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FIELD OF SPECIALIZATION/ विशेषज्ञता का क्षेत्र: Atmospheric aerosols-climate change वायुमंडलीय एरोसोल-जलवायु परिवर्तन

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- **Ph.D. in Physics/ पीएच.डी. भौतिकी में (2011):** Sri Krishnadevaraya University, Anantapur, India/ श्री कृष्णदेवराय विश्वविद्यालय, अनंतपुर, भारत
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POST DOCTORAL RESEARCH EXPERIENCE/ पोस्ट डॉक्टरल अनुसंधान अनुभव

- **Postdoctoral Research Associate/ पोस्टडॉक्टरल रिसर्च एसोसिएट (Feb 2019- to Jan 2022)-** Space Physics Laboratory, Vikram Sarabhai Space Centre, Indian Space Research Organisation (ISRO) Thiruvananthapuram, India/अंतरिक्ष भौतिकी प्रयोगशाला, विक्रम साराभाई अंतरिक्ष केंद्र, भारतीय अंतरिक्ष अनुसंधान संगठन (इसरो) तिरुवनंतपुरम, भारत ।
- **JSPS Pathway postdoctoral research/ जेएसपीएस पाथवे पोस्टडॉक्टरल रिसर्च (April 2016- March 2018)-** Institute of Low Temperature Science, Hokkaido University, Japan/ निम्न तापमान विज्ञान संस्थान, होक्काइडो विश्वविद्यालय, जापान ।
- **JSPS Standard postdoctoral Research/ जेएसपीएस स्टैंडर्ड पोस्टडॉक्टरल रिसर्च (April 2014- March 2016)-** Institute of Low Temperature Science, Hokkaido University, Japan/ निम्न तापमान विज्ञान संस्थान, होक्काइडो विश्वविद्यालय, जापान ।
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- **Senior Research Fellow/ सीनियर रिसर्च फेलो (October 2009-March 2012)-** Department of Physics, Sri Krishnadevaraya University, Anantapur, India/ भौतिकी विभाग, श्री कृष्णदेवराय विश्वविद्यालय, अनंतपुर, भारत

PUBLICATIONS IN PEER-REVIEWED JOURNALS/ समीक्षित पत्रिकाओं में प्रकाशन

(Total publications: 47, Total Citations: 977)

1. **Suresh K.R. Boreddy**, Prashant Hegde, B.S. Arun, A.R. Aswini, S. Suresh Babu, Molecular composition and light-absorbing properties of organic aerosols from west-coast of tropical India, **Science of the Total Environment**, 845, 157163, <http://dx.doi.org/10.1016/j.scitotenv.2022.157163> (2022)
2. **Suresh K. R. Boreddy**, P. Hegde, A. R. Aswini, Summertime High Abundances of Succinic, Citric, and Glyoxylic Acids in Antarctic Aerosols: Implications to Secondary Organic Aerosol Formation, **Journal of Geophysical Research: Atmospheres**, 127, e2021JD036172. <https://doi.org/10.1029/2021JD036172> (2022)
3. Hegde, P., **Suresh K. R. Boreddy**, Aswini, A. R. and Aryasree, S. Influence of South Asian outflow on secondary organic aerosol formation over the Indian Ocean: Inferences from water-soluble low molecular weight dicarboxylic acids and related organic compounds during ICARB 2018 experiment. **Marine Chemistry**, 239, 104071, <https://doi.org/10.1016/j.marchem.2021.104071> (2022)
4. Aswini, A. R., Hegde, P., **Suresh K. R. Boreddy**, Nair, P.R. Chemical characteristics of aerosols from distinct environments over the Indian region: Heterogeneity in distribution and sources of carbonaceous aerosols. **ACS Earth and Space Chemistry**, 6, 1, 56–72, <https://doi.org/10.1021/acsearthspacechem.1c00241> (2022).
5. **Suresh K. R. Boreddy**, Hegde, P., Aswini, A. R., & Aryasree, S. Chemical characteristics, size distributions, molecular composition, and brown carbon in south Asian outflow to the Indian Ocean. **Earth and Space Science**, 8, e2020EA001615 (2022). <https://doi.org/10.1029/2020EA001615>
6. B. S. Arun, Mukunda M. Gogoi, Prashant Hegde, Arup Borgohain, **Suresh K. R. Boreddy**, Shyam Sundar Kundu, and S. Suresh Babu. Carbonaceous aerosols over Lachung in the eastern Himalayas: primary sources and secondary formation of organic aerosols in a remote high-altitude environment, **ACS Earth and Space Chemistry** 5, 2493–2506 (2021) <https://doi.org/10.1021/acsearthspacechem.1c00190>
7. **Suresh K. R. Boreddy**, P. Hegde, A. R. Aswini, Williams, M. A., Elavarasi, R., Kumar T. V. L., Seasonal variations in characteristics, sources and diurnal patterns of carbonaceous and water-soluble constituents in urban aerosols from the east coast of tropical India, **Environmental Chemistry** 18, 45–60 (2021), <https://doi.org/10.1071/EN21017>
8. **Suresh K. R. Boreddy**, P. Hegde, A. R. Aswini, Chemical Characteristics, Size Distributions, and Aerosol Liquid Water in Size-Resolved Coastal Urban Aerosols Allied with Distinct Air Masses over Tropical Peninsular India, **ACS Earth and Space Chemistry** 5, 457–473 (2021), <https://dx.doi.org/10.1021/acsearthspacechem.0c00282>
9. Yumin Li, Tzung-May Fu, Jian Zhen Yu, Xu Feng, Lijuan Zhang, Jing Chen, **Suresh Kumar Reddy Boreddy**, Kimitaka Kawamura, Pingqing Fu, Xin Yang, Lei Zhu, Zhenzhong Zeng, Impact of Chemical Degradation on the Global Budget of Atmospheric Levoglucosan and its Use As a Biomass Burning Tracer, **Environmental Science & Technology**, 55, 5525–5536 (2021), <http://doi.org/10.1021/acs.est.0c07313>
10. **Suresh K. R. Boreddy**, P. Hegde, A. R. Aswini, Geochemical characteristics of trace elements in size-resolved coastal urban aerosols associated with distinct air masses over tropical peninsular India: size distributions and source apportionment. **Science of the Total Environment** 763 (2021) 142967, <https://doi.org/10.1016/j.scitotenv.2020.142967>
11. **Suresh K. R. Boreddy**, Fahmida Parvin, Kimitaka Kawamura, Chunmao Zhu, and Chung-Te Lee, Influence of forest fires on the formation processes of low molecular weight dicarboxylic acids, ω -oxocarboxylic acids, pyruvic acid and α -dicarbonyls in springtime fine (PM_{2.5}) aerosols over Southeast Asia, **Atmospheric Environment**, 246 (2021) 118065, <https://doi.org/10.1016/j.atmosenv.2020.118065>
12. **Suresh K. R. Boreddy** P. Hegde, A. R. Aswini, I. A. Girach, N. Koushik, K. Nalini, Impact of ice-free oases on particulate matter over the East Antarctic: inferences from the carbonaceous, water-soluble species and trace metals. **Polar Science** 24 100520 (2020). <https://doi.org/10.1016/j.polar.2020.100520>
13. Tomoki Mochizuki, Kimitaka Kawamura, Yuzo Miyazaki, and **Suresh K. R. Boreddy**, Distributions and sources of gaseous and particulate low molecular weight monocarboxylic acids in a deciduous broadleaf forest from northern Japan, **Atmospheric Chemistry and Physics**, 19, 2421–2432, <https://doi.org/10.5194/acp-19-2421-2019> , 2019.
14. **Suresh K. R. Boreddy**, Fahmida Parvin, Kimitaka Kawamura, Chunmao Zhu, and Chung-Te Lee, Stable carbon and nitrogen isotopic compositions of fine aerosols (PM_{2.5}) during an intensive biomass burning over Southeast Asia: Influence

15. **Suresh K. R. Boreddy** and Kimitaka Kawamura, Investigation on the hygroscopicity of oxalic acid and atmospherically relevant oxalate salts under sub- and supersaturated conditions, **Environmental Science: Processes and Impacts** 20, 1069–1080, DOI: 10.1039/c8em00053K, 2018
16. **Suresh K.R. Boreddy**, Md. Mozammel Haque, Kimitaka Kwamura, Pingqing Fu, Yongwon Kim, Homologous series of n-Alkanes (C₁₉–C₃₅), fatty acids (C₁₂–C₃₂) and n-alcohols (C₈–C₃₀) in atmospheric aerosols from central Alaska: Molecular distributions, seasonality and source indices, **Atmospheric Environment**, 184, 87–97, <https://doi.org/10.1016/j.atmosenv.2018.04.021>, 2018.
17. **Suresh K.R. Boreddy**, Md. Mozammel Haque, Kimitaka Kawamura, Long-term (2001–2012) trends of carbonaceous aerosols from a remote marine island in the western North Pacific: an outflow region of Asian pollutants, **Atmospheric Chemistry and Physics** 8, 1291–1306, <https://doi.org/10.5194/acp-18-1291-2018>, 2018.
18. Müller, A., Y. Miyazaki, S. G. Aggarwal, Y. Kitamori, **S. K. R. Boreddy**, and K. Kawamura, Effects of chemical composition and mixing state on size-resolved hygroscopicity and cloud condensation nuclei activity of submicron aerosols at a suburban site in northern Japan in summer, **Journal of Geophysical Research: Atmosphere**, 122, doi:10.1002/2017JD027286, 2017.
19. **Suresh K.R. Boreddy**, Tomoki Mochizuki, Kimitaka Kawamura, Srinivas Bikkina, M.M. Sarin, Homologous series of low molecular weight (C₁–C₁₀) monocarboxylic acids, benzoic acid and hydroxyacids in fine-mode (PM_{2.5}) aerosols over the Bay of Bengal: Influence of heterogeneity in air masses and formation pathways, **Atmospheric Environment**, 167, 170–180, <https://doi.org/10.1016/j.atmosenv.2017.08.008>, 2017.
20. **Suresh K.R. Boreddy**, Kimitaka Kawamura, Eri Tachibana, Long-term (2001–2013) observations water-soluble dicarboxylic acids and related compounds over the western North Pacific: Trends, seasonality and source apportionment, **Scientific Reports**, 7: 8518 DOI:10.1038/s41598-017-08745-w, 2017,
21. D.K. Deshmukh, K. Kawamura, M.K. Deb, **Suresh K.R. Boreddy**, Sources and formation processes of water-soluble dicarboxylic acids, ω-oxocarboxylic acids, α-dicarbonyls, and major ions in summer aerosols from eastern central India, **Journal of Geophysical Research: Atmosphere**, 122, 3630–3652, <https://doi.org/10.1002/2016JD026246>, 2017.
22. **Suresh K. R. Boreddy**, Kimitaka Kawamura, Kazuhiro Okuzawa, Yogo Kanaya, Zifa Wang, Temporal and diurnal variations of carbonaceous aerosols and major ions in biomass burning influenced aerosols over Mt. Tai in the North China Plain during MTX2006, **Atmospheric Environment**, 154, 106–117, <https://doi.org/10.1016/j.atmosenv.2017.01.042>, 2017.
23. Yu Yan, Pingqing Fu, Bo Jing, Chao Peng, **Suresh K. R. Boreddy**, Fan Yang, Lianfang Wei, Yele Sun, Zifa Wang, Maofa Ge: Hygroscopic behavior of water-soluble matter in marine aerosols over the East China Sea, **Science of the Total Environment** 578, 307–316, <https://doi.org/10.1016/j.scitotenv.2016.10.149>, 2017.
24. K. Raja Obul Reddy, G. Balakrishnaiah, K. Rama Gopal, N. Siva Kumar Reddy, T. Chakradhar Rao, T. Lokeswara Reddy, S. Nazeer Hussain, M. Vasudeva Reddy, R.R. Reddy, **S.K.R. Boreddy**, S. Suresh Babu: Long term (2007–2013) observations of columnar aerosol optical properties and retrieved size distributions over Anantapur, India using a multi wavelength solar radiometer. **Atmospheric Environment** 142, 238–250, <https://doi.org/10.1016/j.atmosenv.2016.07.047> 2016.
25. **S. K. R. Boreddy** and Kimitaka Kawamura, Hygroscopicity of water-soluble matter extracted from the western North Pacific aerosols: influence of atmospheric processes and long-range transport, **Science of the Total Environment**, 557–558, 285–295, doi: 10.1016/j.scitotenv.2016.03.096, 2016.
26. Yan-Lin Zhang, Kimitaka Kawamura Ping Qing Fu, **Suresh K. R. Boreddy**, Tomomi Watanabe, Shiro Hatakeyama, Akinori Takami, Wei Wang, Aircraft observations of water-soluble dicarboxylic acids in the aerosols over China. **Atmospheric Chemistry and Physics** 16 (10), 6407–6419, <https://doi.org/10.5194/acp-16-6407-2016>, 2016.
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28. **S. K. R. Boreddy**, Kimitaka Kawamura, Srinivas Bikkina, and M. M. Sarin, Hygroscopic growth of water-soluble extracts from marine aerosols (PM_{2.5}) over the Bay of Bengal: influence of heterogeneity in air masses and formation pathways, **Science of the Total Environment**, 544, 661–669, doi: 10.1016/j.scitotenv.2015.11.164, 2016.
29. **S. K. R. Boreddy**, K. Kawamura, MM Haque, Long-term (2001–2012) observation of the modeled hygroscopic growth factor of remote marine TSP aerosols over the western North Pacific: impact of long-range transport of pollutants and their mixing states, **Physical Chemistry Chemical Physics** 17 (43), 29344–29353, <https://doi.org/10.1039/C5CP05315C>, 2015.
30. S. Bikkina, K. Kawamura, K. Imanishi, **S. K. R. Boreddy**, and Y. Nojiri, Seasonal and longitudinal distributions of atmospheric water-soluble dicarboxylic acids, oxocarboxylic acids and α-dicarbonyls over the North Pacific, **Journal of Geophysical Research-Atmospheres**, 120, 5191–5213, <https://doi.org/10.1002/2014JD022972>, 2015.

31. **S. K. R. Boreddy** and Kimitaka Kawamura, A 12 year observation of water-soluble ions in TSP aerosols collected at remote marine location in the western North Pacific: an outflow region of Asian dust, **Atmospheric Chemistry and Physics** 15, 6437-6453, <https://doi.org/10.5194/acp-15-6437-2015>, 2015.
32. **S. K. R. Boreddy**, Kimitaka Kawamura, Stelyus Mkoma, and Pingqing Fu, Hygroscopic behavior of water-soluble matter extracted from Biomass burning aerosols collected at a rural site in Tanzania, East Africa. **Journal of Geophysical Research-Atmospheres**, 119, 12233-12245, DOI: 10.1002/2014JD021546, 2014.
33. **S. K. R. Boreddy**, Kimitaka Kawamura, and Jinsang Jung, Hygroscopic Properties of particles nebulized from water extracts of aerosols collected at Chichijima Island in the western North Pacific: an outflow region of Asian dust. **Journal of Geophysical Research-Atmospheres**, 119, 167-178, <https://doi.org/10.1002/2013JD020626>, 2014. IF:3.6
34. **B. Suresh Kumar Reddy**, K. Raghavendra Kumar, G. Balakrishnaiah, K. Rama Gopal, R. R. Reddy, L. S. S. Reddy, K. Narasimhulu, K. Krishna Moorthy and S. Suresh Babu. Ground based in-situ measurements of near surface aerosols over Anantapur: Heterogeneity in source impacts. **Advances in Atmospheric Sciences** 30(1), 235–246, <https://doi.org/10.1007/s00376-012-1234-5>, 2013.
35. **B. Suresh Kumar Reddy**, K. Raghavendra Kumar, G. Balakrishnaiah, K. Rama Gopal, R. R. Reddy, S.Md. Arafath, A.P. Lingaswamy, K.Umadevi, S. Pavan Kumari and Syam Lal. Analysis of diurnal and seasonal behavior of surface ozone and its precursor (NO_x) at a semi-arid rural site in southern India. **Aerosol and Air Quality Research**, 12: 1081–1094, DOI: 10.4209/aaqr.2012.03.0055 , 2012.
36. G. Balakrishnaiah, K. Raghavendra Kumar, **B. Suresh Kumar Reddy**, K. Rama Gopal, R. R. Reddy, L. S. S. Reddy, K. Narasimhulu, K. Krishna Moorthy and S. Suresh Babu. Spatio-temporal variations in aerosol optical and cloud parameters over Southern India retrieved from MODIS satellite data. **Atmospheric Environment** 47, 435-445, <https://doi.org/10.1016/j.atmosenv.2011.10.032>, 2012.
37. **B. Suresh Kumar Reddy**, K. Raghavendra Kumar, G. Balakrishnaiah, K. Rama Gopal, R. R. Reddy, K. Narasimhulu, L. Siva Sankara Reddy, K. K. Moorthy and S. Suresh Babu. Potential Source regions contributing to the seasonal variations of Black Carbon aerosols over Anantapur in southeast India. **Aerosol and Air Quality Research** 12, 340–354, DOI: 10.4209/aaqr.2011.10.0159, 2012.
38. **B. Suresh Kumar Reddy**, K. Raghavendra Kumar, G. Balakrishnaiah, K. Rama Gopal, R. R. Reddy, K. Narasimhulu, L. Siva Sankara Reddy, S. Vijaya Bhaskara Rao, K. K. Moorthy and S. Suresh Babu. Aerosol climatology over Tirupati (India) derived from surface and columnar measurements: First results from a 30 day campaign. **Journal of Atmospheric & Solar Terrestrial Physics** 73, 1727-1738, <https://doi.org/10.1016/j.jastp.2011.03.015>, 2011.
39. K. Raghavendra Kumar, K. Narasimhulu, G. Balakrishnaiah, **B. Suresh Kumar Reddy**, K. Rama Gopal, R. R. Reddy, K. Krishna Moorthy and S. Suresh Babu. Spatial heterogeneities in aerosol properties over Bay of Bengal inferred from ship-borne and MODIS observations during ICARB-W cruise campaign: Implications to radiative forcing. **Atmospheric Environment** 45, 404-412, <https://doi.org/10.1016/j.atmosenv.2010.10.004>, 2011.
40. G. Balakrishnaiah, K. Raghavendra Kumar, **B. Suresh Kumar Reddy**, K. Rama Gopal, R. R. Reddy, L. S. S. Reddy, K. Narasimhulu, K. Krishna Moorthy and S. Suresh Babu. Anthropogenic impact of BC and total mass concentration of composite aerosols over a tropical semi-arid zone: First time results from Anantapur (A.P.), India. **Journal of Asian Earth Sciences** 42, 1297-1308, DOI: 10.1016/j.jseaes.2011.07.016, 2011.
41. G. Balakrishnaiah, K. Raghavendra Kumar, **B. Suresh Kumar Reddy**, K. Rama Gopal, R. R. Reddy, L.S.S. Reddy, Y. Nazeer Ahammed, K. Narasimhulu, K. Krishna Moorthy and S. Suresh Babu. Analysis of optical properties of atmospheric aerosols inferred from spectral AODs and Ångström wavelength exponent. **Atmospheric Environment** 45, 1275-1285, <https://doi.org/10.1016/j.atmosenv.2010.12.002>, 2011.
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