, U., Carpenter, D. L., Dunkel, N., Walkup, F.
1964
- **An Explanation of Subprotonospheric Whistlers** *Journal of Geophysical Research*
Inan, U., Smith, R. L.
1964
- **Time Reversal of the Geocyclotron Mechanism** *Journal of Geophysical Research*
Inan, U., Bell, T. F.
1964
- **Plasma Instability in the Whistler Mode Caused by a Gyrating Electron Stream** *Physical Review*
Inan, U., Bell, T. F., Buneman, O.
1964
- **An Ion Gyrofrequency Phenomenon observed in Satellites** *Nature*
Inan, U., Smith, R. L., Brice, N. M., Katsufakis, P.
1964

- **Coupling between the ionosphere and the earth-ionosphere waveguide at very low frequencies** *The Ionosphere*
Inan, U., Helliwell, R. A.
1963
- **Whistler Measurements of Electron Density and Magnetic Field Strength in the Remote Magnetosphere** *Journal of Geophysical Research*
Inan, U., Carpenter, D. L.
1963
- **Whistlers Excited by Nuclear Explosions** *Journal of Geophysical Research*
Inan, U., Helliwell, R. A., Carpenter, D. L.
1963
- **An Interpretation of LOFTI-I very-low-frequency observations** *Pergamon Press*
Inan, U., Rorden, L. H., Helliwell, R. A., Smith, R. L.
1963: 75-81
- **Comments on the Magnetoinic theory for a drifting plasma** *IEEE Transactions on Antennas and Propagation*
Inan, U., Bell, T. F., Smith, L., Brice, N. M.
1963
- **Comments on a paper by H. Unz, "On the origin of []very low frequency emissions"** *Journal of Atmospheric and Terrestrial Physics*
Inan, U., Brice, N. M., Smith, L.
1963
- **Whistler Evidence of a 'Knee' in the Magnetospheric Ionization Density Profile** *Journal of Geophysical Research*
Inan, U., Carpenter, D. L.
1963
- **Use of 'local Mean Auroral Time' for Very-Low-Frequency Emissions** *Nature*
Inan, U., Brice, N. M., Ungstrut, E.
1963
- **An Explanation of Triggered Very-Low-Frequency Emissions** *Journal of Geophysical Research*
Inan, U., Brice, N. M.
1963
- **Whistler-Triggered Periodic Very-Low-Frequency Emissions** *Journal of Geophysical Research*
Inan, U., Helliwell, R. A.
1963
- **On a Remarkable Correlation between Whistler-Mode Propagation and High-Frequency Northscatter** *Journal of Geophysical Research*
Inan, U., Carpenter, G. B., Colin, L.
1963
- **The v.l.f. admittance of a dipole in the lower ionosphere** *The Ionosphere*
Inan, U., Mlodnosky, R. F., Garriott, K.
1963
- **Whistler and Other Very-Low-Frequency Phenomena Associated with the High-Altitude Nuclear Explosion on July 9, 1962** *Journal of Geophysical Research*
Inan, U., Allcock, G. M., Branigan, K., Mountjoy, C., Helliwell, R. A.
1963
- **Discussion of Paper by R. L. Dowden, 'Doppler-Shifted Cyclotron Radiation from Electrons: A Theory of Very Low Frequency Emissions from the Exosphere'** *Journal of Geophysical Research*
Inan, U., Brice, N. M.
1962
- **Electron-Density Variations in the Magnetosphere Deduced from Whistler Data** *Journal of Geophysical Research*
Inan, U., Carpenter, D. L.

1962

- **Very-Low-Frequency Discrete Emissions received at Conjugate Points** *Nature*
Inan, U., Dowden, R. L.
1962
- **New Experimental Evidence of the Effect of Magnetic Storms on the Magnetosphere** *Journal of Geophysical Research*
Inan, U., Carpenter, D. L.
1962
- **Whistler-west results from the IGY-IGC-59 synoptic program** *Trans. AGU*
Inan, U., Helliwell, R. A., Carpenter, D. L.
1962
- **Non-thermal noise measurements near planets** *Int'l Astrophys. Symp. on the physics of Planets*
Inan, U., Mlodnosky, R. F., Carpenter, D. L., Helliwell, R. A.
1962
- **Graphic Data on the Earth's Main Magnetic Field in Space** *Journal of Geophysical Research*
Inan, U., Mlodnosky, R. F., Helliwell, R. A.
1962
- **Properties of the Outer Ionosphere Deduced from Nose Whistlers** *Journal of Geophysical Research*
Inan, U., Smith, R. L.
1961
- **Computation of whistler ray paths** *J. Res. NBS. D. Radio Prop.*
Inan, U., Yabroff, I. W.
1961
- **Stanford-Pacific Naval Laboratory Conjugate Point Experiment** *Nature*
Inan, U., Lokken, J. E., Shand, A., Wright, S.
1961
- **Propagation Characteristics of Whistlers Trapped in Field-Aligned Columns of Enhanced Ionization** *Journal of Geophysical Research*
Inan, U., Smith, R. L.
1961
- **The International Geophysical Month** *Science*
Inan, U., Helliwell, R. A., Martin, H.
1961
- **Extension of Nose Whistler Analysis** *Journal of Geophysical Research*
Inan, U., Smith, R. L., Carpenter, D. L.
1961
- **Electron Densities in the Outer Ionosphere Deduced from Nose Whistlers** *Journal of Geophysical Research*
Inan, U., Smith, R. L.
1961
- **Exospheric electron density variations deduced from whistlers** *Symposium d'Aéronomie Communications*
Inan, U., Helliwell, R. A.
1961
- **Summary of research on whistlers and related phenomena** *J. Res. NBS*
Inan, U., Helliwell, R. A.
1960
- **A Theory of Trapping of Whistlers in Field-Aligned Columns of Enhanced Ionization** *Journal of Geophysical Research*
Inan, U., Smith, R. L., Helliwell, R. A., Yabroff, W.

1960

- **Association between Auroræ and Very Low-Frequency Hiss Observed at Byrd Station, Antarctica** *Nature*
Inan, U., Martin, L. H., Helliwell, R. A.
1960
- **A New Mechanism for Accelerating Electrons in the Outer Ionosphere** *Journal of Geophysical Research*
Inan, U., Helliwell, R. A., Bell, T. F.
1960
- **Traveling Wave Amplification of Whistlers** *Journal of Geophysical Research*
Inan, U., Brice, N. M.
1960
- **Guiding of whistlers in a homogeneous medium** *J. Res. NBS-D, Radio Propagation*
Inan, U., Smith, R. L.
1960
- **Observations of `Whistlers' and `Chorus' at the South Pole** *Nature*
Inan, U., Martin, L. H.
1960
- **Electron Densities to 5 Earth Radii Deduced from Nose Whistlers** *Journal of Geophysical Research*
Inan, U., Smith, R. L., Helliwell, R. A.
1960