

Schriftenverzeichnis /publication list

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Prof. Dr. Dirk Offermann

- 1.) Mauersberger, K., D. Mueller, D. Offermann, and U. von Zahn; *Neutral constituents of the upper atmosphere in the altitude range of 110 to 160 km above Sardinia*; Space Res., VII, 1150-1158, 1967.
- 2.) Gross, J., D. Offermann, and U. von Zahn; *Neutral particle densities in the lower thermosphere as measured by mass spectrometers above Fort Churchill and Sardinia*; Space Res., VIII, 920-925, 1968.
- 3.) Mauersberger, K., D. Mueller, D. Offermann, and U. von Zahn; *A mass spectrometric determination of the neutral constituents in the lower thermosphere above Sardinia*; J. Geophys. Res., 73, 1071- 076, 1968.
- 4.) Offermann, D., U. von Zahn, W. Bitterberg, and K. Bruchhausen; *Neutral particle density ratios in the thermosphere as derived from mass spectrometric measurements above Sardinia*; Space Res., IX, 512-513, 1969.
- 5.) Bitterberg, W., K. Bruchhausen, D. Offermann, and U. von Zahn; *Lower thermosphere composition and density above Sardinia in October 1967*; J. Geophys. Res., 75, 5528- 5534, 1970.
- 6.) Offermann, D. and H. Trinks; *A rocket borne mass spectrometer with helium cooled ion source*; Rev. Sci. Instr., 42, 1836-1843, 1971.
- 7.) Offermann, D. and U. von Zahn; *Atomic Oxygen and Carbon Dioxide in the Lower Thermosphere*; J. Geophys. Res., 76, 2520-2522, 1971.
- 8.) Offermann, D.; *On the atomic oxygen measurements by rocketborne mass spectrometers*; J. Geophys. Res., 77, 6284-6286, 1972.

- 9.) Offermann, D. and K. U. Grossmann; *Neutral composition measurements in the lower thermosphere by means of a mass spectrometer with helium cooled ion source*; Space Res. XII, 665-673, 1972.
- 10.) Offermann, D., K. Pelka, and U. von Zahn; *Mass spectrometric measurements of minor constituents in the lower thermosphere*; Int. J. Mass Spectrom. Ion Phys., 8, 391-401, 1972.
- 11.) Offermann, D. and A. Drescher; *Atomic oxygen densities in the lower thermosphere as derived from in-situ 5577 Å Nightglow and mass spectrometer measurements*; J. Geophys. Res., 78, 6690-6700, 1973.
- 12.) Offermann, D. and K.U. Grossmann; *Thermospheric density and composition as determined by a mass spectrometer with cryo ion source*; J. Geophys. Res., 78, 8296- 8304, 1973.
- 13.) Offermann, D. and T.G. Scholz; *Functional tests of a cryo-cooled mass spectrometer ion source in a supersonic wind tunnel*; Rev. Sci. Instr. 44, 1573-1577, 1973.
- 14.) Offermann, D. and H. Tatarczyk; *A cryo-cooled mass spectrometer ion source for atmospheric composition measurements at supersonic rocket velocities*; Rev. Sci. Instr. 44, 1569-1572, 1973.
- 15.) Offermann, D.; *Composition variations in the lower thermosphere*; J. Geophys. Res., 79, 4281-4293, 1974.
- 16.) Scholz, T.G. and D. Offermann; *Measurement of neutral atmospheric composition at 85 - 115 km by mass spectrometer with cryo ion source*; J. Geophys. Res., 79, 307-310, 1974.
- 17.) Offermann, D. and A. Drescher; *Reply to: Comment on "atomic oxygen densities in the lower thermosphere as derived from In Situ 5577-Å Night Airglow and mass spectrometer measurements" by T.M. Donahue and B. Guenther*; J. Geophys. Res., 80, 221-222, 1975.

- 18.) Friedrich, V.H., D. Offermann, H. Trinks, and U. v. Zahn; *The cryo mass spectrometer in the Winter Anomaly Campaign*; J. Geophys., 44, 139-146, 1977.
- 19.) Offermann, D.; *A study of the D-region winter anomaly in Western Europe*; 1975/76, J. Geophys., 44, 1-13, 1977.
- 20.) Offermann, D.; *Some results from the European Winter Anomaly Campaign 1975/76, in: B. Grandal and J.A. Holtet; Dynamical and chemical coupling between the neutral and ionized atmosphere*; Reidel Publ. Comp., Dordrecht, The Netherlands, 235-252, 1977.
- 21.) Grossmann, K.U. and D. Offermann; *Spectrometric measurement of the atomic oxygen 63 μ m line intensities between 80 km and 180 km*; Space Research XVIII, 179-182, 1978.
- 22.) Grossmann, K.U. and D. Offermann; *63 μ m atomic oxygen emission as a cooling mechanism in thermosphere and ionosphere*; Nature 276, 594, 1978.
- 23.) Offermann, D. and K.U. Grossmann; *Spectrometric measurements of atomic oxygen 63 μ m emission in the thermosphere*; Geophys. Res. Let., 5, 387-390, 1978.
- 24.) Trinks, H., D. Offermann, U. von Zahn, and C. Steinhauer; *Neutral composition measurements between 90 and 220 km altitude by rocket borne mass spectrometer*; J. Geophys. Res., 83, 2169, 1978.
- 25.) Becker, M., J. Baete, D. G. Papanikas, V. H. Friedrich, D. Offermann, A. Loidl, H. Schwentek, and E. V. Thrane; *Density and temperature profiles measured in the mesosphere and lower thermosphere during winter anomaly conditions*; J. Atmos. Terr. Phys., 41, 1075, 1979
- 26.) Krankowsky, D., F. Arnold, V. H. Friedrich, and D. Offermann; *Neutral composition measurements during the Western European Winter Anomaly Campaign 1975/76*; J. Atmos. Terr. Phys., 41, 1085, 1979.

- 27.) Offermann, D.; *Recent advances in the study of D-region winter anomaly*; J. Atmos. Terr. Phys., 41, 735, 1979.
- 28.) Offermann, D.; *An integrated GBR campaign for the study of the D-region winter anomaly in Western Europe 1975/76*; J. Atmos. Terr. Phys., 41, 1047, 1979.
- 29.) Offermann, D., P. Curtis, J. M Cisneros, J. Satrustegui, H. Lauche, G. Rose, and K. Petzoldt; *Atmospheric temperature structure during the Western European Winter Anomaly Campaign 1975/76*; J. Atmos. Terr. Phys., 41, 1051, 1979.
- 30.) Offermann, D.; *A winter anomaly campaign in Western Europe*; Phil. Trans. R. Soc. Lond., A 296, 261-268, 1980.
- 31.) Offermann, D., H.G. Brueckelmann, K.M. Torkar, and H. Widdel; *Mesospheric structure and the D-region winter anomaly*; Adv. Space Res., 1, 123-126, 1981.
- 32.) Offermann, D., V. Friedrich, P. Ross, and U. von Zahn; *Neutral gas composition measurements between 80 and 120 km*; Planet. Space Sci., 29, 747, 1981.
- 33.) Offermann, D., H.G.K. Brueckelmann, J.J. Barnett, K. Labitzke, K.M. Torkar, and H.U. Widdel; *A scale analysis of the D-region winter anomaly*; J. Geophys. Res., 87, 8286-8306, 1982.
- 34.) Grossmann, K.U., P. Barthol, W. Frings, R. Hennig, and D. Offermann; *A new spectrometric measurement of atmospheric 63 μ m emission*; Adv. Space Res., 2, 111, 1983.
- 35.) Lemke, D., M. Grewing, D. Offermann, S. Drapatz, and G. Klipping; "GIRL - The German infrared laboratory for Spacelab"; Adv. Space Res., 2, 123, 1983.
- 36.) Offermann, D.; *The MAP/Globus Campaign 1983, in: Sixth ESA Symposium on European rocket and balloon programmes and related research*; ESA SP-183, 1983.

- 37.) Offermann, D., R. Gerndt, G. Lange, and H. Trinks; *Variations of mesopause temperatures in Europe*; Adv. Space Res., 3, 21-23, 1983.
- 38.) Schmidlin, F.J., M. Carlson, D. Offermann, C. R. Philbrick, D. Rees, and H. U. Widdel; *Wind structure and small-scale wind variability in the stratosphere and mesosphere during the November 1980 Energy Budget Campaign*; Adv. Space Res., 2, 125, 1983.
- 39.) Schmidlin, F. J., C. R. Philbrick, K. U. Grossmann, R. Hennig, G. Lange, D. Krankowsky, D. Offermann, F. J. Schmidlin, and U. von Zahn; *Vertical density and temperature structure over Northern Europe*; Adv. Space Res., 2, 121, 1983.
- 40.) Philbrick, C.R., J. Barnett, R. Gerndt, D. Offermann, W.R. Pendleton, jr., P. Schlyter, J.F. Schmidlin, and G. Witt; *Temperature measurements during the CAMP program*; Adv. Space Res., 4, 153-156, 1984.
- 41.) Baker, D.J., A. J. Steed, G. A. Ware, D. Offermann, D., G. Lange, and H. Lauche; *Ground-based atmospheric infrared and visible emission measurements*; J. Atmos. Terr. Phys., 47, 133, 1985.
- 42.) Lemke, D., M. Grewing, P. Preussner, W. Martin, D. Offermann, G. Lange, S. Drapatz, R. Katterloher, H. Denner, G. Klipping, A. F. Dahl, and K. Proetel; *"The German infrared laboratory GIRL - A progress report"*; Adv. Space Res., 5, 11, 1985.
- 43.) Grossmann, K.U., W. G. Frings, D. Offermann, L. André, E. Kopp, and D. Krankowsky; *Concentrations of H₂O and NO in the mesosphere and lower thermosphere at high latitudes*; J. Atmos. Terr. Phys. 47, 291, 1985.
- 44.) Offermann, D.; *The Energy Budget Campaign 1980: introductory review*; J. Atmos. Terr. Phys., 47, 1, 1985.

- 45.) Philbrick, C.R., F. J. Schmidlin, K. U. Grossmann, G. Lange, D. Offermann, K. D. Baker, D. Krankowsky, and U.von Zahn; *Density and temperature structure over Northern Europe*; J. Atmos. Terr. Phys., 47, 159, 1985.
- 46.) Schmidlin, F.J., M. Carlson, D. Rees, D. Offermann, C. R. Philbrick, and H. U.Widdel; *Wind structure and variability in the middle atmosphere during the November 1980 Energy Budget Campaign*; J. Atmos. Terr. Phys., 47, 183, 1985.
- 47.) Brasseur, G. and D. Offermann; *Recombination of atomic oxygen near the mesopause: interpretation of rocket data*; J. Geophys. Res., 91, 10,810, 1986.
- 48.) Offermann, D.; *Ist die Atmosphäre veränderlich?*, in: *Wuppertaler Hochschulkolloquium*; Born-Verlag, 1986.
- 49.) Brueckelmann, H.G., K. U. Grossmann, and D. Offermann; *Rocket-borne measurements of atmospheric infrared emissions by spectrometric techniques*; Adv. Space Res., 7, (10)43 - (10)46, 1987.
- 50.) Grossmann, K.U., H.G. Brueckelmann, D. Offermann, P. Schwabbauer, R. Gyger, K. Kuenzi, G.K. Hartmann, C.A. Barth, R. Thomas, A.F. Chijov, S.P. Perov, V.A. Yushdov, P. Gloede, and K.H. Grasnik; *Middle atmosphere abundances of water vapor and ozone during MAP/WINE*; J. Atmos. Terr. Phys., 49, 827-841, 1987.
- 51.) Grossmann, K.U. and D. Offermann; *The CRISTA Experiment on ASTROSPAS*; in: Proc 8th ESA Symp. Europ. Rocket and Balloon Progr., ESA SP-270, 411-415, 1987.
- 52.) Offermann, D.; *The MAP/Globus Campaign 1983: introduction*; Planet. Space Sci., 35, 515- 524, 1987.
- 53.) Offermann, D.; *Some results from the MAP/Globus 1983 campaign*; Ann. Geophys., 5a, 187-196, 1987.

- 54.) Offermann, D., R. Gerndt, and R. Kuechler; *Middle atmosphere temperature measurements as compared to atmospheric models*; Adv. Space Res., 7, (10)97-(10)104, 1987.
- 55.) Offermann, D., R. Gerndt, R. Kuechler, K. Baker, W. R. Pendleton, W. Meyer, U. von Zahn, C. R. Philbrick, and F. J. Schmidlin; *Mean state and longterm variations of temperature in the winter middle atmosphere above northern Scandinavia*; J. Atmos. Terr. Phys., 49, 655-674, 1987.
- 56.) Offermann, D., H. Rippel, P. Aimedieu, W.A. Matthews, G. Megie, E. Arijs, J. Ingels, D. Nevejans, F. Arnold, H. Schlager, W. Attmannspacher, J. M. Cisneros, A.W. Dawkins, D. DeMuer, P. Fabian, F. Karcher, G. Froment, U. Langematz, R. Reiter, K.W. Rothe, U. Schmidt, and R.J. Thomas; *Disturbances of stratospheric trace gas mixing ratios during the MAP/Globus 1983 campaign*; Planet. Space Sci., 35, 673-684, 1987.
- 57.) Pommereau, J.P., P. Fabian, G. Flentje, M. Helten, H.W. Patz, F. Karcher, G. Froment, G. Armand, W. A. Matthews, D. Offermann, P. Rippel, J. P. Naudet, D. Huguenin, P.C. Simon, W. Peetermans, P. Vandeneede, R. Zander, and G. Roland; *Intercomparison of stratospheric NO₂ and NO₃ measurements during MAP/Globus 1983*; Planet. Space Sci., 35, 615-629, 1987.
- 58.) Rippel, H., L. Hilbert, M. Jarisch, D. Kampf, D. Offermann, and R. Schneider; *Helium-cooled balloon-borne infrared experiment for measurements of stratospheric trace gas emissions*; Appl. Optics, 26, 3097-3102, 1987.
- 59.) Simon, P.C., W. Peetermans, E. Plateau, P. Rigaud, J. P. Naudet, D. Huguenin, D. Offermann, and H. Rippel; *Remote sensing ozone measurements from stratospheric balloon during MAP/Globus Campaign 1983*; Planet. Space Sci., 35, 595-601, 1987.
- 60.) Offermann, D.; *The DYANA Campaign 1990*; Proc. 9. ESA/PAC Symp. Lahnstein, ESA SP-291, 259-267, Paris, 1989.

- 61.) Barthol, P., K.U. Grossmann, and D. Offermann; *Telescope design of the CRISTA SPAS experiment aboard the Space Shuttle*; SPIE, 1331, 54-63, 1990.
- 62.) Offermann, D. and R. Gerndt; *Upper mesosphere temperatures from OH* emissions*, in: *COSPAR International Reference Atmosphere: 1986, Part II*, eds. D. Rees, J.J. Barnett, and K. Labitzke; Adv. Space Res. Vol. 10. No. 12. pp.217-221, 1990.
- 63.) Trant, R., K.U. Grossmann, M. Langermann, and D. Offermann; *Cryogenics of the CRISTA SPAS Experiment aboard the Space Shuttle*; Cryogenics 30, 475-480, 1990.
- 64.) Grossmann, K.U. and D. Offermann; *Cryogenic Infrared Spectrometers and Telescopes for the Atmosphere - CRISTA*; Opt. Soc. of America, Technical Digest Series, Vol. I8, 1991.
- 65.) Grossmann, K.U., R. Trant und D. Offermann; *CRISTA: Ein Helium-gekühltes Infrarot Teleskop für die Erdatmosphäre*; Deutscher Kälte- und Klimatechnischer Verein, Stuttgart, Tagungsbericht, 18, 1-8, 1991.
- 66.) Offermann, D.; *DYANA project survey*; Proc. 10. ESA/PAC Symp. Mandelieu-Cannes, ESA SP-317, 369-386, Paris, 1991.
- 67.) Offermann, D. und H. H. Graef; *Messungen der OH* Temperatur*; Promet 22, 125-128, 1992.
- 68.) Trant, R., C. Neusser, D. Offermann, and F. Kesting; *Development of cryogenic rupture discs for the space borne CRISTA project*; Adv. Cryogen. Eng. 37, 1419, 1992.
- 69.) Offermann, D.; *CRISTA: A space shuttle experiment for middle atmosphere small scale structures*, in: E.V. Thrane, ed., *Coupling Processes in the Lower and Middle Atmosphere*; Kluwer Academ. Publ., Dordrecht, The Netherlands, 389-401, 1993.

- 70.) Barthol, P., K.U. Grossmann, and D. Offermann; *Telescope design of the CRISTA SPAS experiment aboard the Space Shuttle*; SPIE, 1331, 54-63, 1994.
- 71.) Bittner, M., D. Offermann et al. (16 co-authors); *Long period/large scale oscillations of temperature during the DYANA Campaign*; J. Atmos. Terr. Phys., 56, 1675-1700, 1994.
- 72.) Bugaeva, I.V., A.I. Boutko, G.R. Zakharov, G.A. Kokin, Yu.P. Koshelkov, S.P. Perov, D.A. Tarasenko, G.F. Toulinov, D. Offermann, M. Bittner, U. von Zahn, M.L. Chanin, A. Hauchecorne, I. Soule, B.H. Subbaraya, M. Gil-Ojeda, B.A. de la Morena, F.J. Schmidlin, K.I. Oyama, H. Kanzawa; *Basic features of large-scale processes in the middle atmosphere during DYANA*; J. Atmos. Terr. Phys., 56, 1659-1674, 1994.
- 73.) Grossmann, K.U., D. Offermann, P. Barthol, and R. Trant; *The CRISTA Project*; SPIE, 2209, 50-56, 1994.
- 74.) Jarisch, M. and D. Offermann; *Measurements of stratospheric trace gases by a balloon-borne infrared spectrometer in France*; Adv. Space Res., 14 (9), 185-188, 1994.
- 75.) Luebken, F.-J., W. Hillert, G. Lehmacher, U. von Zahn, M. Bittner, D. Offermann, F.J. Schmidlin, A. Hauchecorne, M. Mourier and P. Czechowsky; *Intercomparison of density and temperature profiles obtained by lidar, ionization gauges, falling spheres, datasondes and radiosondes during the DYANA Campaign*; J. Atmos. Terr. Phys., 56, 1969-1984, 1994.
- 76.) Offermann, D.; *The DYANA Campaign: survey*; J. Atmos. Terr. Phys., 56, 1639-1657, 1994.
- 77.) Offermann, D., Brasseur, G. and Riese, M.; *Recombination energy of atomic oxygen and related species at the mesopause*; Adv. Space Res., 14 (9)177 - (9)180, 1994.
- 78.) Riese, M., Offermann, D., and G. Brasseur; *Recombination energy of atomic oxygen and related species at the mesopause*; Adv. Space Res., 14 (9)177 - (9)180, 1994.

- 79.) Riese, M., D. Offermann and G. Brasseur; *Energy released by recombination of atomic oxygen and related species at mesopause heights*; J. Geophys. Res., 99, 14,585-14,593, 1994.
- 80.) Scheer, J., E.R. Reisin, J.P. Espy, M. Bittner, H.-H. Graef, D. Offermann, P.P.Ammosov, V.M. Ignatyev; *Large-scale structures in hydroxyl rotational temperatures during DYANA*; J. Atmos. Terr. Phys., 56, 1701-1715, 1994.
- 81.) Offermann, D. and R.R. Conway; *Mission studies the composition of earth's middle atmosphere*; EOS, Trans. AGU, Vol.76, No.34, 337-338 / 342, 1995.
- 82.) Wu, Y. F., H. Widdel, and D. Offermann; *First observation of mesospheric wind shear as high as $330 \frac{m}{s km}$* ; Ann. Geophys. 13, 954-958, 1995.
- 83.) Offermann, D. und K.U. Grossmann; *Infrarot-Messungen in der oberen Atmosphäre*; Phys. Bl. 52, 133-136, 1996.
- 84.) Spang, R., D. Offermann, and M. Bittner; *Comparison of the CIRA 1990 planetary wave model to rocket temperature measurements*; Adv. Space Res., 18, (9/10), 347-350, 1996.
- 85.) Bittner, M., D. Offermann, P. Preusse, M. Riese, H. Claude, and F.J. Schmidlin; *CRISTA ozone measurements/validation*; Adv. Space Res., 19, 567-570, 1997.
- 86.) Bittner, M., D. Offermann, and H.U. Widdel; *Nonlinear resonant interaction of atmospheric gravity waves derived from Chaff wind data: A Case Study*; Proc.13th ESA Symp. Europ. Rockets, Öland, ESA SP-397, 489-494, 1997.
- 87.) Jarisch, M., D. Offermann, M. Riese, and D.J. Wuebbles; *Measurements of stratospheric trace gases by a balloon-borne infrared spectrometer in France*; J. Atmos.Terr. Phys., 59, 1747-1755, 1997.

- 88.) Offermann, D. and M. Riese; *The CRyogenic Infrared Spectrometers and Telescopes for the Atmosphere (CRISTA) project: first results*; SPARC Newsletter, 8, 28, 1997.
- 89.) Preusse, P., M. Riese, J. Oberheide, M. Bittner, K.U. Grossmann, and D. Offermann; *Evidence for a zonally trapped diurnal tide in CRISTA temperatures*; Adv. Space Res., 19, 579-582, 1997.
- 90.) Riese, M., P. Preusse, R. Spang, M. Ern, M. Jarisch, K.U. Grossmann, and D. Offermann; *Measurements of trace gases by the CRyogenic Infrared Spectrometers and Telescopes for the Atmosphere (CRISTA) experiment*; Adv. Space Res., 19, 563-566, 1997.
- 91.) Spang, R., M. Riese, and D. Offermann; *CFC 11 measurements by CRISTA*; Adv. Space Res., 19, 575-578, 1997.
- 92.) Summers, M.E., R.R. Conway, D.E. Siskind, M.H. Stevens, D. Offermann, M. Riese, P. Preusse, D.F. Strobel, and J.M. Russell III; *Implications of satellite OH observations for middle atmospheric H₂O and ozone*; Science 277, 1967-1970, 1997.
- 93.) Bittner, M., D. Offermann, H.-H. Graef, and M. Donner; *Wavelet analysis of upper mesosphere temperature variations*; Adv. Space Res., Vol. 21, 1445-1448, 1998.
- 94.) Grossmann, K.U. and D. Offermann; *The CRISTA-2 mission*; SPARC Newsletter, 11, 24-29, 1998.
- 95.) Grossmann, K.U. and D. Offermann; *Preliminary results of the CRISTA-2 experiment*; Proc. SPIE Conf., San Diego, CA, SPIE 3437, 176-184, 1998.
- 96.) Bacmeister, J.T., V. Kuell, D. Offermann, M. Riese, and J.W. Elkins; *Intercomparison of satellite and aircraft observations of long-lived tracers using trajectory mapping*; J.Geophys.Res., 104, 16,379-16,390, 1999.
- 97.) Grossmann, K.U. und D. Offermann; *Abschlussbericht, 2. Flug von CRISTA*; University of Wuppertal, Wuppertal, May 1999 (in German).

- 98.) Kouker, W., D. Offermann, V. Kuell, R. Ruhnke, T. Reddmann, and A. Franzen;
Streamers observed by the CRISTA Experiment and the KASIMA Model;
J.Geophys.Res., 104, 16,405-16,418, 1999.
- 99.) Offermann, D.; "CRISTA ist eine Goldgrube"; Berg. Blätter 22/1, 20-21, 1999.
- 100.) Offermann, D.; *CRISTA's kleine fleißige Brüder*; Berg. Blätter 12 / 12+13, S. 21-22,
1999.
- 101.) Offermann, D.; "CRISTA war nicht allein im All"; Berg. Blätter, 22/5, 21, 1999.
- 102.) Offermann, D., K.U. Grossmann, P. Barthol, P. Knieling, M. Riese, and R. Trant;
*The CRyogenic Infrared Spectrometers and Telescopes for the Atmosphere
(CRISTA) Experiment and middle atmosphere variability*; J.Geophys.Res.,
104, 16,311-16,325, 1999.
- 103.) Offermann, D. and R. Spang; *Detection of stratospheric clouds in Antarctica and in
the tropics by CRISTA*; Proc. MEPS, Bad Tölz, European Communities,
EUR 18912en, 185-188, 1999.
- 104.) Preusse, P., B. Schaefer, J.T. Bacmeister, and D. Offermann; *Evidence for gravity
waves in CRISTA temperatures*; Adv.Space Res., 24/11, 1601-1604, 1999.
- 105.) Preusse, P., B. Schaefer, D. Offermann, and S. Eckermann; *Mountain lee waves over
South America - a case study on the sensitivity to spatial short scales*;
Proc.MEPS, Bad Tölz, European Communities, EUR 18912en, 217-222, 1999.
- 106.) Riese, M., R. Spang, J. Oberheide, G. Lehmacher, P. Preusse, and D. Offermann;
*Some results of the CRyogenic Infrared Spectrometers and Telescopes for the
Atmosphere (CRISTA) experiment*; Proc.14 ESA Symp., Potsdam, ESA SP-437,
317-323, 1999.

- 107.) Riese, M., R. Spang, P. Preusse, M. Ern, M. Jarisch, D. Offermann, and K.U. Grossmann; *CRyogenic Infrared Spectrometers and Telescopes for the Atmosphere (CRISTA) data processing and atmospheric temperature and trace gas retrieval*; J. Geophys.Res., 104, 16,349-16,367, 1999.
- 108.) Riese, M., X. Tie, G. Brasseur, and D. Offermann; *Three-dimensional simulation of stratospheric trace gas distributions measured by CRISTA*; J. Geophys. Res., 104, 16,419-16,435, 1999.
- 109.) Ward, W.E., J. Oberheide, M. Riese, P. Preusse, and D. Offermann; *Tidal signatures in temperature data from the CRISTA-1 mission*; J.Geophys.Res., 104, 16,391-16,403, 1999.
- 110.) Bittner, M., D. Offermann, and H.H. Graef; *Mesopause temperature variability above a mid latitude station in Europe*; J.Geophys.Res., 105, 2045-2058, 2000.
- 111.) Conway, R.R., M.E. Summers, M.H. Stevens, J.G. Cardon, P. Preusse, and D. Offermann; *Satellite observations of upper stratospheric and mesospheric OH: The HO_x dilemma*; Geophys.Res.Lett., 27, 2613-2616, 2000.
- 112.) Lehmacher, G.A., J. Oberheide, F.J. Schmidlin, and D. Offermann; *Zero miss time and CRISTA-zero miss distance experiments for validation of CRISTA 2 temperatures*; Adv.Space Res., 26/6, 965-969, 2000.
- 113.) Oberheide, J., M.E. Hagan, W.E.Ward, M. Riese, and D. Offermann; *Modeling the diurnal tide for the CRISTA 1 time period*; J.Geophys.Res., 105, 24,917-24,929, 2000.
- 114.) Offermann, D.; *Large scale dynamics in the middle atmosphere*; in: Historien om Andoya Raketttskytefelt gjennom 40 år; Andoya Rocket Range, N-8483 Andenes, 153 - 158, 2000.

- 115.) Preusse, P., S.D. Eckermann, and D. Offermann; *Comparison of global distributions of zonal-mean gravity wave variance inferred from different satellite instruments*; Geophys.Res. Lett., 27, 3877-3880, 2000.
- 116.) Riese, M., V. Kuell, X. Tie, G. Brasseur, D. Offermann, G. Lehmacher, and A. Franzen; *Modeling of nitrogen species measured by CRISTA*; Geophys.Res.Lett., 27, 2221-2224, 2000.
- 117.) Riese, M., X. Tie, G. Brasseur, D. Offermann, and R. Spang; *Three-dimensional model simulations of CRISTA trace gas measurements*; Adv.Space Res., 26/6, 971-974, 2000.
- 118.) Ward, W.E., J. Oberheide, M. Riese, P. Preusse, and D. Offermann; *Planetary wave two signatures in CRISTA 2 ozone and temperature data*; in: Geophys. Monograph, AGU, 123, 319-325, 2000.
- 119.) Eckermann, S.D., P. Preusse, B. Schaeler, J. Oberheide, D. Offermann, J.T. Bacmeister, and D. Broutman; *Global gravity wave “weather” in the middle atmosphere: preliminary insights from the CRISTA-SPAS mission*; Proc. Sol. Space Physics Community, 13th National Congress of the Australian Institute of Physics, ANARE Research Reports, Australian Antarctic Division, Kingston, Tasmania, R.J. Morris and P.J. Wilkinson eds., 146, 11-24, 2001.
- 120.) Eidmann, G., D. Offermann, M. Jarisch, P. Preusse, S.D. Eckermann, and F.J. Schmidlin; *Horizontal temperature variability in the stratosphere: global variations inferred from CRISTA data*; Adv. Space Res., 27(10), 1641-1646, 2001.
- 121.) Eidmann, G., D. Offermann, and P. Preusse; *Fluctuation power spectra in the mid stratosphere at increased horizontal resolution*; Adv. Space Res., 27(10), 1647-1652, 2001.

- 122.) Offermann, D., M. Jarisch, B. Schaeler, G. Eidmann, M. Langfermann, J. Oberheide, T. Wiemert, M. Riese, and C. Schiller; *Trace gas densities and dynamics at and above the tropopause as derived from CRISTA data*; Proc. SPIE, Vol. 4150, 10-19, 2001.
- 123.) Preusse, P., S.D. Eckermann, J. Oberheide, M.E. Hagan, and D. Offermann; *Modulation of gravity waves by tides as seen in CRISTA temperatures*; Adv. Space Res., 27/10, 1773-1778, 2001.
- 124.) Preusse, P., G. Eidmann, S.D. Eckermann, B. Schaeler, R. Spang, and D. Offermann; *Indications of convectively generated gravity waves in CRISTA temperatures*; Adv. Space Res., 27/10, 1653-1658, 2001.
- 125.) Riese, M., A. Franzen, X. Tie, and D. Offermann; *Tracer structures in the southern hemisphere middle stratosphere observed by CRISTA-1*; Adv. Space Res., 27(10), 1623-1628, 2001.
- 126.) Spang, R., M. Riese, G. Eidmann, D. Offermann, and P.H. Wang; *A detection method for cirrus clouds using CRISTA 1 and 2 measurements*; Adv. Space Res., 27!10, 1629-1634, 2001.
- 127.) Spang, R., M. Riese, and D. Offermann; *CRISTA-2 observations of the south polar vortex in winter 1997: A new dataset for polar process studies*; Geophys. Res. Lett., 28, 3159-3162, 2001.
- 128.) Bittner, M., D. Offermann, H.-H. Graef, M. Donner, and K. Hamilton; *An 18 year time series of OH rotational temperatures and middle atmosphere decadal variations*, J. Atmos. Sol. Terr. Phys., 64, 1147-1166, 2002.
- 129.) Eidmann, G., D. Offermann, B. Schaeler, M. Jarisch, and F.J. Schmidlin; *Stratospheric variability of temperature and ozone as inferred from the second CRISTA mission: Zonal means and local structures*; J.Geophys.Res., 107, D23, 8180, 2002 (doi: 10.1029/2001JD000721).

- 130.) Ern, M., K.-U. Grossmann, and D. Offermann; *Detector signal relaxations and their correction: the Si:Ga bulk detectors of the CRISTA instrument*; Proc. SPIE, Vol. 4486, 111-121, 2002.
- 131.) Grossmann, K.U., D. Offermann, O. Gusev, J. Oberheide, M. Riese, and R. Spang; *The CRISTA-2 mission*; J.Geophys.Res., 107, D23, 8173, 2002 (doi 10.1029/2001JD000667).
- 132.) Kuell, V., M. Riese, X. Tie, T. Wiemert, G. Eidmann, D. Offermann, and G.P. Brasseur; *NO_y partitioning and aerosol influences in the stratosphere*; J.Geophys.Res., 107, D23, 8183, 2002 (doi 10.1029/2001JD001246).
- 133.) McKenna, D.S., P. Konopka, J.U. Gross, G. Guenther, R. Müller, R. Spang, D. Offermann, and Y. Orsolini; *A new Chemical Lagrangian Model of the Stratosphere (CLaMS), Part I: Formulation of advection and mixing*; J.Geophys. Res., 107, D16, 2002 (doi 10.1029/2000JD000114).
- 134.) Oberheide, J., M.E. Hagan, R.G. Roble, and D. Offermann; *Sources of nonmigrating tides in the tropical middle atmosphere*; J.Geophys.Res., 107(D21), 4567, 2002 (10.1029/2002JD002220).
- 135.) Oberheide, J., G.A. Lehmacher, D. Offermann, K.U. Grossmann, A.H. Manson, C.E. Meek, F.J. Schmidlin, W. Singer, P. Hoffmann, and R.A. Vincent; *Geostrophic wind fields in the stratosphere and mesosphere from satellite data*; J.Geophys.Res., 107, D23, 8175, 2002 (doi 10.1029/2001JD000655).
- 136.) Offermann, D., B. Schaeler, M. Riese, M. Langermann, M. Jarisch, G. Eidmann, C. Schiller, H.G.J. Smit, and W.G. Read; *Water vapor at the tropopause during the CRISTA 2 mission*; J.Geophys.Res., 107, D23, 8176, 2002 (doi 10.1029/2001JD000700).
- 137.) Preusse, P., S.D. Eckermann, M. Ern, F.J. Schmidlin, M.J. Alexander, and D. Offermann; *Infrared limb sounding measurements of middle atmospheric gravity waves by CRISTA*; Proc. SPIE, 4802-21, 2002.

- 138.) Spang, R., G. Eidmann, M. Riese, D. Offermann, P. Preusse, L. Pfister, and P.-H. Wang; *CRISTA observations of cirrus clouds around the tropopause*; J.Geophys.Res., 107, D23, 8174, 2002 (doi 10.1029/2001JD000698).
- 139.) Beig, G., P. Keckhut, R.P. Lowe, R.G. Roble, M.G. Mlynczak, J. Scheer, V.I. Fomichev, D. Offermann, W.J.R. French, M.G. Shepherd, A.I. Semenov, E.E. Remsberg, C.Y. She, F.J. Luebken, J. Bremer, B.R. Clemesha, J. Stegman, F. Sigernes, and S. Fadnavis; *Review of mesospheric temperature trends*; Rev. Geophys., Vol. 41, No.4, 1015, 2003, [10.1029/2002RG000121].
- 140.) Ebel, A., H. Feldmann, D. Offermann, and B. Schaeler; *Meso-scale studies of composition and transport in the tropopause region*, AFO 2000 Newsletter, 2003.
- 141.) Ern, M., D. Offermann, P. Preusse, K.-U. Grossmann, and J. Oberheide; *Calibration procedures and correction of detector signal relaxations for the CRISTA infrared satellite instrument*; Appl. Opt., 42, 1594-1609, 2003.
- 142.) Offermann, D., M. Donner, K.U. Grossmann, O.A. Gusev, M. Jarisch, M. Kaufmann, J. Oberheide, and A.I. Semenov; *Zonal asymmetries in middle atmosphere temperatures and trace gas densities*; Adv. Space Res., 32, No. 9, 1771-1780, 2003.
- 143.) Offermann, D., M. Donner, P. Knieling, K. Hamilton, A. Menzel, B. Naujokat, and P. Winkler; *Indications of long-term changes in middle atmosphere transports*; Adv. Space Res., 32, No. 9, 1675-1684, 2003.
- 144.) Offermann, D., V. Kuell, B. Schaeler, M. Jarisch, H.G.J. Smit, and A. Ebel; *Final report on project TRACHT-DATA; “Transport, chemistry, and distribution of trace gases in the tropopause region: Data”*, Tech. Rep., University of Wuppertal, 42097 Wuppertal, Germany, 2003.
- 145.) Preusse, P., M. Ern, Z. Chen, and D. Offermann; *Analysis of stratospheric dynamics on small and intermediate scales using CRISTA data (CRISCA)*; AFO2000 Newsletter 5, 3-6, 2003.

- 146.) Takahashi, H., T. Tsuda, T. Nakamura, F. Isoda, D. Gobbi, J. Scheer, and D. Offermann; *The lowest mesopause temperature in 1996 and 1997 at 23° S*; Adv.Space Res., 32 (9), 1781-1786, 2003.
- 147.) Konopka, P., R. Spang, G. Guenther, R. Mueller, D.S. McKenna, D. Offermann, and M. Riese; *How homogeneous and isotropic is stratospheric mixing ?: Comparison of CRISTA-1 observations with transports studies based on the Chemical Lagrangian Model of the Stratosphere (CLaMS)*; Q.J.R. Meteorol. Soc., 128, 1-13, 2004
- 148.) Kuell, V., F. Olschewski, M. Jarisch, and D. Offermann; *Trace gas variability in the stratosphere*; Adv. Space Res., 34, 1722-1730, 2004.
- 149.) Offermann, D., M. Donner, M. Jarisch, V. Kuell, J. Oberheide, B. Schaeler, R. Garcia, D. Marsh, I. Wohltmann, and P. Winkler; *Middle atmosphere parameter fluctuations as related to eddy transports and long-term circulation changes*; SPARC 3rd General Assembly, Victoria, Can, 2004, (Poster # 10045 at <http://sparc.seos.uvic.ca/>).
- 150.) Offermann, D., M. Donner, P. Knieling, and B. Naujokat; *Middle atmosphere temperature changes and the duration of summer*; J.Atmos.Sol.Terr.Phys., 66, 437-450. 2004.
- 151.) Savigny, C., K.U. Eichmann, E.J. Llewellyn, H. Bovensmann, J.P. Burrows, M. Bittner, K. Hoeppner, D. Offermann, M.J. Taylor, Y. Zhao, W. Steinbrecht, P. Winkler; *First near-global retrievals of OH rotational temperatures from satellite-based Meinel band emission measurements*; Geophys. Res. Lett., 31, L15111, doi:10.1029/2004/GL020410, 2004.
- 152.) Schaeler, B., D. Offermann, L. Hoffmann, and M. Riese; *A case study of trace gas transports near the tropopause*; Adv. Space Res., 33/7, 1053-1057, 2004.
- 153.) Schaeler, B., D. Offermann, V. Kuell, and M. Jarisch; *Global water vapour distribution in the upper troposphere and lower stratosphere during CRISTA 2*; submitted to

Adv. Space Res., 2004.

- 154.) Shepherd, M.G., W.F.J. Evans, G. Hernandez, D. Offermann, H. Takahashi; *Global variability of mesospheric temperature: 1. Mean temperature field;* J. Geophys. Res., 109, D24117, doi: 10.1029/2004JD005054, 2004.
- 155.) Shepherd, M.G., Y.J. Rochon, D. Offermann, M. Donner, and P.J. Espy; *Longitudinal variability of mesospheric temperatures during equinox at middle and high latitudes;* J.Atmos.Sol.Terr.Phys., 66, 463-479, 2004.
- 156.) Kuell, V., D. Offermann, M. Jarisch, B. Schaeler, A. Engel, H. Claude, H.G.J. Smit, A. Ebel, and H. Feldmann; *Tropopause region temperatures and CFC11 mixing ratios from CRISTA 2,* J.Geophys.Res., 110, D16104, doi: 10.1029/2004JD005592, 2005.
- 157.) Offermann, D., M. Jarisch, M. Donner, J. Oberheide, I. Wohltmann, R. Garcia, D. Marsh, B. Naujokat, and P. Winkler; *Middle atmosphere summer duration as an indicator of long-term circulation changes;* Adv. Space Res., 35, 1416-1422, 2005.
- 158.) Schaeler, B., D. Offermann, V. Kuell, M. Jarisch, H. Feldmann, and A. Ebel; *Regional and global trace gas distributions and inferred transports in the upper troposphere and lower stratosphere;* J. Geophys. Res., 110, D09104, doi: 10.1029/2004JD004994, 2005.
- 159.) Oberheide, J., H.-L. Liu, O.A. Gusev, and D. Offermann; *Mesospheric surf zone and temperature inversion layers in early November 1994;* J. Atmos. Sol. Terr. Phys., 68(15), 1752-1763, doi:10.1016/j.jastp.2005.11.013, 2006.
- 160.) Oberheide, J., D. Offermann, J.M. Russell III, and M.G. Mlynczak; *Intercomparison of kinetic temperature from 15 μm CO₂ limb emissions and OH* (3,1) rotational temperature in nearly coincident air masses: SABER, GRIPS,* Geophys. Res. Lett., 33, L14811, doi:10.1029/2006GL026439, 2006.

- 161.) Offermann, D., M. Jarisch, M. Donner, K. Hoeppner, M. Bittner, W. Steinbrecht, and A.I. Semenov; *OH temperature re-analysis forced by recent variance increases*; J. Atmos. Sol. Terr. Phys., 68(17), 1924-1933, doi:10.1016/j.jastp.2006.03.007, 2006.
- 162.) Offermann, D., M. Jarisch, J. Oberheide, O. Gusev, I. Wohltmann, J.M. Russell III, and M.G. Mlynczak; *Global wave activity from upper stratosphere to lower thermosphere: A new turbopause concept*; J. Atmos. Sol. Terr. Phys., 68(15), 1709-1729, doi:10.1016/j.jastp.2006.01.013, 2006.
- 163.) Offermann, D., J. Oberheide, M. Jarisch, K.U. Grossmann, and O. Gusev; *Similarities in middle atmosphere structures*; Meteorologische Zeitschrift, 15(3), 333-342, doi:10.1127/0941-2948/2006/0135, 2006.
- 164.) J. Scheer, E.R. Reisin, O.A. Gusev, W.J.R. French, H. Hernandez, R. Huppi, P. Ammosov, G.A. Gavrilyeva, and D. Offermann; *Use of CRISTA mesopause region temperatures for the intercalibration of ground-based instruments*; J. Atmos. Sol. Terr. Phys., 68(15), 1698-1708, doi:10.1016/j.jastp.2005.12.009, 2006.
- 165.) Offermann, D., M. Jarisch, H. Schmidt, J. Oberheide, K. U. Grossmann, O. Gusev, J. M. Russell III, and M. G. Mlynczak; *The wave turbopause*; J. Atmos. Sol. Terr. Phys., 69(17-18), 2139-2158, doi:10.1016/j.jastp.2007.05.012, 2007.
- 166.) Ebel, A., H. Feldmann, H.J. Jakobs, M. Memmesheimer, D. Offermann, V. Kuell, and B. Schaefer; *Simulation of transport and composition changes during a blocking episode over East Atlantic and North Europe*; Ecological Modelling, Volume 217, Issues 3–4, 10 October 2008, Pages 240-254, ISSN 0304-3800, doi:10.1016/j.ecolmodel.2008.06.014
- 167.) Schaefer, B., D. Offermann, V. Kuell, M. Jarisch; *Global water vapour distribution in the upper troposphere and lower stratosphere during CRISTA-2*; Adv. Space Res., 43(1), 65-73, doi:10.1016/j.asr.2008.06.019, 2009.

- 168.) Offermann, D., O. Gusev, M. Donner, J. M. Forbes, M. Hagan, M. G. Mlynczak, J. Oberheide, P. Preusse, H. Schmidt, and J. M. Russell III; *Relative Intensities of Middle Atmosphere Waves*; *J. Geophys. Res.*, 114, D06110, doi:10.1029/2008JD010662, 2009.
- 169.) Offermann, D., P. Hoffmann, P. Knieling, R. Koppmann, J. Oberheide, and W. Steinbrecht; *Long-term Trends and Solar Cycle Variations of Mesospheric Temperature and Dynamics*; *J. Geophys. Res.*, 115, D18127, doi:10.1029/2009JD013363, 2010.
- 170.) Offermann, D., P. Hoffmann, P. Knieling, R. Koppmann, J. Oberheide, D.M. Riggin, V. M. Tunbridge and W. Steinbrecht; Quasi 2 day waves in the summer mesosphere: Triple structure of amplitudes and long-term development; *J. Geophys. Res.*, 116, D00P02, doi:10.1029/2010JD015051, 2011.
- 171.) Offermann, D., J. Wintel, C. Kalicinsky, P. Knieling, R. Koppmann, and W. Steinbrecht; *Long-term development of short period gravity waves in Middle Europe*; *J. Geophys. Res.*, 116, D00P07, doi:10.1029/2010JD015544, 2011.
- 172.) Offermann, D. and R. Koppmann; *Short Period Dynamics in the Mesosphere: Morphology, Trends, and the General Circulation*; in: Climate And Weather of the Sun-Earth System (CAWSES): Highlights from a priority program, Springer, Editor: F.-J. Lübken, Dordrecht, The Netherlands, 2013.
- 173.) Offermann, D., and F. Olschewski; *Exploring the Earth's atmosphere 20 years ago: The CRISTA Experiment*; *Earth and Universe*, 2, 3-15, 2015.
- 174.) Offermann, D., O. Goussev, Ch. Kalicinsky, R. Koppmann, K. Matthes, H. Schmidt, W. Steinbrecht, and J. Wintel; *A case study of multi-annual temperature oscillations in the atmosphere: Middle Europe*; *J. Atmos. Sol. Terr. Phys.*, 135, 1-11, 2015.
- 175.) Kalicinsky, C., P. Knieling, R. Koppmann, D. Offermann, W. Steinbrecht, and J. Wintel; Long-term dynamics of OH* temperatures over central Europe: trends and solar correlations; *Atmos. Chem. Phys.*, 16, 15033-15047, 2016.

- 176.) Dirk Offermann, Christoph Kalicinsky, Ralf Koppmann, and Johannes Wintel; Very
Long Period Oscillations in the Atmosphere (0 – 110 km), *Atmos. Chem. Phys.*, 21,
1593–1611, doi.org/10.5194/acp-21-1593-2021, 2021.