

2. 2. 10 誌上発表及び口頭発表

2. 2. 10.1 誌上発表（査読あり）

- Aoki T., Yokota T., Inoue G., Nobuta K., Kotani A. (2007) Information and disturbances contained in the reflected solar radiation spectra measured with space-borne Fourier transform spectrometer for greenhouse gas mapping. Proc. SPIE, 6405, 640506
- Aoki T., Yokota T., Nobuta K., Kotani A. (2008) The correction of disturbed near infrared spectra to be observed by space-borne Fourier Transform Spectrometer of GOSAT. J. Remote Sensing Soc. Jpn., 28 (2), 143–151
- Araki M., Morino I., Machida T., Sawa Y., Matsueda H., Yokota T., Uchino O. (2010) CO₂ column-averaged volume mixing ratio derived over Tsukuba from measurements by commercial airlines. Atmospheric Chemistry and Physics Discussions, 10, 3401–3421
- Boesch H., Parker R., Cogan A., Knappett D., Monks P., Palmer P., Feng L., Yokota T., Maksyutov S., Crisp D., Miller C.E. (2009) CO₂ and CH₄ Retrievals from GOSAT and SCIAMACHY. Proceedings of Atmospheric Science Conference ,
- Bril A., Oshchepkov S., Yokota T. (2007) Carbon dioxide retrieval from reflected sunlight spectra in the presence of cirrus cloud: model studies. Proc. SPIE, 6745(674502), 1–8
- Bril A., Oshchepkov S., Yokota T., Inoue G. (2007) Parameterization of aerosol and cirrus cloud effects on reflected sunlight spectra measured from space: application of the equivalence theorem. Appl. Opt., 46(13), 2460–2470
- Bril A., Oshchepkov S., Yokota T. (2008) Correction of atmospheric scattering effects in space-based observations of carbon dioxide: model study of desert dust aerosol. J. Quant. Spectrosc. Radiat. Transfer, 109 (10), 1815–1827
- Bril A., Oshchepkov S., Yokota T. (2009) Retrieval of atmospheric methane from high spectral resolution satellite measurements: a correction for cirrus cloud effects. Appl. Opt., 48 (11), 2139–2148
- Chevallier F., Maksyutov S., Bousquet P., Breon F.M., Saito R., Yoshida Y., Yokota T. (2009) On the accuracy of the CO₂ surface fluxes to be estimated from the GOSAT observations. Geophys. Res. Lett., 36, L19807
- Deng F., Chem J.M., Ishizawa M., Yuen C-W., Mo G., Higuchi K., Chan D., Maksyutov S. (2007) Global monthly CO₂ flux inversion with a focus over North America. Tellus B, 59(2), 179–190
- Eguchi N., Yokota T., Inoue G. (2007) Characteristics of cirrus clouds from ICESat/GLAS observations. Geophys. Res. Lett., 34, L09810
- Eguchi N., Yokota T. (2008) Investigation of clear-sky occurrence rate estimated from CALIOP and MODIS observations. Geophys. Res. Lett., 35, L23816
- Eguchi, N., R. Saito, T. Saeki, Y. Nakatsuka, D. Belikov, and S. Maksyutov (2010) A priori covariance estimation for CO₂ and CH₄ retrievals, J. Geophys. Res., in press.
- Groisman P. Y., Clark E.A., Kattsov V. M., Lettenmaier D.P., Sokolik I. N., Aizen V. B., Cartus O., Machida T., Maksyutov S. et al. (2009) The northern Eurasia earth science partnership: An example of science applied to societal needs. Bull. Am. Meteorol. Soc., 90 (5), 671–688
- Kadygov N., Maksyutov S., Eguchi N., Aoki T., Nakazawa T., Yokota T., Inoue G. (2009) Role of simulated GOSAT total column CO₂ observations in surface CO₂ flux uncertainty reduction. J. Geophys. Res., 114, D21208

- Kokhanovsky A. A., Deuze J. L., Diner D. J., Dubovik O., Docos F., Emde C., Garay M. J., Grainger R. G., Hackel A., Ota Y. (2009) The inter-comparison of major satellite aerosol retrieval algorithms using simulated intensity and polarization characteristics of reflected light, *Atmos. Meas. Tech. Discuss.*, 2, 3369–3439
- Law R.M., Peters W., Rodenbeck C., Aulagnier C., Baker I., Bergmann D.J., Bousquet P., Brandt J., Bruhwiler L., Maksyutov S. et al. (2008) TransCom model simulations of hourly atmospheric CO₂: Experimental overview and diurnal cycle results for 2002. *Global Biogeochem. Cycles*, 22, GB3009
- Lyulin O.M., Nikitin A.V., Perevalov V.I., Morino I., Yokota T., Kumazawa R., Watanabe T. (2009) Measurements of N₂- and O₂-broadening and shifting parameters of methane spectral lines in the 5550–6236 cm⁽⁻¹⁾ region. *J. Quant. Spectrosc. Radiat. Transfer*, 110 (9–10), 654–668
- Maksyutov S., Kadygrov N., Nakatsuka Y., Patra P.K., Nakazawa T., Inoue G. (2008) Projected impact of the GOSAT observations on regional CO₂ flux estimations as a function of total retrieval error. *J. Remote Sensing Soc. Jpn.*, 28 (2), 190–197
- Maksyutov S., Patra P.K., Onishi R., Saeki T., Nakazawa T. (2008) NIES/FRCGC global atmospheric tracer transport model: Description, validation, and surface sources and sinks inversion. *J. Earth Simulator*, 9, 3–18
- Nakatsuka Y., Maksyutov S. (2009) Optimization of the seasonal cycles of simulated CO₂ flux by fitting simulated atmospheric CO₂ to observed vertical profiles. *Biogeosciences*, 6, 2733–2741
- Nakayama T., Fukuda H., Kamikawa T., Sakamoto Y., Sugita A., Kawasaki M., Amano T., Sato H., Sakai S., Morino I. et al. (2007) Effective interaction energy of water dimer at room temperature: An experimental and theoretical study. *J. Chem. Phys.*, 127, 134302
- Nakayama T., Fukuda H., Kamikawa T., Sugita A., Kawasaki M., Morino I., Inoue G. (2007) Measurements of the 3 v 3 band of (14)N(15)N(16)O and (15)N(14)N(16)O using continuous-wave cavity ring-down spectroscopy. *Appl. Phys. B*, 88, 137–140
- Nakayama T., Fukuda H., Sugita A., Hashimoto S., Kawasaki M., Aloisio S., Morino I., Inoue G. (2007) Buffer-gas pressure broadening for the (0 00 3)←(0 00 0) band of N₂O measured with continuous-wave cavity ring-down spectroscopy. *Chem. Phys.*, 334, 196–203
- Nikitin A.V., Mikhailenko S., Morino I., Yokota T., Kumazawa R., Watanabe T. (2009) Isotopic substitution shifts in methane and vibrational band assignment in the 5560–6200 cm⁽⁻¹⁾ region. *J. Quant. Spectrosc. Radiat. Transfer*, 110 (12), 964–973
- Ohyama H., Morino I., Nagahama T., Machida T., Suto H., Oguma H., Sawa Y., Matsueda H., Sugimoto N., Nakane H. et al. (2009) Column-averaged volume mixing ratio of CO₂ measured with ground-based Fourier transform spectrometer at Tsukuba. *J. Geophys. Res.*, 114, D18303
- Oshchepkov S., Bril A., Yokota T. (2008) PPDF-based method to account for atmospheric light scattering in observations of carbon dioxide from space. *J. Geophys. Res.*, 113, D23210
- Oshchepkov S., Bril A., Yokota T. (2009) An improved photon path length probability density function-based radiative transfer model for space-based observation of greenhouse gases. *J. Geophys. Res.*, 114, D19207
- Oshchepkov S., Bril A., Yokota T., Inoue G. (2007) Application of the equivalence theorem to simulate GOSAT observation data under cirrus-present condition. *Proc. SPIE*, 6405, 640509
- Ota Y., Higurashi A., Nakajima T., Yokota T. (2010) Matrix formulations of radiative transfer including the polarization effect in a coupled atmosphere-ocean system. *Journal of Quantitative*

Spectroscopy & Radiative Transfer, 111, 878-894

Saito M., Kato T., Tang Y. (2009) Temperature controls ecosystem CO₂ exchange of an alpine meadow on the northeastern Tibetan Plateau. *Global Change Biol.*, 15 (1), 221-228

Saito M., Maksyutov S., Hirata R., Richardson A.D. (2009) An empirical model simulating diurnal and seasonal CO₂ flux for diverse vegetation types and climate conditions. *Biogeosciences*, 6 (4), 585-599

Saito R., Hacker J.M., Inoue G., Yokota T. (2008) Attempt to identify sources of atmospheric methane and carbon dioxide concentrations found in in situ aircraft measurements over Southern Australia. *J. Geophys. Res.*, 113, D14108

Saito R., Tanaka T., Hara H., Oguma H., Takamura T., Kuze H., Yokota T. (2009) Aircraft and ground-based observations of boundary layer CO₂ concentration in anticyclonic synoptic condition. *Geophys. Res. Lett.*, 36, L07807

Saitoh N., Imasu R., Ota Y., Niwa Y. (2009) CO₂ retrieval algorithm for the thermal infrared spectra of the Greenhouse Gases Observing Satellite: Potential of retrieving CO₂ vertical profile from high-resolution FTS sensor. *J. Geophys. Res.*, 114, D17305

Saitoh N., Ota Y., Taguchi S., Imasu R. (2007) Assessment of uncertainty in CO₂ concentrations retrieved from thermal infrared spectra of GOSAT satellite. *Proc. SPIE*, 6405, 640508

Tanaka T., Fukabori M., Sugita T., Yokota T., Kumazawa R., Watanabe T., Nakajima H. (2008) Line shape of the far-wing beyond the band head of the CO₂ ν 3 band. *J. Mol. Spectrosc.*, 252 (2), 185-189

Valsala V., Maksyutov S., Ikeda M. (2008) Design and validation of an offline oceanic tracer transport model for a carbon cycle study. *J. Clim.*, 21 (12), 2752-2769

Yamano D., Sakamoto Y., Yabushita A., Kawasaki M., Morino I., Inoue G. (2009) Buffer-gas pressure broadening for the 2 ν 3 band of methane measured with continuous-wave cavity ring-down spectroscopy. *Appl. Phys. B*, 97 (2), 523-528

Yokota T., Yoshida Y., Eguchi N., Ota Y., Tanaka T., Watanabe H., Maksyutov S. (2009) Global concentrations of CO₂ and CH₄ retrieved from GOSAT: First preliminary results. *SOLA*, 5, 160-163

Yoshida Y., Oguma H., Morino I., Suto H., Kuze A., Yokota T. (2009) Mountaintop observation of CO₂ absorption spectra using a short wavelength infrared Fourier transform spectrometer. *Applied Optics*, 49 (1), 71-79

Yoshida Y., Ota Y., Eguchi N., Tanaka T., Morino I., Uchino O., Kikuchi N., Nobuta K., Watanabe H., Yokota T. (2009) Preliminary results of the column abundances of global carbon dioxide and methane obtained from Greenhouse gases Observing SATellite (GOSAT). *Proceedings of Atmospheric Science Conference*,

太田芳文, 吉田幸生, 横田達也 (2008) 衛星からの晴天域の近赤外太陽散乱光観測による二酸化炭素気柱量推定手法の検討—誤差評価と鉛直気圧グリッドの最適化—. *J.Remote Sensing Soc. Jpn.*, 28 (2), 152-160

齋藤尚子, 今須良一, 太田芳文, 丹羽洋介 (2008) 温室効果ガス観測技術衛星(GOSAT)の熱赤外波長における二酸化炭素鉛直プロファイル導出アルゴリズム. *J.Remote Sensing Soc.Jpn.*, 28 (2), 161-177

中島映至, 中島孝, 日暮明子, 佐野到, 高村民雄, 石田春磨, ニック シュトゲンズ (2008) GOSAT 衛星搭載イメージヤーCAI を利用したエアロゾルと雲情報の抽出に関する研究. *J.Remote Sensing Soc.Jpn.*, 28 (2), 178-189

2. 2. 10.2 誌上発表（査読なし）

- 今須良一, 横田達也 (2009) 宇宙からの温室効果ガス観測の新たなる幕開け. パリティ, 25 (1), 65-67
- 植山雅仁, 齋藤誠, 滝本貴弘 (2008) Re-thinking global change science: from knowledge to policy -AsiaFlux Workshop 2008- の報告. 生物と気象, 8, D3
- 太田芳文, 江口菜穂, 吉田幸生, 塩見慶, 中塚由美子 (2006) 第3回宇宙からの温室効果ガス観測に関する国際ワークショップ(3rd IWGGMS)参加報告. 天気, 53(9), 17-22
- 笥野泰弘 (2007) 2.1.3 衛星,航空機,気球観測 a.衛星観測. 実験化学講座 20-2 環境化学(第5版)(日本化学会)
- 森野勇, 内野修, 工藤泰子, 山口高明, 横田達也 (2008) GOSAT-TANSO 検証計画. J.Remote Sensing Soc. Jpn., 28 (2), 204-210
- 横田達也 (2006) 人工衛星 GOSAT による地球規模の二酸化炭素濃度観測. 電気評論, 504, 58-59
- 横田達也, 青木忠生, 江口菜穂, 太田芳文, 吉田幸生, Oshchepkov S., Bril A., Desbiens R., 森野勇 (2008) GOSAT 搭載温室効果ガス観測センサ(TANSO-FTS)短波長赤外バンドのデータ処理手法. J. Remote Sensing Soc. Jpn., 28 (2), 133-142
- 吉田幸生, 横田達也 (2010) 温室効果ガス観測技術衛星 GOSAT による CO₂ カラム平均濃度の初期解析結果. 大気化学研究会ニュースレター, (22), 8-9
- 渡辺宏, 石原博成, 関和生, 松永恒雄, 横田達也 (2008) 国立環境研究における GOSAT 地上データシステムの開発とデータ処理方針. J. Remote Sensing Soc. Jpn., 28 (2), 127-132

2. 2. 10.3 書籍

- 今城尚志, 住吉吉英, 藤原久志, 森野勇 (2009) 第5章 スペクトルデータの解析法. 日本分光学会編, 分光装置 Q&A(分光測定入門シリーズ), 講談社, 130-152

2. 2. 10.4 口頭発表

国外: 106 件

国内: 126 件

招待講演

- Maksyutov S., Saeki T., Bloom A.A., Frankenberg C., Yoshida Y., Morino I., Yokota T. (2009) Observation-based estimate of the error in atmospheric methane column retrieved from GOSAT SWIR spectra. AGU 2009 Fall Meeting, Abstracts
- Yokota T., Yoshida Y., Eguchi N., Morino I., Uchino O., Maksyutov S., Watanabe H. (2009) Preliminary XC02 and XCH4 retrievals in the GOSAT routine processing. AGU 2009 Fall Meeting, Abstracts