

# Onsala Space Observatory, Chalmers

## Publication list 2005

Compiled by Magnus Thomasson

Publications in refereed journals 2005 enabled by the Onsala infrastructure are recorded below. For astronomy, publications in the following refereed astronomical journals are listed: Astronomy & Astrophysics (including Letters), Astronomical Journal, Astrophysical Journal (including Letters and Supplement Series), Publications of the Astronomical Society of the Pacific, and Monthly Notices of the Royal Astronomical Society (including Letters). In addition, technical publications related to the telescopes in other journals and in conference proceedings are also listed.

[Astronomy: Onsala 20 m and/or 25 m telescope \(single-dish\)](#)

[Astronomy: SEST \(single-dish\)](#)

[Astronomy: Odin \(single-dish\)](#)

[Astronomy: VLBI](#)

[Geodesy: VLBI](#)

[Aeronomy: Odin](#)

[Technology: receiver development etc.](#)

### **Astronomy: Onsala 20 m and 25 m telescopes (single-dish)**

*The diffuse clouds towards Cyg OB2 No. 5 and No. 12*

Silvia Casu, Flavio Scappini, Cesare Cecchi-Pestellini, Michael Olberg

Monthly Notices of the Royal Astronomical Society, Volume 359, Issue 1, Page 73-78 (2005)

*Molecular Abundance Ratios as a Tracer of Accelerated Collapse in Regions of High-Mass Star Formation*

C. J. Lintott , S. Viti , J. M. C. Rawlings , D. A. Williams, T. W. Hartquist, P. Caselli,

I. Zinchenko, P. Myers

The Astrophysical Journal, 620:795-799 (2005)

*Interstellar CH<sub>3</sub>CCD*

A. J. Markwick, S. B. Charnley, H. M. Butner, T. J. Millar

The Astrophysical Journal, 627:L117-L120 (2005)

*Star-forming protoclusters associated with methanol masers*

V. Minier, M. G. Burton, T. Hill, M. R. Pestalozzi, C. R. Purcell, G. Garay, A. J. Walsh, and

S. Longmore

Astronomy & Astrophysics 429, 945-960 (2005)

*A general catalogue of 6.7-GHz methanol masers - I. Data*

M. R. Pestalozzi, V. Minier, and R. S. Booth

Astronomy & Astrophysics 432, 737-742 (2005)

*Properties of detached shells around carbon stars - Evidence of interacting winds*

F. L. Schöier, M. Lindqvist, and H. Olofsson

Astronomy & Astrophysics 436, 633-646 (2005)

## **Astronomy: SEST (single-dish)**

### *Millimeter-wave emission during the 2003 low excitation phase of $\eta$ Carinae*

Z. Abraham, D. Falceta-Gonçalves, T. P. Dominici, L.-Å. Nyman, P. Durouchoux, F. McAuliffe, A. Caproni, and V. Jatenco-Pereira  
Astronomy & Astrophysics 437, 977-981 (2005)

### *Wind-wind collision in the $\eta$ Carinae binary system – II. Constraints to the binary orbital parameters from radio emission near periastron passage.*

Abraham, Z., Falceta-Gonçalves, D., Dominici, T., Caproni, A. & Jatenco-Pereira, V. (2005)  
Monthly Notices of the Royal Astronomical Society 364 (3), 922-928 (2005)

### *Infrared portrait of the nearby massive star-forming region IRAS 09002-4732*

D. Apai, H. Linz, Th. Henning, and B. Stecklum  
Astronomy & Astrophysics 434, 987-1003 (2005)

### *CH<sub>3</sub>CN Observations toward Southern Massive Star-forming Regions*

Esteban Araya, Peter Hofner, Stan Kurtz, Leonardo Bronfman, Simon DeDeo  
The Astrophysical Journal Supplement Series, 157:279-301 (2005)

### *SIMBA Observations of the Keyhole Nebula*

Kate J. Brooks, Guido Garay, Markus Nielbock, Nathan Smith, Pierre Cox  
The Astrophysical Journal, 634:436-441 (2005)

### *Evolution of Cold circumstellar Dust Around Solar-Type Stars*

John M. Carpenter, Sebastian Wowlf, Katharina Schreyer, Ralf Launhardt, Thomas Henning  
The Astronomical Journal, 129:1049-1062 (2005)

### *Star formation in RCW 108: Triggered or spontaneous?*

F. Comerón, N. Schneider, and D. Russeil  
Astronomy & Astrophysics 433, 955-977 (2005)

### *Search for massive protostellar candidates in the southern hemisphere - I. Association with dense gas*

F. Fontani, M. T. Beltrán, J. Brand, R. Cesaroni, L. Testi, S. Molinari, and C. M. Walmsley  
Astronomy & Astrophysics 432, 921-935 (2005)

### *Trans-ethyl methyl ether in space - A new look at a complex molecule in selected hot core regions*

G. W. Fuchs, U. Fuchs, T. F. Giesen, and F. Wyrowski  
Astronomy & Astrophysics 444, 521-530 (2005)

### *Relative Evolutionary Timescale of Hot Molecular Cores with Respect to Ultracompact H II Regions*

R. S. Furuya, R. Cesaroni, S. Takahashi, M. Momose, L. Testi, H. Shinnaga, C. Codella  
The Astrophysical Journal, 624:827-831 (2005)

*Star formation in the Vela Molecular Clouds: A new protostar powering a bipolar jet*  
T. Giannini, F. Massi, L. Podio, D. Lorenzetti, B. Nisini, A. Caratti o Garatti, R. Liseau, G. Lo Curto, and F. Vitali  
Astronomy & Astrophysics 433, 941-954 (2005)

*Clumpy filaments of the Chamaeleon I cloud: C<sup>18</sup>O mapping with the SEST*  
L. K. Haikala, J. Harju, K. Mattila, and M. Toriseva  
Astronomy & Astrophysics 431, 149-163 (2005)

*Millimetre continuum observations of southern massive star formation regions – I. SIMBA observations of cold cores.*  
Hill, T., Burton, M. G., Minier, V., Thompson, M. A., Walsh, A. J., Hunt-Cunningham, M. & Garay, G.  
Monthly Notices of the Royal Astronomical Society 363 (2), 405-451 (2005)

*Molecular Abundance Ratios as a Tracer of Accelerated Collapse in Regions of High-Mass Star Formation*  
C. J. Lintott , S. Viti , J. M. C. Rawlings , D. A. Williams, T. W. Hartquist, P. Caselli, I. Zinchenko, P. Myers  
The Astrophysical Journal, 620:795-799 (2005)

*Sulfur Chemistry and Isotopic Ratios in the Starburst Galaxy NGC 253*  
S. Martín, J. Martín-Pintado, R. Mauersberger, C. Henkel, S. García-Burillo  
The Astrophysical Journal, 620:210-216 (2005)

*Star-forming protoclusters associated with methanol masers*  
V. Minier, M. G. Burton, T. Hill, M. R. Pestalozzi, C. R. Purcell, G. Garay, A. J. Walsh, and S. Longmore  
Astronomy & Astrophysics 429, 945-960 (2005)

*Star formation in Sandqvist 187 and 188*  
M. Nielbock, and R. Chini  
Astronomy & Astrophysics 434, 585-592 (2005)

*Multiwavelength Observations of Radio Galaxy 3C 120 with XMM-Newton*  
P. M. Ogle, S. W. Davis, R. R. J. Antonucci, J. W. Colbert, M. A. Malkan, M. J. Page, T. P. Sasseen, M. Tornikoski  
The Astrophysical Journal, 618:139-154 (2005)

*Radio, millimeter and optical monitoring of GRB 030329 afterglow: constraining the double jet model*  
L. Resmi, C. H. Ishwara-Chandra, A. J. Castro-Tirado, D. Bhattacharya, A. P. Rao, M. Bremer, S. B. Pandey, D. K. Sahu, B. C. Bhatt, R. Sagar, G. C. Anupama, A. Subramaniam, A. Lundgren, J. Gorosabel, S. Guziy, A. de Ugarte Postigo, J. M. Castro Cerón, and T. Wiklind  
Astronomy & Astrophysics 440, 477-485 (2005)

*Chandra Spatially Resolved Spectroscopic Study and Multiwavelength Imaging of the Supernova Remnant 3C 397 (G41.1-0.3)*

S. Safi-Harb, G. Dubner, R. Petre, S. S. Holt, P. Durouchoux  
The Astrophysical Journal, 618:321-338 (2005)

*Mid-IR observations of circumstellar disks - I. Pre-main sequence objects*

O. Schütz, G. Meeus, and M. F. Sterzik  
Astronomy & Astrophysics 431, 165-174 (2005)

*Mid-IR observations of circumstellar disks - II. Vega-type stars and a post-main sequence object*

O. Schütz, G. Meeus, and M. F. Sterzik  
Astronomy & Astrophysics 431, 175-182 (2005)

*Properties of detached shells around carbon stars - Evidence of interacting winds*

Astronomy & Astrophysics 436, 633-646 (2005)  
F. L. Schöier, M. Lindqvist, and H. Olofsson

*A Rigorous Attempt to Verify Interstellar Glycine*

L. E. Snyder, F. J. Lovas, J. M. Hollis, D. N. Friedel, P. R. Jewell, A. Remijan,  
V. V. Ilyushin, E. A. Alekseev, S. F. Dyubko  
The Astrophysical Journal, 619:914-930 (2005)

*Long term variability of gigahertz-peaked spectrum sources and candidates*

I. Tornaiainen, M. Tornikoski, H. Teräsraanta, M. F. Aller, and H. D. Aller  
Astronomy & Astrophysics 435, 839-856 (2005)

*Molecules in bipolar proto-planetary nebulae*

P. M. Woods, L.-Å. Nyman, F. L. Schöier, A. A. Zijlstra, T. J. Millar, and H. Olofsson  
Astronomy & Astrophysics 429, 977-992 (2005)

*The interstellar  $C^{18}O/C^{17}O$  ratio in the solar neighbourhood: The  $\rho$  Ophiuchus cloud*

J. G. A. Wouterloot, J. Brand, and C. Henkel  
Astronomy & Astrophysics 430, 549-560 (2005)

*The Spitzer c2d Survey of Large, Nearby, Interstellar Clouds. I. Chamaeleon II Observed with MIPS*

Kaisa E. Young, Paul M. Harvey, Timothy Y. Brooke, Nicholas Chapman, Jens Kauffmann,  
Frank Bertoldi, Shih-Ping Lai, Juan Alcalá, Tyler L. Bourke, William Spiesman,  
Lori E. Allen, Geoffrey A. Blake, Neal J. Evans II, David W. Koerner, Lee G. Mundy,  
Philip C. Myers, Deborah L. Padgett, Anandi Salinas, Anneila I. Sargent, Karl R. Stapelfeldt,  
Peter Teuben, Ewine F. van Dishoeck, Zahed Wahhaj  
The Astrophysical Journal, 628:283-297 (2005)

## **Astronomy: Odin (single-dish)**

### *Wide-band observations of the 557 GHz water line in Mars with Odin*

N. Biver, A. Lecacheux, T. Encrenaz, E. Lellouch, P. Baron, J. Crovisier, U. Frisk, Å. Hjalmarson, M. Olberg, Aa. Sandqvist, and S. Kwok  
Astronomy & Astrophysics 435, 765-772 (2005)

### *W Hya through the eye of Odin - Satellite observations of circumstellar submillimetre H<sub>2</sub>O line emission*

K. Justtanont, P. Bergman, B. Larsson, H. Olofsson, F. L. Schöier, U. Frisk, T. Hasegawa, Å. Hjalmarson, S. Kwok, M. Olberg, Aa. Sandqvist, K. Volk, and M. Elitzur  
Astronomy & Astrophysics 439, 627-633 (2005)

### *Searching for O<sub>2</sub> in the SMC: - Constraints on oxygen chemistry at low metallicities*

C. D. Wilson, A. O. H. Olofsson, L. Pagani, R. S. Booth, U. Frisk, Å. Hjalmarson, M. Olberg, and Aa. Sandqvist  
Astronomy & Astrophysics 433, L5-L8 (2005)

## **Astronomy: VLBI**

Publications related to VLBI observations including the 20 m or 25 m telescopes in Onsala.

### *Ring shaped 6.7 GHz methanol maser emission around a young high-mass star*

A. Bartkiewicz, M. Szymczak, and H. J. van Langevelde  
Astronomy & Astrophysics 442, L61-L64 (2005)

### *Large-scale motion, oscillations and a possible halo on the counter-jet side in 1803+784*

S. Britzen, T. P. Krichbaum, R. G. Strom, A. Witzel, T. W. B. Muxlow, L. I. Matveenko, R. M. Campbell, W. Alef, C. A. Hummel, and A. Zensus  
Astronomy & Astrophysics 444, 443-454 (2005)

### *High-resolution radio imaging of the most distant radio quasar SDSS J0836+0054*

S. Frey, Z. Paragi, L. Mosoni, and L. I. Gurvits  
Astronomy & Astrophysics 436, L13-L16 (2005)

### *Modeling the 3C 120 Radio Jet from 1 to 30 Milliarcseconds*

P. E. Hardee, R. C. Walker, J. L. Gómez  
The Astrophysical Journal, 620:646-664 (2005)

### *When Less Is More: Are Radio Galaxies below the Fanaroff-Riley Break More Polarized on Parsec Scales?*

P. Kharb, P. Shastri, and D. C. Gabuzda  
The Astrophysical Journal, 632:L69-L73 (2005)

### *Water masers in the massive protostar IRAS 20126+4104: ejection and deceleration*

L. Moscadelli, R. Cesaroni, and M. J. Rioja  
Astronomy & Astrophysics 438, 889-898 (2005)

*EVN observations of eleven GHz-Peaked-Spectrum radio sources at 2.3/8.4 GHz*  
L. Xiang, D. Dallacasa, P. Cassaro, D. Jiang, and C. Reynolds  
Astronomy & Astrophysics 434, 123-132 (2005)

## **Geodesy: VLBI**

Publications related to VLBI observations including the 20 m or 25 m telescopes in Onsala.

*Multi-reference evaluation of uncertainty in earth orientation parameter measurements.*  
Chin T M, Gross R S, Dickey J O  
J. Geodesy, 79(1-3), 24-32, doi:10.1007/s00190-005-0439-0. (2005)

*Seasonal and secular positional variations at eight co-located GPS and VLBI stations.*  
Ding X L, Zheng D W, Dong D N, Ma C, Chen Y Q, Wang G L  
J. Geodesy, 79(1-3), 71-81, doi:10.1007/s00190-005-0444-3. (2005)

*The IGGOS viewed from the Space Geodetic Services.*  
Dow J M, Gurtner W, Schlüter W  
J. Geodyn., 40(4), 375-386, doi:10.1016/j.jog.2005.06.013. (2005)

*Effects of the 2nd order ionospheric terms on VLBI measurements,*  
Hawarey M, Hobiger T, Schuh H (2005)  
Geophys. Res. Lett., 32, L11304, doi:10.1029/2005GL022729.

*Evaluation of co-location ties relating the VLBI and GPS reference frames.*  
Ray J, Altamimi Z  
J. Geodesy, 79(4-5), 189-195, doi:10.1007/s00190-005-0456-z. (2005)

*Is there utility in rigorous combinations of VLBI and GPS Earth orientation parameters?*  
Ray J, Kouba J, Altamimi Z  
J. Geodesy, 79(9), 505-511, doi:10.1007/s00190-005-0007-7. (2005)

*Effect of post-seismic deformation on earth orientation parameter estimates from VLBI observations: a case study at Gilcreek, Alaska.*  
Titov O, Tregoning P  
J. Geodesy, 79(4-5), 196-202, doi:10.1007/s00190-005-0459-9. (2005)

## **Aeronomy: Odin**

Aeronomy publications related to Odin.

*Nighttime chlorine monoxide observations by the Odin satellite and implications for the ClO/Cl<sub>2</sub>O<sub>2</sub> equilibrium.*  
Berthet, G., Ricaud, P., Lefevre, F., Le Flochmoen, E., Urban, J., Barret, B., Lautie, N., Dupuy, E., De la Noë, J., and Murtagh, D.  
Geophys. Res. Lett., 32 (11), art. no.-L11812. doi:10.1029/2005GL022649 (2005)

*Climatology of the subvisual cirrus clouds as seen by OSIRIS on Odin*

Bourassa, A. E., Degenstein, D. A. and Llewellyn, E. J.

Adv. Space Res., 36 (5), 807. doi:10.1016/j.asr.2005.05.045 (2005)

*Observations of mesospheric ozone depletion during the October 28, 2003 solar proton event by OSIRIS*

Degenstein, D. A., Lloyd, N. D., Bourassa, A. E., Gattinger, R. L., and Llewellyn, E.

J. Geophys. Res. Lett., 32, L03S11, doi:10.1029/2004GL021521 (2005)

*Observations of an Extended Mesospheric Tertiary Ozone Peak.*

Degenstein, D. A., Gattinger, R. L., Lloyd, N. D., Bourassa, A. E., Wiensz, J. T., and Llewellyn, E. J.

J. Atms. Solar- Terr. Phys., 67 (15), 1395, doi:10.1016/j.jastp.2005.06.019 (2005)

*Qpack, a general tool for instrument simulation and retrieval work.*

Eriksson, P., Jiménez, C., and Buehler, S. A.

J. Quant. Spectrosc. Radiat. Transfer, 91 (1), 47-64, doi:10.1016/j.jqsrt.2004.05.050 (2005)

*Shape and composition of PMC particles derived from satellite remote sensing measurements.*

Eremenko, M. N., Petelina, S. V., Zsetsky, A. Y., Karlsson, B., Rinsland, C. P., Llewellyn, E. J., and Sloan, J. J.

Geophys. Res. Lett., 32 (16), art. no.-L16S06. doi:10.1029/2005GL023013 (2005)

*Co-located ACE-FTS and Odin/SMR stratospheric-mesospheric CO 2004 measurements and comparison with a GCM.*

Jin, J. J., Semeniuk, K., Jonsson, A. I., Beagley, S. R., McConnell, J. C., Boone, C. D.,

Walker, K. A., Bernath, P. F., Rinsland, C. P., Dupuy, E., Ricaud, P., De la Noë, J., Urban, J., and Murtagh, D.

Geophys. Res. Lett., 32 (15), art. no.-L15S03. doi:10.1029/2005GL022433 (2005)

*Challenges in the limb retrieval of noctilucent cloud properties from Odin/OSIRIS*

Karlsson, B. and Gumbel J.

Adv. Space Res., 36 (5) 935, doi:10.1016/j.asr.2005.04.074 (2005)

*Intercomparison of general purpose clear sky atmospheric radiative transfer models for the millimeter/sub-millimeter spectral range*

Melsheimer, C., Verdes, C., Bühler, S., Emde, C., Eriksson, P., Ichizawa, S., John, V. O., Kasai, Y., Kopp, G., Koulev, N., Kuhn, T., Lemke, O., Ochiai, S., Schreier, F., Sreerekha, T.R., Takahashi, C., Tsujimaru, S., and Urban, J.

Radio Sci., 40, RS1007, doi:10.1029/2004RS003110 (2005)

*Correlation of PMC relative brightness and altitudes observed by Odin/OSIRIS in the northern hemisphere in 2002-2003.*

Petelina, S. V., Degenstein, D. A., Llewellyn, E. J., Lloyd, N. D.

J. Atm. Solar-Terr. Phys., in press (2005)

*Thermal conditions for PMC existence derived from Odin/OSIRIS and TIMED/SABER data.*

Petelina, S. V., Degenstein, D. A., Llewellyn, E. J., Lloyd, N. D., Mertens, C. J., Mlynczak, M. G., and Russell III J. M.

Geophys. Res. Lett., 32, art.no.-L17813, doi:10.1029/2005GL023099 (2005)

*Odin/OSIRIS Limb Observations of Polar Mesospheric Clouds in 2001-2003*

Petelina, S. V., Llewellyn, E. J., Degenstein, D. A., Lloyd, N. D.

J. Atm. Solar- Terr. Phys., in press (2005)

*Validation of ACE-FTS stratospheric ozone profiles against Odin/OSIRIS measurements*

Petelina, S. V., Llewellyn, E. J., Walker, K. A., Boone, C. D., Bernath, P. F., Gattinger, R. L., Degenstein, D. A., and Lloyd, N. D.

Geophys. Res. Lett., 32 (15), art.no.-L15S06, doi:10.1029/2005GL022377 (2005)

*Evolution of stratospheric ozone during winter 2002/2003 as observed by a ground-based millimetre wave radiometer at Kiruna, Sweden.*

Raffalski, U., Hochschild, G., Kopp, G., and Urban, J..

Atmos. Chem. Phys., 5, 1399-1407, Sref : 1680-7324/acp/2005-5-1399 (2005)

*Stratospheric effects of energetic particle precipitation in 2003–2004*

Randall, C. E., Harvey, V. L., Manney, G. L., Orsolini, Y., Codrescu, M., Sioris, C., Brohede, S., Haley, C. S., Gordley, L. L., Zawodny, J. M., and Russell III, J. M.

Geophys. Res. Lett., 32, L05802, doi:10.1029/2004GL022003 (2005)

*Ozone profile retrieval from Stratospheric Aerosol and Gas Experiment (SAGE III) limb scatter measurements*

Rault, DF.

J. Geophys. Res., 110 (D9), art.no.-D09209, doi:10.1029/2004JD004970 (2005)

*Polar vortex evolution during the 2002 Antarctic major warming as observed by the Odin satellite*

Ricaud, P., Lefèvre, F., Berthet, G., Murtagh, D., Llewellyn, E. J., Mégie, G., Kyrölä, E., W. Leppelmeier, Auvinen, H., Boonne, C., Brohede, S., Degenstein, D. A., de la Noë, J., Dupuy, E., El Amraoui, L., Eriksson, P., Evans, W. F. J., Frisk, U., Gattinger, R. L., Girod, F., Haley, C. S., Hassinen, S., Hauchecorne, A., Jiménez, C., Kyrö, E., Lautié, N., Le Flochmoën, E., Lloyd, N. D., McConnell, J. C., McDade, I. C., Nordh, L., Olberg, M., Pazmino, A., Petelina, S. V., Sandqvist, A., Seppälä, A., Sioris, C. E., Solheim, B. H., Stegman, J., Strong, K., Taalas, P., Urban, J., Savigny, C. von, Schéele, F. von, and Witt, G.

J. Geophys. Res., 110 (D5), art.no.-D05302, doi:10.1029/2004JD005018 (2005)

*Sensitivity Studies and First Validation of Stratospheric Ozone Profile Retrievals from Odin/OSIRIS Observations of Limb Scattered Solar Radiation*

Savigny, C. von, McDade, I. C., Griffioen, E., Haley, C. S., Sioris, C. E., and Llewellyn, E. J. Can. J. Phys., 83 (9), 957 (2005)

*Vertical variation of NLC particle sizes retrieved from Odin/OSIRIS limb scattering observations*

Savigny, C. von, Petelina, S. V., Llewellyn, E. J., Degenstein, D. A., Lloyd, N. D., and Burrows, J.P.

Geophys. Res. Lett., 32 (7), art.no.-L070806, doi:10.1029/2004GL021982 (2005)

*Odin/SMR limb observations of stratospheric trace gases: 1. Level 2 processing of ClO, N<sub>2</sub>O, O<sub>3</sub>, and HNO<sub>3</sub>*

Urban, J., Lautié, N., Jiménez, C., Le Flochmoën, E., Dupuy, E., Eriksson, P., Frisk, U., Murtagh, D., de la Noë, J., Olberg, M., and Ricaud, P.  
J. Geophys. Res., 110 (D14), art.no.-D14307, 10.1029/2004JD005741 (2005)

*Odin/SMR limb observations of stratospheric trace gases: Validation of N<sub>2</sub>O*

Urban, J., Lautié, N., Le Flochmoën, E., Jiménez, C., Eriksson, P., de la Noë, J., Dupuy, E., El Amraoui, L., Frisk, U., Jégou, F., Murtagh, D., Olberg, M., Ricaud, P., Camy-Peyret, C., Dufour, G., Payan, S., Huret, N., Pirre, M., Robinson, A. D., Harris, N. R. P., Bremer, H., Kleinböhl, A., Küllmann, K., Künzi, K., Kuttippurath, J., Ejiri, M., Nakajima, H., Sasano, Y., Sugita, T., Yokota, T., Piccolo, C., Raspollini, P., and Ridolfi, M.  
Geophys. Res. Atm., 110 (D9), art.no.-D09301, doi:10.1029/2004JD005394 (2005)

*A sensitivity study on spectroscopic parameter accuracies for a mm/sub-mm limb sounder instrument.*

Verdes, C. L., Buehler, S. A., Perrin, A., Flaud, J. M., Demaison, J., Wlodarczak, G., Colmont, J. M., Cazzoli, G., and Puzzarini, C.  
J. Mol. Spectrosc., 229 (2), 266-275, doi:10.1016/j.jms.2004.09.014 (2005)

*Comparisons of MIPAS/ENVISAT ozone profiles with SMR/ODIN and HALOE/UARS observations*

Wang, D. Y., Stiller, G. P., von Clarmann, T., Fischer, H., Glatthor, N., Grabowski, U., Höpfner, M., Kellmann, S., Kiefer, M., Linden, A., Mengistu Tsidu, G., Milz, M., Steck, T., Wohnsiedler, S., López-Puertas, M., Funke, B., Gil-López, S., Kaufmann, M., Koukouli, M. L., Murtagh, D., Lautié, N., Jiménez, C., Jones, A., Eriksson, P., Urban, J., de La Noë, J., Le Flochmoën, E., Dupuy, E., Ricaud, P., Olberg, M., Frisk, U., Russell III, J., and Remsberg, E.  
Adv. Space Res., 36 (5) 927, doi:10.1016/j.asr.2005.03.015 (2005)

## **Technology: receiver development etc.**

*Three-level silicon micromachining for 1.3 THz APEX receiver waveguide components*

D. Karlen, D. Meledin, A. Pavolotsky, V. Belitsky, and P. Enoksson,  
MEMSWAVE 2005, Sept.3-5, 2005, Chalmers University, Gothenburg, Sweden (2005)

*Balanced Waveguide HEB Mixer for APEX 1.3 THz Receiver*

Meledin, M. Pantaleev, A. Pavolotsky, C. Risacher, V. Belitsky, V. Drakinskiy, S Cherednichenko

Proceedings 16th International Symposium on Space Terahertz Technology, 2-4 May, 2005, Gothenburg, Sweden, ISSN 1652-0769, pp. 214-216 (2005)

*Design of a Sideband Separating Receiver for 500 GHz*

R. Monje, C. Risacher, V. Vassilev, V. Belitsky

Proceedings of the 16th International Symposium on Space Terahertz Technology, Chalmers, Gothenburg, Sweden, May 2-4, 2005, ISSN 1652-0769, pp. 185-187 (2005)

*A 279-381 GHz SIS Receiver for the APEX Telescope.*

C. Risacher, V. Belitsky, I. Lapkin, R. R. Monje, M. Pantaleev, V. Vassilev, E. Sundin, A. Pavolotsky, D. Meledin, K-Å. Johansson, L-G. Gunnarsson, M. Svensson, M. Fredrixon, S-E. Ferm, V. P. Robles, M. Hagström, R. Booth, et al. (2005).

Proceedings of the 16th International Symposium on Space Terahertz Technology, Chalmers University of Technology, Gothenburg, Sweden, May 2-4, 2005, ISSN 1652-0769, pp.432-437 (2005)

*A 275-370 GHz SIS receiver with Novel Probe Structure*

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*Sideband Separating SIS Mixer with On-Substrate LO-Injection circuitry*

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