

Tao WANG (Curriculum Vitae)

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Education

1992 Ph.D. (Atmospheric Chemistry), Georgia Institute of Technology, USA
1985-86 Graduate course study (Environmental Chemistry), Peking University, China, 1985
1985 B.Sc. (Chemistry), Nankai University, Tianjin, China

Employment

2013- Chair Professor of Atmospheric Environment, Department of Civil & Environmental Engineering, the Hong Kong Polytechnic University
1995-2013 Professor (2005-2013), Associate Professor (2001-2005), Assistant Professor (1995-2001), Department of Civil & Structural Engineering, the Hong Kong Polytechnic University
1992-1995 Research Fellow, Department of Atmospheric, Oceanic and Space Sciences, University of Michigan, Ann Arbor

Research Interest

Atmospheric chemical and dynamical processes related to tropospheric composition and air quality; troposphere ozone trend, ozone-precursor relationships, source and chemical processes of nitrous acid and dinitrogen pentoxide and impact on the atmospheric oxidative capacity, cloud chemistry, air pollution by ground-level ozone, haze and acid rain in rapidly developing regions; meso-scale dynamic processes in relation to air pollution, instrument and model development, integrating field, laboratory and modeling techniques; background air composition monitoring

Selected Professional Services

Editorial: Associate editor of *Journal of Geophysical Research- Atmospheres* (2008-2017); guest editor for two special issues of *Atmospheric Chemistry Physics* (2011-), a special issue of *Atmospheric Environment* (2015), and a special issue of *Science of the Total Environment* (2016), Editorial board member of *Atmospheric Environment*, *Journal of Atmospheric Chemistry*, *Atmosphere*; *Air Quality*, *Atmosphere and Health*

Committees: Member of the Scientific Steering Committee of International Global Atmospheric Chemistry Project (IGAC) (2013-2017); Vice Chair of IGAC China Working Group (2011-), Vice Chair of the Commission on Atmospheric Environment of China Environmental Association (2015-), Vice Chair of the Commission on Atmospheric Composition of China Meteorological Association (2014-); Assessment Panel on Atmospheric Science of the National Natural Science Foundation of China (2018); Engineering Panel of the Research Grant Council of Hong Kong (2006-2011); Member of the Scientific Advisory Committee of State Key Laboratory of Environmental Criteria and Risk Assessment of China (2011-), Key Laboratory of Atmospheric Chemistry of China Meteorological Administration (2014-), Shanghai Key Laboratory for Pollution Control (2014-), Innovation Center for Excellence in Regional Atmospheric Environment of the Chinese Academy of Sciences (2015-); Key Laboratory for Major Sources of Complex Atmospheric Pollution of Ministry of Environment and Ecology (2018-); Board member, China-Australia Air Science and Management Consortium (2014-); Members of the Sub-group on Air Science & Health of the Working Group on the Review of Air Quality Objectives appointed by the Hong Kong Government's Environment Bureau (2016-), Scientific advisor to the Hong Kong Observatory (2008-), Board Member of Hong Kong Institute of Qualified Environmental Professionals (2015-2018).

Leadership in research: Chief Scientist of China Basic Research Program (973 program,) on acid rain (~US\$ 4.1 million, 2006-2010) funded by Ministry of Science and Technology, Project Coordinator of a Hong Kong Research Grants Council's Theme-based Research project on urban-terrestrial-oceanic interaction and impact on air quality (~US\$4.37 million, 2018-2022);

Conference Scientific/Technical/Coordinating Committee: The 13th International Global Atmospheric Chemistry (IGAC) Science Conference (2014, Brazil), International Aerosol Conference (Korea, 2014), the 8th International Conference on Acid Deposition (China, 2011), the 12th and 13th International Conference on Atmospheric Sciences and Application (Korea 2013, Japan, 2015); Member of Local Organization Committee of The 12th IGAC Science Conference (China, 2012); Secretary General of the Organizing Committee of the 10th International Conference on Atmospheric Sciences and Application (Hong Kong, 2007)

Services in PolyU: Dean's Search Committee for Faculty of Construction and Environment (2019-20), Associate director of University Central Facility for Chemical and Environmental Analysis (2019-), Faculty Staffing Committee (Chair Professors, 2017-18); University Staffing Committee (2014-18), The Research and Postgraduate Learning Outcomes Working Group (2017), Department Chair Search Committee for Civil and Environmental Engineering (2013) and Applied Biology and Chemical Technology ABCT (2015); Executive Committee of Research Institute of Sustainable Urban Development (2013-), Leader of the Environmental Engineering Unit within CEE (2016-).

Honors: Natural Science Award of Ministry of Education of China (second class, 2009), Science and Technology Award of Ministry of Environmental Protection of China (2nd class, 2010); PolyU President's Awards for Excellent Performance/Achievement in Research and Scholarly Activities (2018), Dean's Award for Outstanding Achievement in Research Funding (2015, 2016, 2018), Dean's Award for Highly cited papers (2017, 2018, 2019), Faculty Award for Outstanding Performance/Achievement (2017); PolyU President's Awards for Outstanding Performance /Achievement in Research and Scholarly Activities (2002)

Publications [Approx. 200 peer-reviewed papers, H-index=57, Web of Science as of 2 June 2020]. <https://orcid.org/0000-0002-4765-9377>

Selected recent research grants as project coordinator/principal investigator:

1. Photochemical air pollution in highly urbanized subtropical regions: from micro environments to urban-terrestrial-oceanic interactions, Theme-based Research Scheme, Research Grants Council (RGC) of Hong Kong, \$33,330,000 (~US\$4.27 millions), 2018-2022.
2. Impact of air-sea exchanges on air quality in coastal megacities, ANR-RGC Joint Research Scheme, \$2,503,500 (~US\$320,897), RGC of Hong Kong, 2017-2020.
3. Heterogeneous processes of reactive nitrogen oxides and impact on atmospheric oxidative capacity and regional air pollution in North China, National Natural Science Foundation of China, RMB3,100,000 (~US\$476,923), 2016-2019.
4. Heterogeneous chemistry of atmospheric reactive nitrogen oxides: an integrative programme for cutting-edge science, Project Coordinator, Collaborative Research Fund, RGC of Hong Kong, HK\$4,925,180 (~US\$631,433), 2015-2018.