

Appendix E – Impact of CARB Research Program Work in the Literature

Publishing in peer-reviewed journals is crucial for advancing scientific knowledge and enhancing the credibility of research. CARB's Research Program is committed to publishing both in-house and funded research in peer-reviewed outlets to maintain a high standard and contribute to the scientific community.

Below are two major lists of peer-reviewed publications: the first includes papers authored or co-authored by CARB staff based on work from external contracts or internal research; the second includes publications resulting directly from CARB-funded external research projects.

Research Program Staff Authored Peer-Reviewed Publications

Agudelo, C; Vedula, R; Collier, S; and Stanard, A. 2021. Brake Particulate Matter Emissions Measurements for Six Light-Duty Vehicles Using Inertia Dynamometer Testing. SAE Int. J. Adv. & Curr. Prac. in Mobility, 3(2), 994-1019, <https://doi.org/10.4271/2020-01-1637>

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Chen, Y; Gu, P; Schulte, N; Zhou, X; **Mara, S;** Croes, BE; **Herner, JD;** Vijayan, A. 2022. A new mobile monitoring approach to characterize community-scale air pollution patterns and identify local high pollution zones. Atmospheric Environment, 272, 118936, <https://doi.org/10.1016/j.atmosenv.2022.118936>

Jiang, Y; Yang, J; **Tan, Y; Yoon, S; Chang, HL; Collins, J; Maldonado, H;** Carlock, M; Clark, N; McKain, D; and Cocker III, D. 2021. Evaluation of emissions benefits of OBD-based repairs for potential application in a heavy-duty vehicle Inspection and Maintenance program. Atmospheric Environment, 247, 118186, <https://doi.org/10.1016/j.atmosenv.2021.118186>

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Lee, HJ; **Kuwayama, T**; and **FitzGibbon, M**. 2023. Trends of ambient O₃ levels associated with O₃ precursor gases and meteorology in California: Synergies from ground and satellite observations. *Remote Sensing of Environment*, 284, 113358, <https://doi.org/10.1016/j.rse.2022.113358>

Lee, HJ; **Kuwayama, T**; and **FitzGibbon, M**. 2024. Simultaneous decreases in NO₂ levels and disparities in California during the COVID-19 pandemic. *Atmospheric Environment*, 318, 120214, <https://doi.org/10.1016/j.atmosenv.2023.120214>

Liu, S; Barletta, B; Hornbrook, RS; Fried, A; Peischl, J; Meinardi, S; Coggon, M; Lamplugh, A; Gilman, JB; Gkatzelis, GI; Warneke, C; Apel, EC; Hills, AJ; Bourgeois, I; Walega, J; Weibring, P; Richter, D; **Kuwayama, T**; **FitzGibbon, M**; and Blake, D. 2022. Composition and reactivity of volatile organic compounds in the South Coast Air Basin and San Joaquin Valley of California. *Atmospheric Chemistry and Physics*, 22, 10937-10954, <https://doi.org/10.5194/acp-22-10937-2022>

Lopez, B; Wang, X; Chen, A L-W; Ma, T; Mendez-Jimenez, D; Cobb, LC; Frederickson, C; Fang, T; Hwang, B; Shiraiwa, M; Park, M; Park, K; **Yao, Q**; **Yoon, S**; Jung, H. 2023. Metal contents and size distributions of brake and tire wear particles dispersed in the near-road environment. *Science of the Total Environment*, 883, 163561, <https://doi.org/10.1016/j.scitotenv.2023.163561>

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Un-Noor, F; Scora, G; Wu, G; **Yoon, S;** and Boriboonsomsin, K. 2023. Cost-Effectiveness of Off-Road Equipment Electrification Incentives: Cost Estimation, Evaluation, and Usage Framework. Transportation Research Record, 2678(2), 574-593, <https://doi.org/10.1177/03611981231175892>

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Bilsback, K., He, Y. C., Cappa, C. D., Chang, R., Croft, B., Martin, R., Ng, N. L., Seinfeld, J. H., Pierce, J. R., and Jathar, S. 2023. Vapors are Lost to Walls, Not to Particles on the Wall: Artifact-Corrected Parameters from Chamber Experiments and Implications for Global Secondary Organic Aerosol, *Environmental Science & Technology*, 57, 53-63. <https://pubs.acs.org/doi/abs/10.1021/acs.est.2c03967>

Caputi, D.J., Faloona, I., Trousdell, J., Smoot, J., Falk, N. and Conley, S. 2019. Residual layer ozone, mixing, and the nocturnal jet in California's San Joaquin Valley. *Atmospheric Chemistry and Physics*, 19(7), pp.4721-4740.

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Charan, S. M., Buenconsejo, R. S. and Seinfeld, J. H. 2020. Secondary organic aerosol yields from the oxidation of benzyl alcohol, *Atmos. Chem. Phys.*, 20(21), 13167-13190, doi:10.5194/ACP-20-13167-2020,

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