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Yuming Jin

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RESEARCH INTERESTS

Global Climate Change; Global Carbon Cycle; Large-scale Atmospheric Dynamics; Climate-Biosphere Interaction

EDUCATION

Scripps Institution of Oceanography, University of California San Diego Advisor: *Dr. Ralph F. Keeling*	Ph.D. Candidate in Climate Science	2018-now	CA, USA
Donghua University	B.S. Environmental Science	2014-2018	Shanghai, China

Graduation with honor: College Graduate Excellence Award of Shanghai

Thesis: *Preparation and application of Bi_2MoO_6-based recyclable visible-light driven photocatalyst*

Advisor: *Dr. Lisha Zhang*

MANUSCRIPTS IN PREPERATION AND UNDER REVIEW

7. **Jin, Y.**, Keeling, R. F., Long, M. C., Stephens, B. B., Patra, P., Rödenbeck, C., Morgan, E. J.: Improved Atmospheric Constraint of the Southern Ocean CO_2 Exchange, in preparation.
6. **Jin, Y.**, Stephens, B. B, Keeling, R. F., Morgan, E. J., Rödenbeck, C., Patra, P., Long, M. C.: Seasonal Tropospheric Distribution and Air-sea Fluxes of Atmospheric Potential Oxygen from Global Airborne Observations, in preparation.

PEER-REVIEWED PUBLICATIONS

5. **Jin, Y.**, Keeling, R. F., Rödenbeck, C., Patra, P., Piper, S., and Schwarzman, A.: Impact of Changing Winds on the Mauna Loa CO_2 Seasonal Cycle in Relation to the Pacific Decadal Oscillation, *JRA-Atmosphere*, 2022, 127(13), DOI: https://doi.org/10.1029/2021JD035892.
4. Morgan, E., Manizza, Manfredi., Keeling, R. F., Resplandy, L., Mikaloff-Fletcher, S.E., Nevison, C.D., **Jin, Y.**, Bent, J.D., Aumont, O., Doney, S.C., Dunne, J.P., John, J., Lima, I.D., Long, M.C., Rodgers,

K.B.: An atmospheric constraint on the seasonal air–sea exchange of oxygen and heat in the extratropics, *JGR-Ocean*, 2021, 126(8), e2021JC017510, DOI: https://doi.org/10.1029/2021JC017510

3. **Jin, Y.**, Keeling, R. F., Morgan, E. J., Ray, E., Parazoo, N. C., and Stephens, B. B.: A mass-weighted isentropic coordinate for mapping chemical tracers and computing atmospheric inventories, *Atmos. Chem. Phys.*, 2021, 21, 217–238, DOI: https://doi.org/10.5194/acp-21-217-2021
2. **Jin, Y.**, Shen, X., Liu, Z., Wang, Z., Zhu, B., Xu, P., Luo, L., Zhang, L.: Synthesis of $NiTiO_3$–Bi_2MoO_6 core–shell fiber-shaped heterojunctions as efficient and easily recyclable photocatalysts. *New Journal of Chemistry*. 2018; 42(1): 411-9. DOI: 10.1039/C7NJ03367B
1. Lou, X., Fang, C., Geng, Z., **Jin, Y.**, Xiao, D., Wang, Z., Liu, J., Guo, Y.: Significantly enhanced base activation of peroxymonosulfate by polyphosphates: Kinetics and mechanism. *Chemosphere*. 2017; 173: 529-34. DOI: https://doi.org/10.1016/j.chemosphere.2017.01.093

PRESENTATIONS

7. **Jin, Y.**, Keeling, R. F., Stephens, B. B., Long, M. C., Patra, P. K.: Using airborne CO_2 observations and a mass-indexed isentropic coordinate to test transport models and improve surface flux estimates, TransCom Meeting, Wageningen, Netherlands, 16-17 Sept., 2022.
6. **Jin, Y.**, Keeling, R. F., Stephens, B. B., Long, M. C., Morgan, E. J., Rödenbeck, C., Patra, P. K.: Improved Atmospheric Constraint of the Southern Ocean CO_2 Sink, BGC-Argo Science Meeting, Virtual Meeting, 18 May, 2022.
5. **Jin, Y.**, Keeling, R. F., Stephens, B. B., Long, M. C., Morgan, E. J., Rödenbeck, C., Patra, P. K.: Constraining the Seasonal Cycle of the Southern Ocean CO_2 Uptake with Airborne Observations, Ocean Sciences Meeting 2022, Virtual Meeting, 28 Feb. – 4 Mar., 2022.
4. **Jin, Y.**, Keeling, R. F., Stephens, B. B., Long, M. C., Morgan, E. J., Rödenbeck, C., Patra, P. K.: Constraining the Seasonal Cycle of the Southern Ocean CO_2 Uptake with Airborne Observations, AGU Fall Meeting 2021, New Orleans, 13-18 Dec., 2021.
3. **Jin, Y.**, Keeling, R. F., Stephens, B. B., Morgan, E. J., Ray, E., and Parazoo, N. C.: Mapping Atmospheric CO_2 and O_2 from Airborne Observations Using a Mass-weighted Isentropic Coordinate, NOAA GML Virtual Global Monitoring Annual Conference 2021, Virtual Meeting, 24-28 May, 2021
2. **Jin, Y.**, Keeling, R. F., Morgan, E. J., Ray, E., Parazoo, N. C., and Stephens, B. B.: Mapping the CO_2 Seasonal Cycle from Airborne Observations Using a Mass-Weighted Isentropic Coordinate, American Meteorology Society Annual Meeting, Virtual Meeting, 9-15 Jan., 2021
1. **Jin, Y.**, Stephens, B. B., Bent, J., Keeling, R. F., Precise quantification of seasonal air-sea exchanges of O_2 at the hemispheric scale using data from the ATom, ORCAS, and HIPPO airborne campaigns, Ocean Sciences Meeting 2020, San Diego, CA, 16-21 Feb., 2020.

OTHER PUBLICATIONS

1. Betts, R., Jones, C., **Jin, Y.**, Keeling, R. F., Kennedy,. J. J., Knight, J. R.: Analysis: What impact will the coronavirus pandemic have on atmospheric CO_2, Carbon Brief, 2020

HONORS / AWARDS

Henry & Grace Doherty Fellowship Fund	2018
Hariko Quirk Endowment Fund	2018
National Scholarship (Ministry of Education of China)	2017
First Class Scholarship & Outstanding Student Award (Donghua University)	2015 & 2016 & 2017