
Curriculum Vitae

JI-DONG GU

Environmental Engineering
Guangdong Technion - Israel Institute of Technology
<https://www.gtiiit.edu.cn/en/viewStaff.aspx?staffNo=72>

Technion Israel Institute of Technology
Haifa, Israel

Employment

2020– *Professor*, Guangdong Technion - Israel Institute of Technology
2004–2020 *Associate Professor*, The University of Hong Kong
1999–2003 *Assistant Professor*, The University of Hong Kong
1997–1999 *Senior Research Associate*, Harvard University
1994–1997 *Research Associate*, Harvard University
1993–1994 *Post-doctoral Fellow*, Harvard University
1991–1993 *Post-doctoral Fellow*, University of Massachusetts - Lowell Research Foundation

Education

1988–1991 **Ph.D.**, Virginia Tech, The United State of America
1987–1988 **M.Sc.**, University of Alberta, Canada
1985–1986 **International Certificate**, University of Alberta, Canada
1979–1983 **B.Sc.**, Heilongjiang August First Land Reclamation University, P.R. China

Awards/Honors

- Charles Rich Fellow (1991), Virginia Tech, Blacksburg, Virginia, USA
- Science and Technology Award for Environmental Protection, State Bureau of Environmental Protection, P.R. China (2006)
- First Prize of 2016 Guangzhou Science and Technology Award (No. 2015B102R02), Guangzhou, P.R. China (2016)
- First Prize of 2020 China Association of Oceanic Engineering Award (No. 2019-01-07-G02), Beijing, P.R. China (2019)
- Guest Professor, Northeastern Forestry University, Harbin, Heilongjiang, P.R. China (1997–2000)
- Guest Professor, East China University of Science and Technology, Shanghai, P.R. China (2005–)
- Guest Professor, Zhejiang University, Hangzhou, Zhejiang, P.R. China (2006–2009)
- Guest Professor, Heilongjiang August First Land Reclamation University, Daqing, Heilongjiang, P.R. China (2007–2010)
- Guest Professor, Wuhan Botanical Garden, Chinese Academy of Sciences, Wuhan, Hubei, P.R. China (2009–2014)
- Guest Professor, Hunan Agricultural University, Changsha, Hunan, P.R. China (2011–2016)
- Guest Professor, Guilin University of Technology, Guilin, Guangxi, P.R. China (2012–2017)

- Guest Professor, China University of Geoscience (Wuhan), Wuhan, Hubei, P.R. China (2016–2020)
- Guest Professor, Guangdong Academy of Agricultural Sciences, Guangzhou, Guangdong, P.R. China (2019–2002)
- Distinguished Visiting Scholar, University of Macau, Macau, P.R. China (2018)
- Visiting Professor, University of Messina, Sicily, Italy (2019.11)
- Honorary Professor, The University of Hong Kong, P.R. China (2020–2021)
- Ambassador, International Society of Microbial Ecology (2007–)
- Council Member, International Biodeterioration & Biodegradation Society (2016–)
- International Board Member, International Society for Subsurface Microbiology (2017–)

Professional Societies

- American Association for the Advancement of Science (1996–)
- American Chemical Society (1992–)
- American Society for Microbiology (1989–)
- International Biodeterioration Society (2004–)
- International Water Association (2003–)
- International Society of Microbial Ecology (2007–)

Advisory Board

- American Journal of Current Microbiology (2013–)
- Handbook of Environmental Chemistry (2015–)
- Anthropocene Science (2019–)

Editor-in-Chief

- Applied Environmental Biotechnology (Founding EiC, 2015–2020; Co-EiC, 2021–) (Whioces/UDSPUB)
- Frontiers in Microbiology: Microbiotechnology, Ecotoxicology and Bioremediation (2011–2016, Founding Editor for Ecotoxicology and Bioremediation) (Frontiers)
- International Biodeterioration & Biodegradation (2016–) (Elsevier)

Associate Editorship

- Ecotoxicology (Springer)
- Environmental Geochemistry and Health (Springer)
- Global Journal of Environmental Science and Management (2014–2016)
- International Biodeterioration & Biodegradation (–2015)
- International Journal of Environmental Science and Technology (2012–2016)
- Journal of Environmental Engineering & Ecological Science (2012–)

Editorial Board Membership of Journals

- Advances in Biology, Biotechnology and Genetics
- Applied and Environmental Microbiology (2021.01 - 2023.12)
- Asian Pacific Journal of Microbiology Research
- Biodegradation (2004–)
- International Journal of Environmental Science and Technology ()
- Journal of Polymers and the Environment (2010–)
- Journal of Microbiology Research
- Microbes and the Environment (2007–2010)
- The Open Proteomics Journal (discontinued)

Professional Services

- Scientific assignment of the United Nation Development Program to Beijing University of Aeronautics and Astronautics (1996)
- Scientific assignment of the United Nation Development Program to Jinan University (Guangzhou), Northeast Forestry University (Harbin), Harbin University of Architecture and Civil Engineering, Qingdao University, and Dalian University of Science and Technology (1997)
- Scientific assignment of the United Nation Development Program to Beijing Institute of Aviation Materials (1998)
- Adjunct Professor, South China Sea Institute of Oceanography, Chinese Academy of Sciences, Guangzhou, P.R. China (2000–2004)
- Member of the International Organizing Committee, the 1st International Conference on Pollution Eco-chemistry & Ecological Processes, Shenyang, P.R. China (2002)
- Member of the International Advisory Committee, 12th International Biodeterioration and Biodegradation Symposium, Prague, Czech Republic (2002)
- Director of the Croucher Advanced Study Institute: Surface Adhesion and Biotechnological Applications (2003)
- Organizer of the Croucher Advanced Study Institute Workshop on Surface Adhesion and Biotechnological Applications, Hong Kong SAR (2003)
- Organizing Committee Member, the 6th International Conference of Laval Biology, Hong Kong University of Science and Technology, Hong Kong SAR (2004)
- Member of the International Advisory Committee, State Key Laboratory of Marine Environmental Science at Xiamen University (2005–)
- Guest editor, a special issue on Bacterial Biofilm in *International Biodeterioration & Biodegradation* journal (Volume 58, Issue No. 2, 2006. Pages 59–105)
- Co-organizer, International Conference on Environmental Health and Pollution Control. October 22–25, 2006, Nanjing, P.R. China
- Committee Member, Environmental Microbiology of Chinese Microbiology Society, P.R. China (2006–2011)
- Consortium Member, UNESCO/Japan Fund-in-Trust for the Preservation of the World Heritage, Waseda University, Japan (2006–2011)
- Vice Chair, Microbial Influenced Corrosion Session (TEG 187X), Corrosion/2007. March 11–15, 2007, Nashville, Tennessee, USA.
- Moderator, Symposium IX: Bioremediation and Nucleic Acids and Enzyme Expression. The 3rd International Conference on Enzymes in the Environment: Activity, Ecology and Applications. July 15–19, 2007. Viterbo, Italy.
- Chairperson, Symposium on Environmental, Marine, Water Microbiology. The 2nd International Conference on Environmental, Industrial and Applied Microbiology (BioMicroWorld2007), November 28–December 1, 2007. Seville, Spain.
- International Advisory Committee Member, International Conference on Toxic Exposure Related Biomarkers, Genomes, and Health Effects, January 9–11, 2008. Nagpur, India
- Deputy Director of the Croucher Advanced Study Institute: Innovation Technologies for Soil Remediation (2007–2008)
- Chair, Microbial Influenced Corrosion Session (TEG 187X), Corrosion/2008. March 16–20, 2008, New Orleans, Louisiana, USA.
- Co-organizer, the 2nd International Conference on Environmental Health and Pollution Control. October 18–22, 2008, Nanjing, P.R. China
- Local Academic Supporting Committee Member, the 13th International Conference on Harmful Algae, November 3–7, 2008. Hong Kong SAR.
- Advisory Board Member, Handbook of Environmental Chemistry by Springer (2008–).

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- External Project Evaluator, European Union Research Project COST D33 Nano-scale Electrochemical and

- Bioprocesses (Corrosion) at Solid aqueous Interfaces of Industrial Materials. May 13–15, 2009. Cluj-Napoca, Romania.
- Organizing Committee Member, International Conference of ISME - Asia. September 14–17, 2009. Goa, India.
 - Co-organizer, International Symposium on Marine Ecology and Ecotoxicology, Guangzhou, PR China, 18–20 January, 2010.
 - Organizing Committee Member, 13th Mainland-Taiwan Environmental Protection Conference, Chongqing, PR China, 23–25 April, 2010.
 - Co-organizer, 3rd International Conference on Environmental Health and Pollution Control. October 18–22, 2010, Nanjing, P.R. China
 - Co-organizer, Croucher Advanced Study Institute: Remediation of Contaminated Land - Bioavailability and Health Risk, Hong Kong, PR China, December 9–13, 2010.
 - Co-organizer, The 1st International Conference on Geomicrobial Ecotoxicology, Wuhan, PR China, May 30 – June 2 2011.
 - International Organizing Committee Member, the 4th International Conference on Enzymes in the Environment: Activity, Ecology & Applications. Bad Nauheim, Germany, 17–21 July, 2011.
 - Guest editor, a special issue in *Ecotoxicology* journal on Sharing Knowledge on Environmental Health for Risk Mitigation (Volume 20, Issue No. 5, 2011, pages 937–1166)
 - Guest editor, a special issue in *Ecotoxicology* journal (Volume 21, Issue No. 6, 2012, pages 1583–1760)
 - Co-chair of the Scientific Organizing Committee, International Symposium on Recent Advances in Water Resources Management & Pollution Control, May 11–12, 2012, Galway, Ireland.
 - Panel member, 24th National Science Foundation of China Review Panel, July 8–18, 2012. Beijing, PR China
 - Co-organizer, 4th International Conference on Environmental Health and Pollution Control. September 24–27, 2012, Harbin-Beijing, P.R. China
 - Guest editor, a special issue on A New Era for Geomicrobial Ecotoxicology in Environmental Science research *International Biodeterioration & Biodegradation* journal (Volume 76, Issue No. 1, 2013, pages 1–118.)
 - Guest co-editors, a special issue on Recent Advances in Water Resource Management and Pollution Control with Special Focus on China in *Environmental Engineering and Management Journal* (Volume 12, Issue No. 5, 2013, pages 887–888)
 - Scientific Advisory Committee, ICoN3, Tokyo, Japan, September 2 – 5, 2013.
 - Panel member, 25th National Science Foundation of China Review Panel, July 8–18, 2013. Beijing, PR China (declined)
 - Advisory Committee Member, State Key Laboratory of Applied and Environmental Biology, Chengdu Institute of Applied Biology, Chinese Academy of Sciences, Chengdu, PR China (2013–)
 - Guest editor, a special issue on Assessment of Ecosystem Health and Ecotoxicology through Chemical Analysis and Modeling in *Ecotoxicology* journal (Volume 23, Issue No. 4, 2014, pages 475–756)
 - Guest co-editors, a special issue on Geomicrobial Processes and Ecotoxicology in *Ecotoxicology* journal (Volume 23, Issue No. 10, 2014, pages 1823–2091)
 - Scientific Advisory Committee, ICoN4, Edmonton, Alberta, Canada, June 28 – July 2 2015.
 - Guest co-editors, a special issue on Microbial metabolism of toxic organic pollutants and transformation of metals/metalloids and ecotoxicity assessment in *International Journal of Molecular Sciences* (2015)
 - Guest co-editors, a special issue on Coastal and Marine Pollution and Ecotoxicology in *Ecotoxicology* journal (Volume 24, Issue No. 7–8, 2015, pages 1407–1797)
 - Guest co-editors, a special issue on Petroleum Microbial Biotechnology: Challenges and Prospects in Frontier in Microbiology: *Microbiotechnology, Ecotoxicology and Bioremediation* (Volume, Issue No. x, 2015)
 - Panel member of Mechanism Underlying Elemental Cycling on Earth by Microorganisms in Hydrosphere

(Key and nurturing projects), National Science Foundation of China Review Panel, July 25-27, 2017.
Beijing, PR China

- International Organizing Committee Member, the 5th International Conference on Enzymes in the Environment: Activity, Ecology & Applications. Bangor, Wales, England, July 24–28, 2016.
- International Committee Member, International Society of Subsurface Microbiology (2016-).
- International Organizing Committee Member, The 4th International Environmental Engineering Conference & Annual Meeting of the Korean Society of Environmental Engineers (IEEC 2017). Jeju, South Korea, November 15–17, 2017.
- Guest co-editors, a special issue on Mining site and remediation in *International Biodeterioration & Biodegradation* journal (Volume 128, 2018, pages 1–194.)
- Panel member, National Science Foundation of China Review Panel (Key and Regular projects), July 9–17, 2018. Beijing, PR China
- Committee Chairman, National Science Foundation of China Review Panel - Life Science Microbiology (Regular projects), July 13–17, 2018. Beijing, PR China
- Panel member of Mechanism Underlying Elemental Cycling on Earth by Microorganisms in Hydrosphere (Key and nurturing projects), National Science Foundation of China Review Panel, July 31–August 3, 2018. Beijing, PR China
- Advisory Committee Member, State Environmental Protection Key Laboratory of Environmental Pollution and Health Risk Assessment, Southern China Institute of Environmental Protection and Monitoring, Guangzhou, PR China (2018–)
- Panel member of Mechanism Underlying Elemental Cycling on Earth by Microorganisms in Hydrosphere (Key and nurturing projects), National Science Foundation of China Review Panel, August 26–28, 2019. Beijing, PR China
- Scientific Committee, Organizing Committee, and Program Committee, De-ammonification 2019, December 11–13, 2019. Bangkok, Thailand
- Guest Co-editors, a special issue on Marine Coastal Ecosystem and Ecotoxicology in *Ecotoxicology* journal (Volume 29, Issue No. 6, 2020, pages 639–813)
- Guest Co-editors, a special issue in *Ecotoxicology* journal (Volume xx, Issue No. 1–2, 2021, pages xxxx–xxxx)
- Guest Co-editors, a supplementary special issue on Marine Coastal Ecosystem and Ecotoxicology in *Ecotoxicology* journal (Volume xx, Issue No. x, 2021, pages xxx–xxx)
- Scientific Organizing Committee, the 18th International Biodeterioration & Biodegradation Symposium, September 8–10, 2021. Bozeman, Montana, USA

Books

1. Mitchell, R., and J.-D. Gu (eds.) (2010) *Environmental Microbiology* (2nd ed.), Wiley-Blackwell, Hoboken, New Jersey. 363 pp.
2. Gu, J.-D. (2021) *Biosusceptibility of Polymers and Fiber-reinforced Composites and Testing Methods*, Springer, New York.
3. Gu, J.-D. (2023) *Microbial Ecotoxicology*.
4. Gu, J.-D. (2025) *Surface Adhesion and Biotechnological Applications*.
5. Gu, J.-D. (2027) *Biodeterioration of Materials: Mechanisms and Prevention*. CRC Press.
6. Mitchell, R., and J.-D. Gu (eds.) (2028) *Microbiology of Cultural Heritage and Conservation*, Wiley- Blackwell, Hoboken, New Jersey.
7. Mitchell, R., T. Ford, and J.-D. Gu (eds.) (2030) *Environmental Microbiology* (3rd ed.), Wiley-Blackwell, Hoboken, New Jersey.

Refereed Journal Papers

1. Gu, J.-D., and D.F. Berry (1991) Degradation of substituted indoles by an indole-degrading methanogenic consortium. *Applied and Environmental Microbiology* **57**: 2622–2627.

2. Berry, D.F., J.-D. Gu, and R.B. Reneau, Jr. (1991) Biodegradation of heterocyclic aromatic based pesticides and related chemicals under anaerobic conditions. *Advances in Agronomy* **1**: 93–95.
3. Gu, J.-D., and D.F. Berry (1992) Metabolism of 3-methylindole by a methanogenic consortium. *Applied and Environmental Microbiology* **58**: 2667–2669.
4. Gu, J.-D., M. Gada, G. Kharas, D. Eberiel, S.P. McCarthy, and R.A. Gross (1992) Degradability of cellulose acetate (1.7 and 2.5, D.S.) and poly(lactide) in simulated composting bioreactors. *Polymeric Materials Science and Engineering* **67**: 351–352.
5. Gu, J.-D., S.P. McCarthy, G.P. Smith, D. Eberiel, and R.A. Gross (1992) Degradability of cellulose acetate (1.7, D.S.) and cellophane in anaerobic reactors. *Polymeric Materials Science and Engineering* **67**: 230–231.
6. Gu, J.-D., D.T. Eberiel, S.P. McCarthy, and R.A. Gross (1993) Cellulose acetate biodegradability upon exposure to simulated aerobic composting and anaerobic bioreactor environments. *Journal of Environmental Polymer Degradation* **1**: 143–153.
7. Gu, J.-D., D. Eberiel, S.P. McCarthy, and R.A. Gross (1993) Degradation and mineralization of cellulose acetate in simulated thermophilic compost environments. *Journal of Environmental Polymer Degradation* **1**: 281–291.
8. Gu, J.-D., S. Coulter, D. Eberiel, S.P. McCarthy, and R.A. Gross (1993) A respirometric method to measure mineralization of polymeric materials in a matured compost environment. *Journal of Environmental Polymer Degradation* **1**: 293–299.
9. Gu, J.-D., S. Yang, R. Welton, D. Eberiel, S.P. McCarthy, and R.A. Gross (1994) Effects of environmental parameters on degradability of polymer films. *Journal of Environmental Polymer Degradation* **2**: 129–135.
10. Gu, J.-D., T.E. For, B. Mitton, and R. Mitchell (1995) Microbial degradation of complex polymeric materials used as insulation in electronic packaging materials. *Corrosion/95*, Paper No. 202, NACE International, Houston, Texas
11. Gross, R.A., J.-D. Gu, D. Eberiel, and S.P. McCarthy (1995) Laboratory scale composting test methods to determine polymer biodegradability: model studies on cellulose acetate. *Journal of Macromolecule Science - Pure & Applied Chemistry* **A32**: 613–628.
12. Gu, J.-D., T. Ford, K. Thorp, and R. Mitchell (1996) Microbial growth on fiber reinforced composite materials. *International Biodeterioration & Biodegradation* **37**: 197–203.
13. Gu, J.-D., T. Ford, and R. Mitchell (1996) Susceptibility of electronic insulation polyimides to microbial degradation. *Journal of Applied Polymer Science* **62**: 1029–1034.
14. Gu, J.-D., C. Lu, K. Thorp, A. Crasto, and R. Mitchell (1996) Fungal degradation of fiber-reinforced composite constituents. *Corrosion/96*, Paper No. 275, NACE International, Houston, Texas
15. Gu, J.-D., C. Lu, K. Thorp, A. Crasto, and R. Mitchell (1997) Fiber-reinforced polymeric composite are susceptible to microbial degradation. *Journal of Industrial Microbiology and Biotechnology* **18**: 364–369.
16. Gu, J.-D., C. Lu, K. Thorp, A. Crasto, and R. Mitchell (1997) Fungal degradation of fiber-reinforced composite constituents. *Materials Performance* **36**: 37–42.
17. Thorp, K.E.G., A.S. Crasto, J.-D. Gu, and R. Mitchell (1997) Contribution of microorganisms to corrosion. *Corrosion/97*, Paper No. 207, NACE International, Houston, Texas.
18. Gu, J.-D., M. Roman, T. Esselman, and R. Mitchell (1998) The role of microbial biofilms in deterioration of space station candidate materials. *International Biodeterioration & Biodegradation* **41**: 25–33.
19. Gu, J.-D., R. Mitchell, B. Mitton, and T.E. Ford (1998) Microbial degradation of polymeric protective coatings determined by the electrochemical impedance spectroscopy. *Biodegradation* **9**: 39–45.
20. Gu, J.-D., T.E. Ford, and R. Mitchell (1998) Biodeterioration of concrete by the *Fusarium* species. *International Biodeterioration & Biodegradation* **41**: 101–109.
21. Gu, J.-G., S.P. Cheng, J. Liu, and J.-D. Gu (2000) A sensitive electrochemical impedance spectroscopy method for detection of polyimides degradation by microorganisms. *Journal of Polymer and the Environment* **8**: 167–174.
22. Mitchell, R. and J.-D. Gu (2000) Changes in the biofilm microflora of limestone caused by atmospheric pollutants. *International Biodeterioration & Biodegradation* **46**: 299–303.

23. Gu, J.-D., B. Belay, and R. Mitchell (2001) Protection of catheter surfaces from adhesion of *Pseudomonas aeruginosa* by a combination of silver ions and lectins. *World Journal of Microbiology & Biotechnology* **17**: 173–179.
24. Gu, J.-D., and R. Mitchell (2001) Antagonism of bacterial extracellular metabolites to the freshwater fouling zebra mussels, *Dreissena polymorpha*. *The Journal of Microbiology* **39**: 133–138.
25. Gu, J.-D., and K.H. Cheung (2001) Phenotypic expression of *Vogesella indigofura* upon exposure to hexavalent chromium, Cr⁶⁺. *World Journal of Microbiology & Biotechnology* **17**: 475–480.
26. Chen, W., J. Yan, Q. Tao, X. Chen, D. Pei, J. Gu, Y. Wang, W. Qiu, Y. Fan, and S. Cheng (2002) Morphological identification with SEM for the fusant FHHH constructed from Eukaryote and Prokaryote strains. *Journal of Nanjing University (Natural Sciences)* **38** (4): 550–555. (in Chinese with English Abstract)
27. Chen, X., W. Chen, Q. Tao, J. Gu, D. Pei, J. Yan, C. Hao, and S. Cheng (2002) Transcription of *mnp* gene in inter-Kingdom fusant FHHH for degradation of PTA wastewater. *Journal of Nanjing University (Natural Sciences)* **38** (4): 544–549. (in Chinese with English Abstract)
28. Cheng, S., L. Chen, J. Yan, C. Hao, W. Li, J. Gu, G. Cheng, and N. Chen (2002) Degradation of purified terephthalic acid and expression of *mnp* gene for GEM Fhhh. *Acta Scientiae Circumstantiae* **22** (1): 1–5. (in Chinese with English Abstract)
29. Cheung, K.H., and J.-D. Gu (2002) Bacterial color response to hexavalent Chromium, Cr⁶⁺. *The Journal of Microbiology* **40**: 234–236.
30. Gu, J.-D., J.-G. Gu, J. Liu, and S.P. Cheng (2002) Sensitive detection of polyimides degradation by microorganisms using electrochemical impedance spectroscopy. *Microbes and the Environments* **17**: 105–112.
31. Gu, J.-D., Y. Fan, and H. Shi (2002) Relationship between structures of substituted indolic compounds and their degradation by marine anaerobic microorganisms. *Marine Pollution Bulletin* **45**: 379–384.
32. Gu, J.-D., and R. Mitchell (2002) Indigenous microflora and opportunistic pathogens of the freshwater zebra mussels, *Dreissena polymorpha*. *Hydrobiologia* **474**: 81–90.
33. Wang, Y., W. Qiu, Y. Fan, and J. Gu (2002) Degradation pathways and mechanisms of substituted indoles under methanogenic condition. *Chinese Journal of Applied and Environmental Biology* **8** (5): 514–519. (in Chinese with English Abstract)
34. Gu, J.-D. (2003) Microbiological deterioration and degradation of synthetic polymeric materials: recent research advances. *International Biodeterioration & Biodegradation* **52**: 69–91. DOI: 10.1016/S0964-8305(02)00177-4
35. Gu, J.-D. (2003) Microorganisms and microbial biofilms in the degradation of polymeric materials. *Corrosion/2003*, Paper No. 3570, NACE, Texas.
36. Cheung, K.H., and J.-D. Gu (2003) Reduction of chromate (CrO₄²⁻) by an enrichment consortium and an isolate of marine sulfate-reducing bacteria. *Chemosphere* **52**: 1523–1529. DOI: 10.1016/S0045-6535(03)00491-0
37. Gu, J.-D., and Y.-Y. Wang (2003) Microbial degradation of endocrine-disrupting organic compounds and environmental residues of pharmaceutical compounds. *Ecologic Science* **22** (1) 1–5. (in Chinese with English Abstract)
38. Gu, J., Y. Fan, and J.-D. Gu (2003) Biodegradability of Atrazine, Cyanazine and Dicamba under methanogenic conditions in three soils of China. *Chemosphere* **52**: 1515–1521. DOI: 10.1016/S0045-6535(03)00490-9
39. Gu, J.-G., C. Qiao, and J.-D. Gu (2003) Biodegradation of the herbicides Atrazine, Cyanazine and Dicamba by methanogenic enrichment cultures from selective soils of China. *Bulletin of Environmental Contamination and Toxicology* **71**: 924–932.
40. Hao, C.-B., J. Yan, M.-M. Qu, D. Wang, S.-P. Cheng, J.-D. Gu, W.-F. Qiu, and Y.-Y. Wang (2003) Analysis of parental strain DNA fragments existing in GEMs-Fhhh. *Journal of Environmental Sciences* **15** (5): 590–594.
41. Liang, P.-Z., and J.-D. Gu (2003) Potential degradation of polyaromatic hydrocarbons under anaerobic conditions of mangrove ecosystem. *Ecologic Science* **22** (2) 97–103. (in Chinese with English Abstract)

42. Wan, C.K., H. Sun, and J.-D. Gu (2003) Surface properties of galvanized metals and attachment by the bacterium *Janthinobacterium lividum*. *Corrosion/2003*, Paper No. 3567, NACE, Texas
43. Wang, Y., Y. Fan, and J.-D. Gu (2003) Microbial degradation of the endocrine-disrupting chemicals phthalic acid and dimethyl phthalate ester under aerobic conditions. *Bulletin of Environmental Contamination and Toxicology* **71**: 810–818.
44. Wang, Y., Y. Fan, and J.-D. Gu (2003) Aerobic degradation of phthalic acid by *Commamonas acidovorans* fy-1 and dimethyl phthalate ester by two reconstituted consortia from sewage sludge at high concentrations. *World Journal of Microbiology & Biotechnology* **19**: 811–815.
45. Wang, Y., C.W. Yip, Y.Z. Fan, and J.-D. Gu (2003) Aerobic and anaerobic degradation pathways for *N*-heterocyclic aromatic compound indole. *Bulletin of Mineralogy, Petrology and Geochemistry* **22**: 170–173.
46. Wong, M.H., J. Bridges, O. Bridges, Z.W. Cai, K.K.K. Chan, N.M. Dickinson, J.D. Gu, Y.C. Ling, H. Morikawa, R. Naidu, J. Ng, Q. Shao, P.K. Wong, X.R. Wang, S.S. Yang, and J. Zhang (2003) Special Issue: Environmental and public health management. *Chemosphere* **52**: 1345–1346. DOI: 10.1016/S0045-6535(03)00542-3
47. Xu, X.-R., and J.-D. Gu (2003) Study progress on treatment of the gasoline additive methyl *tert*-butyl ether contamination. *Ecologic Science* **22** (2) 177–182. (in Chinese with English Abstract)
48. Diao, H.F., X.Y. Li, J.D. Gu, H.C. Shi, and Z.M. Xie (2004) Electron microscopic investigation of the bactericidal action of electrochemical disinfection in comparison with chlorination, ozonation and Fenton reaction. *Process Biochemistry* **39**: 1421–1426. DOI: 10.1016/S0032-9592(03)00274-7
49. Fan, Y., Y. Wang, P. Qian, and J.-D. Gu (2004) Optimization of phthalic acid batch biodegradation and the use of modified Richards model for modeling degradation. *International Biodeterioration & Biodegradation* **53**: 57–63.
50. Gu, J.-D., W. Qiu, A. Koenig, and Y. Fan (2004) Removal of high NO₃⁻ concentrations in saline water through autotrophic denitrification by the bacterium *Thiobacillus denitrificans* strain MP. *Water Science and Technology* **49** (5-6): 105–112.
51. Gu, J.-D., Y. Fan, and J.-G. Gu (2004) Microbial degradation of herbicides under nitrate-reducing and methanogenic conditions in three soils of China. *International Biodeterioration & Biodegradation* **53**: 199–200.
52. Li, J. and J.-D. Gu (2004) Degradation of dimethyl terephthalate ester and its isomer by mangrove microorganisms. *Chinese Journal of Applied and Environmental Biology* **10** (6): 782–785. (in Chinese with English Abstract)
53. Li, X.Y., H.F. Diao, F.X.J. Fan, J.D. Gu, F. Ding, and A.S.F. Tong (2004) Electrochemical wastewater disinfection: identification of its principal germicidal actions. *Journal of Environmental Engineering* **130**: 1217–1221. DOI: 10.1061/(ASCE)0733-9372(2004)130:10(1217)
54. Shen, P., Y. Wang, and J. Gu (2004) Degradation of phthalic acid and *ortho*-dimethyl phthalate ester by bacteria isolated from sewage sludge and its biochemical pathway. *Chinese Journal of Applied and Environmental Biology* **10** (5): 643–646. (in Chinese with English Abstract)
55. Wang, Y., Y. Fan, and J.-D. Gu (2004) Dimethyl phthalate ester degradation by two planktonic and immobilized bacterial consortia. *International Biodeterioration & Biodegradation* **53**: 93–101.
56. Wang, Y., P.C. Leung, P. Qian, and J.-D. Gu (2004) Effects of UV, H₂O₂ and Fe³⁺ on the growth of four environmental isolates of *Aeromonas* and *Vibrio* species isolated from a mangrove environment. *Microbes and Environments* **19**: 163–171.
57. Xu, X.-R., Z.-Y. Zhao, X.-Y. Li, and J.-D. Gu (2004) Chemical oxidative degradation of methyl *tert*-butyl ether in aqueous solution by Fenton's reagent. *Chemosphere* **55**: 73–79. DOI: 10.1016/j.chemosphere.2003.11.017
58. Xu, X.R., and J.-D. Gu (2004) Elucidation of methyl *tert*-butyl ether degradation with Fe²⁺/H₂O₂ by purge-and-trap gas chromatography-mass spectrometry. *Microchemical Journal*. **77**: 71–77. DOI: 10.1016/j.microc.2003.12.005
59. Xu, X.R., H.B. Li, J.-D. Gu, and K.J. Paeng (2004) Determination of fluoride in water by reverse-phase high-performance liquid chromatography. *Chromatographia* **59**: 745–747.

60. Xu, X.R., H.B. Li, W.-H. Wang, and J.-D. Gu (2004) Degradation of dyes in aqueous solutions by the Fenton process. *Chemosphere* **57**: 595–600. DOI: 10.1016/j.chemosphere.2004.07.030
61. Xu, X.R., H.B. Li, and J.-D. Gu (2004) Reduction of hexavalent chromium by ascorbic acid in aqueous solutions. *Chemosphere* **57**: 609–613. DOI: 10.1016/j.chemosphere.2004.07.031
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Conference Presentations

(P, poster; OP, oral presentation; IP, invited presentation)

1. Gu, J.-D., and W.B. McGill (1988) C distribution among above and below ground plant and microbial components during growth of barley, canola and faba bean in a Gray Luvisolic soil. 34th Canadian Society of Soil Science Meeting. August 21-24, 1988. Calgary, Alberta, Canada. (P)
2. Gu, J.-D., and W.B. McGill (1988) N-15 distribution among soil, plant and microbial components during growth of barley, canola and faba bean in a Gray Luvisolic soil. 34th Canadian Society of Soil Science Meeting. August 21-24, 1988. Calgary, Alberta, Canada. (P)
3. Gu, J.-D., and W.B. McGill (1989) N dynamics studied by ¹⁵N under legume, non-legumes, and summer fallow. Southeast Branch of American Society of Soil Science Meeting. February 5-8, 1989. Nashville, Tennessee, USA. (OP)
4. Gu, J.-D., and W.B. McGill (1989) ¹⁵N traced nitrogen distribution among crops, soil, and microbial biomass. The 35th Canadian Society of Soil Science Meeting. July 10-13, 1989. Montreal, Quebec, Canada. (P)
5. Gu, J.-D., D.C. Martens, and D.F. Berry (1990) Degradation of substituted indole by an indole-degrading methanogenic consortium. American Society of Soil Science Annual Meeting, October 21-26, 1990. San Antonio, Texas, USA. (P)
6. Gu, J.-D., D. Berry, R.H. Taraban, and H.L. Walker, Jr. (1990) Fate of Atrazine, Cyanazine, and Dicamba in anoxic wetland soils. The 3rd National Research Conference on Pesticides, November 8-9, 1990. Richmond, Virginia, USA. (OP)
7. Gu, J.-D., D. Berry, and D.C. Martens (1991) Biodegradation of Dicamba in wetland soil microcosms under methanogenic conditions. The 3rd Conference of Chinese Agricultural Association of Students and Scholars in USA, June 21-23, 1991. Blacksburg, Virginia, USA. (OP)
8. Gu, J.-D., M. Gada, G. Kharas, D. Eberiel, S.P. McCarthy, and R.A. Gross (1992) Degradability of cellulose acetate (1.7 and 2.5, d.s.) and poly(lactide) in simulated composting bioreactors. American Chemical Society Meeting, August 23-28, 1992. Washington DC, USA. (P)
9. Gu, J.-D., M. Gada, G. Kharas, D. Eberiel, S.P. McCarthy, and R.A. Gross (1992) Degradability of cellulose acetate (1.7 and 2.5, d.s.) and poly(lactide) in simulated composting bioreactors. American Chemical Society Meeting, August 23-28, 1992. Washington DC, USA. (P)
10. Gu, J.-D., J.S. Maki, and R. Mitchell (1994) Biological control of zebra mussels *Dreissena polymorpha* by indigenous bacteria and their products. The 4th International Zebra Mussel Conference, March 7-10, 1994. Madison, Wisconsin, USA. (OP)
11. Gu, J.-D., T.E. Ford, K.E.G. Thorp, and R. Mitchell (1994) Microbial degradation of polymeric materials. Tri-Service Conference on Corrosion, June 21-23, 1994. Orlando, Florida, USA. (OP)
12. Gu, J.-D., and R. Mitchell (1995) Use of indigenous bacteria and their metabolites for control of the zebra mussel, *Dreissena polymorpha*. The 5th International Zebra Mussel and Other Aquatic Nuisance Organisms Conference, February 21-24, 1995. Toronto, Canada. (OP)
13. Gu, J.-D., T.E. Ford, K.E.G. Thorp, and R. Mitchell (1995) Microbial deterioration of fiber reinforced polymeric materials. Corrosion/95 Research in Progress Symposium, March 27-29, 2005. Orlando, Florida, USA. (IP)
14. Gu, J.-D., T.E. Ford, B. Mitton, and R. Mitchell (1995) Microbial degradation of complex polymeric materials used as insulation in electronic packaging materials. Corrosion/95, March 27-29, 2005. Orlando, Florida, USA. (OP)
15. Gu, J.-D., T.E. Ford, and R. Mitchell (1995) Microbial degradation of electronic insulation polymers. American Society for Microbiology Annual Meeting, May 21-25, 1995, Washington DC, USA. (P)
16. Gu, J.-D., T.E. Ford, B. Mitton, and R. Mitchell (1995) Microbial degradation of complex polymeric materials used as insulation in electronic packaging materials. Corrosion/95, March 27-29, 2005. Orlando, Florida, USA. (OP)
17. Gu, J.-D., J.S. Maki, and R. Mitchell (1995) Microbial diversity of the zebra mussel (*Dreissena polymorpha*) and feasibility for biological control. The 7th International Symposium on Microbial Ecology, August 27-September 1, 1995. Santo, Sao Paulo, Brazil. (P)

18. Gu, J.-D., T.E. Ford, K.E.G. Thorp, and R. Mitchell (1995) Effects of microorganisms on stability of fiber reinforced polymer composites. The Second International Conference on Composite Engineering, August 21-24, 1995. New Orleans, Louisiana, USA. (OP)
19. Gu, J.-D., and R. Mitchell (1995) Microbiologically influenced corrosion, degradation and deterioration of polymeric materials of space application. The 1st Young Chinese Materials Scientists Conference, September 5-8, 2005. Xi'an, People's Republic of China (IP, Plenary speaker).
20. Gu, J.-D., and R. Mitchell (1996) Effect of biofilms of indigenous bacteria on settlement of the zebra mussel, *Dreissena polymorpha*. The 6th International Zebra Mussel and Other Aquatic Nuisance Organisms Conference, March 5-7, 1996. Dearborn, Michigan, USA. (OP)
21. Gu, J.-D., T.E. Ford, K. Thorp, and R. Mitchell (1996) Fungal degradation of fiber reinforced composite materials. Corrosion/96, March 24-29, 2006. Denver, Colorado, USA. (OP)
22. Gu, J.-D., T.E. Ford, K. Thorp, A. Crasto, and R. Mitchell (1996) Microbial degradation of fiber-reinforced compositematerials. The Electrochemical Society, March 5-10, 2006. Los Angeles, California, USA. (OP)
23. Gu, J.-D., and R. Mitchell (1996) Microbial degradation of fiber-reinforced composite materials. American Society for Microbiology Annual Meeting, May 19-23, 2006. New Orleans, Louisiana, USA. (P)
24. Gu, J.-D., T.E. Ford, and R. Mitchell (1996) Fungal degradation of concrete. The 10th International Biodeterioration and Biodegradation Symposium, September 15-18, 2006. Hamburg, Germany. (OP)
25. Mitchell, R., J.-D. Gu, M. Roman, and S. Soukup (1996) Hazards to space mission from microbial biofilms. The 10th International Biodeterioration and Biodegradation Symposium, September 15-18, 2006. Hamburg, Germany. (IP, Plenary speaker)
26. Gu, J.-D., and R. Mitchell (1997) Use of microbial metabolites and natural products for zebra mussel control. The 7th International Zebra Mussel Conference, January 28-31, 1997. New Orleans, Louisiana, USA. (OP)
27. Gu, J.-D., D. Condit, T.E. Ford, and R. Mitchell (1997) Microbial induced odor and biological control. The 8th Annual UTC Engineering Conference and Technology Expo, April 15-17, 1997. Cromwell, Connecticut, USA. (OP)
28. Gu, J.-D., M. Roman, and R. Mitchell (1997) Microbial biofilm formation and degradation of candidate materials for the International Space Station. American Society for Microbiology Annual Meeting, May 4-8, 2007. Miami, Florida, USA. (P)
29. Gu, J.-D., J. Liu, and R. Mitchell (1997) Uses of electrochemical impedance spectroscopy to test for microbial susceptibility of fiber-reinforced polymeric composites. The 6th Conference of Chinese Materials Science, October 8-12, 1997. Jinan, Shangdong, People's Republic of China. (IP, Plenary speaker)
30. Mitchell, R., and J.-D. Gu (1998) Use of bacterial metabolites for control of zebra mussels (*Dreissena polymorpha*). International Conference of Zebra Mussel and Other Aquatic Nuisance Species, March 16-19, 1998. Sacramento, California, USA. (OP)
31. Gu, J.-D., and R. Mitchell (1998) Biofilm consortia responsible for degradation of polyimides and stone materials. American Society for Microbiology general Meeting, May 17-21, 2008. Atlanta, Georgia, USA. (P)
32. Gu, J.-D., T.E. Ford, and R. Mitchell (1999) Biofilm formation on air conditioning cooling coils. 99th General Meeting of the American Society for Microbiology, May 30-June 3, 1999. Chicago, Illinois, USA. (P)
33. Mitchell, R., and J.-D. Gu (1999) Interactions between air pollutants and biofilms on historic limestone. International Conference on Microbiology and Conservation (ICMC '99), June 16-19, 1999. Florence, Italy. (OP)
34. Mitchell, R., and J.-D. Gu (1999) Stimulation of sulfur and hydrocarbon utilizing biofilms on limestone exposed to air pollution. 11th International Biodeterioration and biodegradation Symposium, August 2-6, 1999. Arlington, Virginia, USA (OP).
35. Gu, J.-D., and R. Mitchell (1999) Biodegradation of artificial polymers. 11th International Biodeterioration and biodegradation Symposium, August 2-6, 1999. Arlington, Virginia, USA (OP).
36. Gu, J.-G., and J.-D. Gu (1999) Aerobic and anaerobic biodegradation of polymers: a simulation of thermophilic composting and of anaerobic landfill. 11th International Biodeterioration and biodegradation Symposium, August 2-6, 1999. Arlington, Virginia, USA (OP).
37. Gu, J.-G., R. Mitchell, and J.-D. Gu (1999) The aquatic nuisance species zebra mussel, *Dreissena polymorpha*, and biological control against their infestation and fouling. Mini-symposium on Aquacultural biotechnology, December 10-11, 1999. The Chinese University of Hong Kong, Hong Kong. (OP)
38. Gu, J.-D., T. Zhang, and H.H.P. Fang (2000) Mixed SRB biofilms on mild steel coupons examined by LCSM. 100th General Meeting of American Society for Microbiology, May 21-25, 2000. Los Angeles, California, USA. (P)
39. Gu, J.-D., J.-G. Gu, and X.Y. Li (2000) Degradation of poly(hydroxybutyrate-co-16%valerate) and cellulose acetate (DS 1.7 and 2.5) under simulated landfill condition. IAWQ Speciality Conference of Chemical and Petrochemical Industries Group - Critical Technologies to the World in 21st Century: Pollution Control and Reclamation in Process Industries, September 18-20, 2000. Beijing, People's Republic of China. (OP)
40. Gu, J.-D., and J.G. Gu (2000) Improvement of soil nutrient conditions by barley (*Hordeum vulgare* L.), canola (*Brassica napus* L.) and the legume faba bean (*Vicia faba* L.) on a low fertility Gray Luvisol. Croucher Advanced

- Study Institute - Restoration and Management of Drelict Land, November 1-7, 2000. Hong Kong Baptist University, Hong Kong. (P)
41. Gu, J.-D., Y.Z. Fan, and H.C. Shi (2001) Relationship between structures of substituted indolic compounds and their degradation by marine anaerobic microorganisms. 3rd International Conference on Marine Pollution and Ecotoxicology, June 10-14, 2001. City University of Hong Kong, Hong Kong. (OP)
 42. Cheung, K.H., and J.-D. Gu (2001) Use of bacterial stress responses for biomonitoring: test results with hexavalent chromium, Cr⁶⁺. 3rd International Conference on Marine Pollution and Ecotoxicology, June 10-14, 2001. City University of Hong Kong, Hong Kong. (OP)
 43. Gu, J.-D., B.J. Kimman, and I.D. Rankin-Moore (2001) An effective hydrocarbon-mitigation agent for decontamination of contaminated areas: an environmental toxicology evaluation. 3rd International Conference on Marine Pollution and Ecotoxicology, June 10-14, 2001. City University of Hong Kong, Hong Kong. (P)
 44. Ma, Y.K., and J.-D. Gu (2001) Fractionation of heavy metals (Cr, Cu, Cd and Pb) in marine sediments from Hung Hom, Inner Tolo Harbour and Tsing Yi shipyard in Hong Kong. 3rd International Conference on Marine Pollution and Ecotoxicology, June 10-14, 2001. City University of Hong Kong, Hong Kong. (P)
 45. Fan, Y.Z., S.P. Cheng, and J.-D. Gu (2001) Aerobic biodegradation of phthalic acid and dimethyl phthalate ester. 3rd International Conference on Marine Pollution and Ecotoxicology, June 10-14, 2001. City University of Hong Kong, Hong Kong. (P)
 46. Gu, J.-D. (2001) Biodegradation of chemically synthesized syndiotactic poly(β -[R]hydroxybutyrate) in a soil of Northeastern China. Gordon research Conference - Applied and Environmental Microbiology, July 21-27, 2001. Connecticut College, Groton, Connecticut, USA. (P)
 47. Gu, J.-D. (2001) Transformation and biodegradation of Atrazine, Cyanazine and Dicamba under methanogenic and nitrate-reducing conditions. Symposium for Young Chinese Scientists on Bioresources, Eco-environments and Biotechnology, Yichang, Hubei, People's Republic of China. (OP)
 48. Gu, J.-D., and Y. Fan (2001) Anaerobic degradation of *N*-heterocyclic aromatic compounds. 1st International Congress on Petroleum Contaminated Soils, Sediments, and Water: Analysis, Assessment and Remediation, August 14-17, 2001. Imperial College, London, U.K. (P)
 49. Gu, J.-D., and Y. Fan (2001) Emerging pathogens Aeromonads isolated from the zebra mussels, *Dreissena polymorpha* and the pathogenicity. 9th International Symposium on microbial Ecology, August 26-31, 2001. Amsterdam, The Netherlands. (P)
 50. Gu, J.-D., Y. Fan, and J.G. Gu (2001) Persistence and transformation of Atrazine, Cyanazine and Dicamba under methanogenic and nitrate-reducing conditions: a microcosm investigation. SETAC Europe Conference: Organic Soil Contaminants 2001, September 2-5, 2001. Copenhagen, Denmark. (P)
 51. Gu, J.-D. (2001) Environmental friendly antifoulants: bacteria and their metabolites. 4th Conference of Chinese Young scientists: High-Tech Industries and Development, October 19-23, 2001. Beijing, People's Republic of China. (OP)
 52. Gu, J.-D., Y. Fan, and H. Shi (2001) Degradation mechanism of indolic compounds by a methanogenic consortium of anaerobic marine microorganisms. IWA Asia Environmental Technology 2001, October 30-November 2, 2001. Suntec city, Singapore. (OP)
 53. Fan, Y., S.-P. Cheng, and J.-D. Gu (2001) Degradation of phthalic acid and dimethyl phthalate ester by enrichment cultures of aerobic bacteria. IWA Asia Environmental Technology 2001, October 30-November 2, 2001. Suntec City, Singapore. (OP)
 54. Gu, J.-D. (2002) Microbiological deterioration of polymeric materials: fact or fiction. International Congress on Emerging Corrosion Control Strategies for the New Millennium, February 20-22, 2002. New Delhi, India. (IP, Plenary speaker)
 55. Gu, J.-D., Y.Z. Fan, and J.G. Gu (2002) Biodegradability of Atrazine, Cyanazine and Dicamba under methanogenic and nitrate-reducing conditions in three soils from China. International Conference on Environmental and Public Health Management, March 12-14, 2002. Baptist University of Hong Kong, Hong Kong. (OP)
 56. Cheung, K.H., and J.-D. Gu (2002) Detoxification of hexavalent chromium (Cr⁶⁺) by microbial reduction using sulfate-reducing bacteria. International Conference on Environmental and Public Health Management, March 12-14, 2002. Baptist University of Hong Kong, Hong Kong. (P)
 57. Ma, Y.K., and J.-D. Gu (2002) Distribution and availability of heavy metals (Cr, Cd, Cu and Pb) in marine sediments of Hong Kong. International Conference on Environmental and Public Health Management, March 12-14, 2002. Baptist University of Hong Kong, Hong Kong. (P)
 58. Ma, Y.K., and J.-D. Gu (2002) Heavy metal pollution and dredging effect in selected industrial areas of Hong Kong. SETAC Europe 12th Annual Meeting: Challenges in Environmental Risk Assessment and Modeling: Linking Basic and Applied Research, May 12-16, 2002. Vienna, Austria. (P)

59. Gu, J.-D., Y.Z. Fan, and J.G. Gu (2002) Microbial degradation of herbicides under nitrate-reducing and methanogenic conditions in three soils of China. 12th International Biodeterioration and Biodegradation Symposium, July 14-18, 2002. Prague, Czech Republic. (OP)
60. Wan, C.K., H. Sun, and J.-D. Gu (2002) Adhesion of *Janthinobacterium lividum* on surfaces of several metals monitored by AFM and SEM. 12th International Biodeterioration and Biodegradation Symposium, July 14-18, 2002. Prague, Czech Republic. (OP)
61. Gu, J.-D. (2002) Microbiological problems in conservation of art objects. 7th National Conference on Archaeology and Chemical Preservation of Culture Heritage, August 3-5, 2002. Chengdu, Sichuan, People's Republic of China. (OP)
62. Gu, J.-D., Y. Fan, and J.-G. Gu (2002) Biodegradability of Atrazine, Cyanazine and Dicamba under methanogenic and nitrate-reducing conditions in three soils from China. 1st International Conference on Pollution Eco-Chemistry and Ecological Processes. August 26-31, 2002. Shenyang, People's Republic of China. (OP)
63. Wang, Y., Y. Fan, and J.-D. Gu (2002) Aerobic degradation of the endocrine-disrupting chemicals phthalic acid and dimethylphthalate ester by bacteria. 1st International Conference on Pollution Eco-Chemistry and Ecological Processes. August 26-31, 2002. Shenyang, People's Republic of China. (OP)
64. Wang, Y., and J.-D. Gu (2003) A new bacterium isolated from Mai Po Nature Reserve for degradation of the endocrine-disrupting *ortho*-dimethyl phthalate ester in a co-culture. Croucher Advanced Study institute - Wetland Ecosystems in Asia: Function and Management. March 11-15, 2003. Baptist university of Hong Kong, Hong Kong. (P)
65. Lai, M.Y., and J.-D. Gu (2003) Fractionation of heavy metals from sediments of Inner Deep Bay and Mai Po Nature reserve. Croucher Advanced Study institute - Wetland Ecosystems in Asia: Function and Management. March 11-15, 2003. Baptist university of Hong Kong, Hong Kong. (P)
66. Wang, Y., and J.-D. Gu (2003) Isolation of *Aeromonas* spp. and *Vibrio* spp. from Mai Po and the Inner Deep Bay and their environmental responses. Croucher Advanced Study institute - Wetland Ecosystems in Asia: Function and Management. March 11-15, 2003. Baptist university of Hong Kong, Hong Kong. (P)
67. Wan, C.K., H. Sun, and J.-D. Gu (2003) Surface properties of galvanized metals and attachment by the bacterium *Janinobacterium lividum*. Corrosion/2003, March 17-21, 2003. San Diego, California. (OP)
68. Gu, J.-D. (2003) Microorganisms and microbial biofilms in the degradation of polymeric materials. Corrosion/2003, March 17-21, 2003. San Diego, California. (OP)
69. Gu, J.-D., W. Qiu, A. Koenig, and Y. Fan (2003) Autotrophic denitrification by the bacterium *Thiobacillus denitrificans* strain MP for removal of high concentrations of NO₃⁻ in saline wastewater. IWA Specialty Symposium on Strong Nitrogenous and Agro-Wastewater, June 11-13, 2003. Seoul, South Korea. (OP)
70. Gu, J.-D. (2003) Surface Environmental Microbiology: from biofilms to biodeterioration and bioremediation. 6th National Symposium on Environmental Microbiology, August 24-27, 2003. Chengdu, P.R. China. (OP)
71. Gu, J.-D. (2003) Are there more bacteria capable of degradation in the environment? 6th National Symposium on Environmental Microbiology, August 24-27, 2003. Chengdu, P.R. China. (OP)
72. Wang, Y., M.Y. Lai, and J.-D. Gu (2003) Environmental *Aeromonas* and *Vibrio* spp. isolated from Mai Po Nature Reserve and Inner Deep Bay of Hong Kong, and their responses to environmental factors. International Symposium on Health-related Water, September 14-19, 2003. Cape Town, South Africa. (P)
73. Gu, J.-D., and Y. Wang (2003) Degradation of the endocrine-disrupting *ortho*-dimethyl phthalate ester: microbiology and biochemical pathways. Solution to Pollution: The Society of Environmental Toxicology and Chemistry Asia/Pacific-The Australasian Society of Ecotoxicology, September 28- October 1, 2003. Christchurch, New Zealand. (OP)
74. Wang, Y., and J.-D. Gu (2003) Effect of UV, H₂O₂ and Fe³⁺ on the growth of four environmental isolates of *Aeromonas* and *Vibrio* species isolated from Mai Po Nature Reserve of Hong Kong. Solution to Pollution: The Society of Environmental Toxicology and Chemistry Asia/Pacific-The Australasian Society of Ecotoxicology, September 28- October 1, 2003. Christchurch, New Zealand. (OP)
75. Gu, J.-D., and R. Mitchell (2003) Biodegradation of polymers from aerospace to conservation of historic cultural properties: a microbiological perspective. Croucher Advanced Study institute - Surface Adhesion and Biotechnological Applications, October 27-30, 2003. The University of Hong Kong, Hong Kong. (OP)
76. Cheung, K.H., and J.-D. Gu (2003) The University of Hong Kong, Hong Kong SAR, China. Chromate reduction by indigenous bacteria isolated from marine sediments in Hong Kong. Croucher Advanced Study institute - Surface Adhesion and Biotechnological Applications, October 27-30, 2003. The University of Hong Kong, Hong Kong. (P)
77. Gu, J.-G., Z. Zho, and J.-D. Gu (2003) *o*-Demethoxylation is the initial step in dicamba degradation under sulfate-reducing conditions using marine sediment from the Pearl River Delta of China. Croucher Advanced Study Institute - Surface Adhesion and Biotechnological Applications, October 27-30, 2003. The University of Hong Kong, Hong Kong. (P)

78. Li, J., and J.-D. Gu (2003) Degradation of dimethyl isophthalate by *Klebsiella oxytoca* Sc and *Methylobacterium mesophilum* Sr isolated from mangrove sediment. Croucher Advanced Study Institute - Surface Adhesion and Biotechnological Applications, October 27-30, 2003. The University of Hong Kong, Hong Kong. (P)
79. Liu, Y., H. Gao, and J.-D. Gu (2003) Biodegradation of 2,4-dichlorophenol by the white-rot-fungus *Phanerochaete chrysosporium* in batch culture and continuous fixed-bed biofilm reactor. Advanced Study Institute - Surface Adhesion and Biotechnological Applications, October 27-30, 2003. The University of Hong Kong, Hong Kong. (P)
80. Wang, Y., P.C. Leung, and J.-D. Gu (2003) Complete nucleotide sequence of a cryptic plasmid isolated from *Vibrio cholerae* MP-1 and identification of the open reading frames. Advanced Study Institute - Surface Adhesion and Biotechnological Applications, October 27-30, 2003. The University of Hong Kong, Hong Kong. (P)
81. Wang, Y., and J.-D. Gu (2003) A novel bacterium involved in the degradation of dimethyl phthalate ester. Advanced Study Institute - Surface Adhesion and Biotechnological Applications, October 27-30, 2003. The University of Hong Kong, Hong Kong. (P)
82. Wang, Y., and J.-D. Gu (2003) Degradation of dimethyl phthalate esters by bacteria isolated from deep ocean sediment of Southern China Sea. Advanced Study Institute - Surface Adhesion and Biotechnological Applications, October 27-30, 2003. The University of Hong Kong, Hong Kong. (P)
83. Xu, X.R., and J.-D. Gu (2003) Degradation of di-*n*-butylphthalate by *Pseudomonas fluorescens* isolated from sediment of Mai Po and Inner Deep Bay Ramsar site. Advanced Study Institute - Surface Adhesion and Biotechnological Applications, October 27-30, 2003. The University of Hong Kong, Hong Kong. (P)
84. Zhao, Z., W. Qiu, and J.-D. Gu (2003) Kinetics of autotrophic denitrification by the bacterium *Thiobacillus denitrificans* MP-1. Advanced Study Institute - Surface Adhesion and Biotechnological Applications, October 27-30, 2003. The University of Hong Kong, Hong Kong. (P)
85. Gu, J.-D., H. Zhou, K.S. Cheung, P.P. Shen, and J.H.Y. Lai (2003) Benthic infaunal community as an ecological indicator in the baseline ecological monitoring programme for the Mai Po Inner Deep Bay Ramsar Site, Hong Kong. 12th International Symposium on Biological Indicators, December 2-5, 2003. City University of Hong Kong, Hong Kong SAR, China. (P)
86. Gu, J.-D., Y. Wang, and J. Li (2004) Biodegradation of the endocrine-disrupting dimethyl phthalate ester isomers by microorganisms isolated from coastal sediment. International Workshop on Marine Pollution and Ecotoxicology, February 25-26, 2004. Goa, India. (OP)
87. Gu, J.-D., and Y. Wang (2004) *Vibrio* spp. isolated from coastal water of Hong Kong and response to environmental factors. International Workshop on Marine Pollution and Ecotoxicology, February 25-26, 2004. Goa, India. (OP)
88. Gu, J.-D., and R. Mitchell (2004) Degradation of water-soluble polyester polyurethane by *Rhodococcus globerulus* H07 isolated from soil. Corrosion/2004, March 28 -April 1, 2004. New Orleans, Louisiana, USA. (OP)
89. Gu, J.-D., and Y. Wang (2004) Degradation of the plasticizer *ortho*-dimethyl phthalate ester by environmental bacteria. March 28 -April 1, 2004. New Orleans, Louisiana, USA. (OP)
90. Gu, J.-D. (2004) Degradability and biochemical pathways of the endocrine-disrupting phthalate ester isomers by bacteria isolated from mangrove sediment. 3rd Chinese Young Environmental Scientists Conference, April 17-18, 2004. Zhejiang University, Hangzhou, P.R. China. (IP)
91. Gu, J.-D., W. Qiu, and A. Koenig (2004) Autotrophic denitrification by *Thiobacillus denitrificans* strain MP for removal of high NO₃⁻ in saline wastewater. Symposium on Marine Biology and Biotechnology, April 20-24, 2004. The Chinese University of Hong Kong, Hong Kong. (IP)
92. Wang, Y., P.C. Leung, and J.-D. Gu (2004) Complete nucleotide sequence of a cryptic plasmid isolated from *Vibrio cholerae* MP-1. Symposium on Marine Biology and Biotechnology, April 20-24, 2004. The Chinese University of Hong Kong, Hong Kong. (IP)
93. Wang, Y., and J.-D. Gu (2004) A new bacterium isolated from Mai Po Nature Reserve and its involvement in the degradation of the endocrine-disrupting *ortho*-dimethyl phthalate ester in a co-culture. Symposium on Marine Biology and Biotechnology, April 20-24, 2004. The Chinese University of Hong Kong, Hong Kong. (IP)
94. Shen, P., H. Zhou, K.S. Cheung, and J.-D. Gu (2004) Benthic infauna communities as indicators of environmental stress in the Mai Po Inner Deep Bay of Hong Kong SAR. Symposium on Marine Biology and Biotechnology, April 20-24, 2004. The Chinese University of Hong Kong, Hong Kong. (P)
95. Gu, J.-D., and K. H. Cheung (2004) Reductive detoxification of hexavalent chromium (Cr⁶⁺) by *Bacillus megaterium* TKW3 and sulfate-reducing bacteria from marine sediment. Symposium on Marine Biology and Biotechnology, April 20-24, 2004. The Chinese University of Hong Kong, Hong Kong. (P)
96. Wang, Y., and J.-D. Gu (2004) Degradation of phthalate isomers by bacteria isolated from deep ocean sediment of South China Sea. Symposium on Marine Biology and Biotechnology, April 20-24, 2004. The Chinese University of Hong Kong, Hong Kong. (P)

97. Gu, J.-D., J. Li, and Y. Wang (2004) Degradation of the endocrine-disrupting dimethyl phthalate ester isomers by aerobic microorganisms isolated from mangrove sediment. European Symposium on Environmental Biotechnology, April 25-28, 2004. Oostende, Belgium. (P)
98. Gu, J.-D. (2004) Degradation of the endocrine-disrupting dimethyl phthalate ester isomers: microbiology, metabolic pathways and ecological implications. International Symposium on Biotechnology for Environmental Pollution Control, August 14-15, 2004. Tsinghua University, Beijing, P.R. China. (IP)
99. Wang, Y., and J.-D. Gu (2004) Microbial degradation of the endocrine-disrupting *ortho*-dimethyl phthalate esters by bacteria from mangrove sediment. 4th International Conference on Marine and Pollution Ecotoxicology, June 1-5, 2004. City University of Hong Kong, Hong Kong. (IP)
100. Shen, P., and J.-D. Gu (2004) Macrobenthic communities as indicators of environmental quality in the Mai Po Inner Deep Bay, Hong Kong. 4th International Conference on Marine and Pollution Ecotoxicology, June 1-5, 2004. City University of Hong Kong, Hong Kong. (P)
101. Gu, J.-D., and R. Mitchell (2004) Indigenous microflora and opportunistic pathogens of the freshwater fouling zebra mussel, *Dreissena polymorpha* and the role of extracellular metabolites against their settlement. 6th International Larval Biology Conference, June 21-25, 2004. Hong Kong University of Science and Technology, Hong Kong. (IP)
102. Gu, J.-D. (2004) Microbial and biochemical diversity of phthalates degradation. 1st China-Germany Symposium on Environmental Microbiology, August 1-6, 2004. Beijing, P.R. China. (IP)
103. Gu, J.-D., Y. Wang, and C.K. Wan (2004) Degradation of poly(β -hydroxybutyrate-co-16% valerate) and cellulose acetates in simulated methanogenic bioreactors. Proceedings of Anaerobic Digestion 2004. August 29-September 2, 2004. Montreal, Canada. (P)
104. Gu, J.-D., and S.-F. Yen (2004) Susceptibility of polymers used in artworks to biodeterioration by environmental microorganisms. International Institute for Conservation Congress, September 13-18, 2004. Bilbao, Spain. (P)
105. Li, J., and J.-D. Gu (2004) Environmental endocrine-disrupting chemicals - Degradation of dimethyl phthalate ester by bacteria and the biochemical pathways. 2nd Conference on Contamination of Soils and underground water and Bioremediation, September 24-27, 2004. Nankai University, Tianjin, People's Republic China. (OP)
106. Li, J., and J.-D. Gu (2004) Degradation of dimethyl isophthalate by bacteria isolated from wetland sediment. 6th International Wetland Conference, October 26-30, Avignon, France. (P)
107. Zhao, Z.-Y., Y.-Z. Fan, P.-P. Shen, H.Y. Lai, and J.-D. Gu (2004) Distribution and sources of polycyclic aromatic hydrocarbons in sediments of the Mai Po Marshes Wetland of Hong Kong. 6th International Wetland Conference, October 26-30, Avignon, France. (P)
108. Gu, J.-D. (2004) Degradability of herbicides Atrazine, Cyanazine and Dicamba under methanogenic conditions using sediment from the Pearl River of Southern China and Hong Kong. 4th International Symposium of the Environmental Significance of Mineral-Organic Component-Microorganism Interactions in terrestrial Systems, September 20-23, 2004. Wuhan, People's Republic of China. (IP)
109. Gu, J.-D., M.Y. Lai, and Z. Zhao (2004) Mineralogical composition and fractionation of heavy metals of sediments from Mai Po Nature Reserve of Hong Kong. 4th International Symposium of the Environmental Significance of Mineral-Organic Component-Microorganism Interactions in terrestrial Systems, September 20-23, 2004. Wuhan, People's Republic of China. (P)
110. Gu, J.-D., J. Li, and Y. Wang (2004) Degradation of the endocrine-disrupting dimethyl phthalate ester isomers by aerobic microorganisms isolated from mangrove sediment. IWA 4th World Water Congress. September 20-24, 2004. Marrakesh, Morocco. (IP)
111. Gu, J.-D, X. Xu, and H. Li (2004) Detoxification of Cr(VI) through reduction by ascorbic acid. IWA 4th World Water Congress. September 20-24, 2004. Marrakesh, Morocco. (P)
112. Gu, J.-D., W. Qiu, A. Koenig and Y. Fan (2004) Autotrophic denitrification by the bacterium *Thiobacillus denitrificans* strain MP for removal of high concentrations of NO₃⁻ from eutrophied water body. 3rd International Nitrogen Conference, October 12-16, 2004, Nanjing, P.R. China. (IP)
113. Gu, J.-D., J.G. Gu, and W.B. McGill (2004) Quantification of dinitrogen fixation in the legume faba bean (*Vicia faba* L.) grown on Gray Luvisol using N-15 dilution technique and reference crops barley (*Hordeum vulgare* L.) and canola (*Brassica napus* L.). 3rd International Nitrogen Conference, October 12-16, 2004, Nanjing, P.R. China. (IP)
114. Gu, J.-D. (2004) Microbial degradation of *N*-heterocyclic aromatic compounds under aerobic and anaerobic condition. 7th National Symposium on Environmental Microbiology, October 23-25, 2004. Shanghai, People's Republic of China. (Plenary speaker)
115. Gu, J.-D. (2004) Degradation of endocrine-disrupting phthalates: microorganisms involved and biochemical pathways. International Conference on Environmental and Public Health Management: Persistent Toxic Substances, November 17-19, 2004. Baptist University of Hong Kong, Hong Kong. (IP)

116. Yip, C.W., and J.-D. Gu (2004) Aerobic biodegradation of heterocyclic aromatic indole by bacteria isolated from Mai Po sediment. International Conference on Environmental and Public Health Management: Persistent Toxic Substances, November 17-19, 2004. Baptist University of Hong Kong, Hong Kong. (P)
117. Lai, M.Y., and J.-D. Gu (2004) Contamination of heavy metals in sediments and benthic infauna. International Conference on Environmental and Public Health Management: Persistent Toxic Substances, November 17-19, 2004. Baptist University of Hong Kong, Hong Kong. (P)
118. Gu, J.-D., Y. Wang, and P.C. Leung (2004) A cryptic plasmid from *Vibrio cholerae* MP-1 isolated from Mai Po Nature Reserve and other plasmids from both pristine and polluted marine environments. Conference on the Microbiology of the Tropical Seas, December 13-15, 2004. Dona Paula, Goa, India (Plenary speaker)
119. Gu, J.-D., and M.Y. Lai (2005) Mineralogical composition and fractionation of heavy metals of sediments from Mai Po Nature Reserve of Hong Kong. Asia Pacific Symposium on Environmental Geochemistry, January 18-21, 2005. Perth, Australia. (OP)
120. Gu, J.-D., and R. Mitchell (2005) Microbiological deterioration and degradation of candidate polymeric materials for space application. BioMicroWorld 2005 - International Conference on Environmental, Industrial and Applied Microbiology, March 14-18, 2005. Badajoz, Spain. (OP)
121. Wang, Y., P.C. Leung, and J.-D. Gu (2005) A cryptic plasmid from *Vibrio cholerae* mp-1 isolated from Mai Po Nature Reserve of Hong Kong. BioMicroWorld 2005 - International Conference on Environmental, Industrial and Applied Microbiology, March 14-18, 2005. Badajoz, Spain. (P)
122. Gu, J.-D., and R. Mitchell (2005) Microbial colonization and growth on polymeric materials for space application, detection methods and mechanisms of biodeterioration. 3rd International Workshop on Space Microbiology, May 22-25, 2005. Mol, Belgium. (P)
123. Gu, J.-D., J. Li, and Y. Wang (2005) Degradation of phthalate ester isomers by environmental bacteria and the biochemical pathway. SETAC Europe 15th Annual Meeting: The Reason d'Être of Environmental Toxicology and Chemistry, May 22-26, 2005. Lille, France. (P)
124. Gu, J.-D. (2005) What is new on the degradation of emerging environmental pollutants and the microorganisms. 8th National Symposium on Environmental Microbiology, August 14-17, 2005. Harbin, P.R. China. (IP)
125. Gu, J.-D., R. Zhang, and Y. Wang (2005) Novel plasmids in *Vibrio* species isolated from intertidal environment and resistance to antibiotics and mercury. 8th National Symposium on Environmental Microbiology, August 14-17, 2005. Harbin, P.R. China. (OP)
126. Li, J., and J.-D. Gu (2005) Degradation of endocrine-disrupting phthalates: microorganisms isolated from mangrove and the biochemical pathways. 10th International Symposium on the Interactions between Sediments and Water, August 28-September 2, 2005. Bled, Slovenia. (OP)
127. Shen, P., H. Zhou, Y. Yan, J.-D. Gu, and J. Lai (2005) Ecological pollution stress on benthic infauna macroinfaunal community at the Mai Po and Inner Deep Bay Ramsar Site in Hong Kong. 10th International Symposium on the Interactions between Sediments and Water, August 28-September 2, 2005. Bled, Slovenia. (OP)
128. Lai, M.Y., and J.-D. Gu (2005) Mineralogical analysis and fractionation of heavy metals in sediments of Mai Po Nature Reserve. 10th International Symposium on the Interactions between Sediments and Water, August 28-September 2, 2005. Bled, Slovenia. (P)
129. J.-D. Gu, Z. Zhao, H. Y. Lai, and P. Shen (2005) Ecological quality of water and sediment at Mai Po Nature Reserve of Hong Kong. 10th International Symposium on the Interactions between Sediments and Water, August 28-September 2, 2005. Bled, Slovenia. (OP)
130. J.-D. Gu, and J. Li (2005) Degradation of the plasticizer dimethyl isophthalate by bacteria isolated from wetland sediment and the biochemical pathway. International Symposium on Wetland Pollutant Dynamics and Control, September 4-9, 2005. Ghent, Belgium. (OP)
131. Zhao, Z., J.-D. Gu, J. Lai (2005) Distribution and sources of polycyclic aromatic hydrocarbons in sediments of Mai Po Wetland and Marshes of Hong Kong. International Symposium on Wetland Pollutant Dynamics and Control, September 4-9, 2005. Ghent, Belgium. (P)
132. Shen, P., J.-D. Gu, J. Lai (2005) Benthic infaunal community of intertidal mudflat at the Mai Po and Inner Deep Bay Ramsar Site of Hong Kong. International Symposium on Wetland Pollutant Dynamics and Control, September 4-9, 2005. Ghent, Belgium. (OP)
133. Gu, J.-D., Z. Zhao, and H. Y. Lai (2005) Ecological conditions of a protected mangrove and wetland in Hong Kong. International Symposium on Greenhouse Gas and Carbon Balances in Mangrove Coastal Ecosystems, October 3-5, 2005. Tsukuba, Ibaraki, Japan (OP)
134. Gu, J.-D., R. Zhang, and Y. Wang (2005) Characterization of cryptic plasmids from environmental *Vibrio* species isolated from coastal marine environments. The Biology of *Vibrios*: Biodiversity, Genomics, Disease/Epidemiology, Ecology, and Applications. November 7-8, 2005. Ghent, Belgium (P)

135. Gu, J.-D. (2005) Abundance of environmental *Vibrio* species in marine environment and characterization of cryptic plasmids. Microbiology in Food and Water, Analytical Technique and Applications in Macau. December 1-2, 2005. Macau, P.R. China (IP)
136. Gu, J.-D. (2005) Characterization of cryptic plasmids from environmental *Vibrio* species isolated from marine environments. 4th International Symposium on Genomics, Bioinformatics, Biotechnology and Economic Development in Karachi, Pakistan. December 4-8, 2005. Karachi, Pakistan (IP).
137. Gu, J.-D., H.Y. Lai, and K.H. Cheung (2006) Reduction of hexavalent chromium by *Bacillus megaterium* TKW3. Corrosion/2006. March 12-16, 2006. San Diego, California, USA (OP).
138. Gu, J.-D., and B. Xie (2006) Protein profiles of extracellular polymeric substances and activated sludge in a membrane biological reactor by 2-dimensional electrophoresis. IWA Specialized Conference - Sustainable Sludge Management: State of the Art, Challenges and Perspectives. May 28-June 2, 2006. Moscow, Russia (P).
139. Gu, J.-D., and P. Shen (2006) Infaunal benthic community of intertidal mudflat at Mai Po and Inner Deep Bay Ramsar Site of Hong Kong. International Conference on Catchments to Coast, July 9 - 14, 2006. Cairns, Queensland, Australia. (OP)
140. Gu, J.-D., and B. Yin (2006) Degradability of *N*-heterocyclic aromatic compound 3-methylindole by *Pseudomonas aeruginosa* Gs isolated from mangrove sediment. International Conference on Catchments to Coast, July 9 - 14, 2006. Cairns, Queensland, Australia. (OP)
141. Gu, J.-D., and J. Li (2006) Degradation of the plasticizer dimethyl phthalate diesters by bacteria: biochemical pathways and immobilization. Water2006, August 1-4, 2006. Auckland, New Zealand. (OP)
142. Gu, J.-D., and L. Chan (2006) Theca-specific antisera for cell surface proteins (csps) of the toxic dinoflagellate *Alexandrium affine*. 11th International Society of Microbial Ecology (ISME11) Meeting, August 20 - 25, 2006. Vienna, Austria. (OP)
143. Chiu, E., L. Chan, and J.-D. Gu (2006) Comparative study of the paralytic shellfish toxin-producing dinoflagellates *Alexandrium tamarebse* and *Gymnodinium catenatum*, by 2-DE and mass spectrometry. 12th International Conference on Harmful Algae, September 4 - 8, 2006. Copenhagen, Denmark. (OP)
144. Gu, J.-D., R. Zhang, and Y. Wang (2006) Ecological diversity of plasmids from environmental *Vibrio* species isolated from coastal marine environments. The 4th Okazaki Biology Conference: Terra Microbiology 2. September 10-15, 2006, Okazaki, Japan. (P)
145. Xie, B., J.-D. Gu, and X.-Y. Li (2006) Protein profiles of extracellular polymeric substances and activated sludge in a membrane biological reactor by 2-dimensional gel electrophoresis. Leading-edge Strategies and Technologies for Sustainable Urban Water Management. September 16-20, 2006. Hong Kong University of Science and Technology, Hong Kong (OP)
146. Cheng, S.-P., D. Zhao, C. Zhu, S. Sun, H. Yu, L. Zhang, W. Pan, X. Zhang, H. Yu, and J.-D. Gu (2006) Toxicity of pharmaceutical wastewater on male reproductive system of *Mus musculus*. International Workshop on Environmental Health and Pollution Control. October 22-25, 2006. Nanjing, P.R. China (OP)
147. Shen, P.P., and J.-D. Gu (2006) Biodiversity and dynamics of polychaetes in coastal intertidal mudflat of Hong Kong. International Conference on Environmental and Public Health Management: Aquaculture and Environment. December 7-9, 2006. Hong Kong Baptist University, Hong Kong (P)
148. Pan, L., and J.-D. Gu (2006) Diversity and function of plasmids in *Vibrio* species isolated from coastal environments. International Conference on Environmental and Public Health Management: Aquaculture and Environment. December 7-9, 2006. Hong Kong Baptist University, Hong Kong (P)
149. Cheung, J.K.H., R.K.W. Lam, M.Y. Shi, and J.-D. Gu (2006) Environmental fate of the endocrine disruptors, dimethyl phthalate ester (DMPE), under anoxic conditions. International Conference on Environmental and Public Health Management: Aquaculture and Environment. December 7-9, 2006. Hong Kong Baptist University, Hong Kong (P)
150. Liu, Y.S., and J.-D. Gu (2006) Enantioselective degradation of chiral phenylcarboxylates, intermediates of linear alkylbenzene metabolism. International Conference on Environmental and Public Health Management: Aquaculture and Environment. December 7-9, 2006. Hong Kong Baptist University, Hong Kong (P)
151. Gu, J.-D., and S.-F. Yen (2007) Susceptibility of polymeric materials used in art works to biodeterioration and biodegradation by microorganisms. Conservation Science 2007. May 10-11, 2007. Milan, Italy. (O)
152. Gu, J.-D., R.F. Zhang, and L. Pan (2007) Plasmid Diversity of Environmental *Vibrio* Species Isolated from Coastal Marine Environment in Hong Kong. 107th General Meeting of American Society for Microbiology. May 21 - 25, 2007. Toronto, Canada (P)
153. Shen, P.P., H. Zhou, Y. Yan, J.-D. Gu, and J. Lai (2007) Ecological pollution stress on benthic infauna macroinfaunal community at the Mai Po and Inner Deep Bay Ramsar site in Hong Kong. Ecological Complexity and Sustainability. May 22-26, 2007. Beijing, P.R. China (OP)
154. Yu, X.Z., and J.-D. Gu (2007) Metabolic responses of weeping willows to selenate and selenite. The 2nd International Symposium on Trace Elements and Health. June 18-20, 2007. Helsinki, Finland (P)

155. Yu, X.Z., and J.-D. Gu (2007) Hexavalent chromium induced stress and metabolic responses in hybrid willows. Contamination Cleanup 07. June 24-27, 2007. Adelaide, Australia (OP)
156. Gu, J.-D., and Y. Wang (2007) Degradation of dimethyl phthalate esters by bacteria isolated from deep ocean sediment. The 3rd International Conference on Enzymes in the Environment: Activity, Ecology and Applications. July 15-19, 2007. Viterbo, Italy (P)
157. Zhao, Z.-Y., J.-D. Gu, J. Lai (2007) Distribution and sources of polycyclic aromatic hydrocarbons in sediments of Mai Po Wetland and Marshes of Hong Kong. 2nd International Symposium on Wetland Pollutant Dynamics and Control, September 16-22, 2005. Tartu, Estonia. (OP)
158. Shen, P., J.-D. Gu, and J. Lai (2007) Ecological pollution stress on benthic infauna macroinfaunal community at the Mai Po and Inner Deep Bay Ramsar Site in Hong Kong. 2nd International Symposium on Wetland Pollutant Dynamics and Control, September 16-22, 2005. Tartu, Estonia. (P)
159. Lai, M.Y., and J.-D. Gu (2007) Fractionation of heavy metals and mineralogical analysis of sediments from Mai Po Nature Reserve. 2nd International Symposium on Wetland Pollutant Dynamics and Control, September 16-22, 2005. Tartu, Estonia. (P)
160. Shen, P.P., R.F Zhang, and J.-D. Gu (2007) Complete sequence of plasmid pMP1 from the marine *Vibrio vulnificus* and location of its replication origin. The 2nd International Conference on Environmental, Industrial and Applied Microbiology (BioMicroWorld2007), November 28-December 1, 2007. Seville, Spain. (OP)
161. Pan, L., X.Z. Yu, and J.-D. Gu (2007) Population of *Vibrio* species and molecular and biochemical differentiation of *Vibrio* and *Shewanella* isolates from the Mai Po Nature Reserve of Hong Kong. The 2nd International Conference on Environmental, Industrial and Applied Microbiology (BioMicroWorld2007), November 28-December 1, 2007. Seville, Spain. (P)
162. Pan, L., and J.-D. Gu (2007) Oxidation of thiosulfate to tetrathionate by *Achromobacter xylosoxidans* AD1 isolated from marine sediment under autotrophic and heterotrophic conditions. The 2nd International Conference on Environmental, Industrial and Applied Microbiology (BioMicroWorld2007), November 28-December 1, 2007. Seville, Spain. (P)
163. Gu, J.-D. (2008) Effects of microbes on carbon fiber structural designs. IATA Aviation Fuel Forum, May 20-22, 2008. Athens, Greece. (IP)
164. Gu, J.-D. (2008) Environmentally acceptable biofuels and water - microbiological issues. IATA Aviation Fuel Forum, May 20-22, 2008. Athens, Greece. (IP)
165. Gu, J.-D., and Y. Wang (2008) Degradation of the endocrine-disrupting dimethyl phthalate ester by *Sphingomonas yanoikuyae* DOS01 isolated from deep-ocean sediment of South China Sea. The 3rd International Symposium on Environment, May 22-25, 2008. Athens, Greece. (OP)
166. Gu, J.-D., and X. Han (2009) Oxidation of As(III) in the presence of Fe(II) by on B-MnO₂ under acidic conditions. Final Workshop on Nanoscale Electrochemical and Bioprocesses (Corrosion) at Solid-aqueous Interfaces of Industrial Materials COST D33, May 13-15, 2009. Cluj-Napoka, Romania. (IP)
167. Li, M., Y. Hong, J.-D. Gu (2009) Evaluation of specificity and optimization of PCR primer sets for detecting anammox bacteria in marine sediment (N-296). 109th General Meeting of American Society for Microbiology. May 17 - 21, 2009. Philadelphia, USA (P)
168. Cao, H.-L., M. Li, Y.-G. Hong, and J.-D. Gu (2009) Relationship between diversity and abundance of ammonia-oxidizing archaea (AOA) and bacteria (AOB) and environmental parameters in polluted mangrove sediment of Hong Kong. The 1st International Conference on Nitrification. July 5-11, 2009, University of Louisville, Kentucky (P)
169. Hong, Y.-G., H.-L. Cao, M. Li, and J.-D. Gu (2009) 16S rRNA and hzo gene analyses reveal a high diversity of Candidatus Scalindua anammox bacteria in subseafloor sediments from the South China Sea. The 1st International Conference on Nitrification. July 5-11, 2009, University of Louisville, Kentucky (P)
170. Lee, L., J.J. Jiao, Y. Wang, and J.-D. Gu (2009) Molecular analysis of nitrogen transformation microorganisms at a site with very high concentration of inorganic nitrogen. The 1st International Conference on Nitrification. July 5-11, 2009, University of Louisville, Kentucky (P)
171. Li, M., Y.-G. Hong, H.-L. Cao, and J.-D. Gu (2009) Phylogenetic diversity, spatial distribution and abundances of anammox bacteria in mangrove sediment based on analysis of 16S rRNA and hzo genes. The 1st International Conference on Nitrification. July 5-11, 2009, University of Louisville, Kentucky (P)
172. Wang, J., and J.-D. Gu (2009) Anammox in paddy sediments with different duration of cultivation in Northeast China. The 1st International Conference on Nitrification. July 5-11, 2009, University of Louisville, Kentucky (P)
173. Gu, J.-D., and Y. Liu (2009) Enantioselective degradation and chiral inversion of linear alkylbenzene by bacteria. Interdisciplinary Symposium on Biological Responses to Chemical Contaminants: from Molecular to Community Levels. September 2-4, 2009, Aveiro, Portugal. (IP)

174. Gu, J.-D. (2010) Plenary Keynote lecture: Specificity and efficiency in molecular detection of anammox bacteria using 16S rRNA and *hzo* genes. 13th Mainland-Taiwan Environmental Protection Conference, Chongqing, PR China, April 23–25, 2010. (IP)
175. Li, M., H.-L. Cao, Y.-G. Hong, and J.-D. Gu (2010) Quantitative detection of ammonia-oxidizing archaea (AOA) and ammonia-oxidizing bacteria (AOB) in mangrove sediments (N-1797). 110th General Meeting of American Society for Microbiology, San Diego, USA, May 23 - 27, 2009. (P)
176. Gu, J.-D., X. Han, and Y. Li (2010) Oxidation of As(III) by β -MnO₂ in the presence of Fe(II) under acidic conditions. 20th General Meeting of the International Mineralogical Association. Budapest, Hungary, August 21-27, 2010. (OP)
177. Gu, J.-D. (2011) Microbial attack on polymeric and carbon fiber-reinforced materials and sensitive testing methods. Materials Research Society Spring Meeting, KK: Microbial Life on Surfaces - Biofilm-Material Interactions. San Francisco, California, USA, April 5-9, 2011 (IP)
178. Gu, J.-D. (2011) Anaerobic ammonium-oxidizing (Anammox) bacteria as an environmental indicator along a pollution gradient from the Pearl River Delta to the South China Sea by analysis of 16S rRNA and hydrazine oxidoreductase (*hzo*) genes. The 1st International Conference on Geomicrobial Ecotoxicology, Wuhan, PR China, May 30–June 2, 2011
179. Gu, J.-D. (2011) Pandora's -omics box for microbial ecologists: research challenges and dilemmas in the -omics era. The 4th International Conference on Enzymes in the Environment: Activity, Ecology & Applications, Bad Nauheim, Germany, July 17-21, 2011 (IP)
180. Gu, J.-D. (2011) New anammox bacteria recovered from oil reservoirs and the south china sea by analysis of 16s rRNA and hydrazine oxidoreductase encoding genes. 2011 International Conference on Soil Omics-Nanjing, Nanjing, PR China, November 19-23, 2011 (IP)
181. Gu, J.-D. (2011) New anammox bacteria discovered from oil reservoirs and the South China Sea by analysis of 16S rRNA, hydrazine oxidoreductase and nitrite reductase encoding genes. The 14th Symposium on Environmental Microbiology, Xiamen, PR China, November 25-28, 2011 (IP)
182. Gu, J.-D., and Z.C. Zhou (2014) Characterization of Methanogens and methane-utilizing archaea and bacteria in South China Sea and a coastal wetland by PCR amplification of *mcrA* and *pmoA* Genes. 114th General Meeting of American Society for Microbiology, Boston, USA, May 17 - 20, 2014. (P)
183. Gu, J.-D., and P. Han (2014) A Newly Designed degenerate *pmoA* PCR primer for detection of nitrite-dependent anaerobic methane-oxidizing bacteria from different ecological niches. 114th General Meeting of American Society for Microbiology, Boston, USA, May 17 - 20, 2014. (P)
184. Gu, J.-D. (2014) Methods used in studying biodeterioration of polymeric materials. 16th International Biodeterioration and Biodegradation Symposium, Lodz, Poland, September 3-5, 2014. (IP)
185. Zhou, Z., and J.-D. Gu (2014) Characterization of Methanogens and Methane-utilizing Archaea and Bacteria in Sediments of the Northern South China Sea by PCR Amplification of *mcrA* and *pmoA* Genes. 9th International Symposium on Subsurface microbiology, Pacific Grove, California, USA, October 5-10, 2014. (P)
186. Gu, J.-D., and Yoko Katayama (2016) Involvement of microbes in cultural heritage protection at Angkor Thom, Cambodia. The 44th Annual American Institute of Conservation Meeting/The 42 Canadian Association of Conservation Conference, Montreal, Canada, May 15-20, 2016. (IP)
187. Gu, J.-D., and Yoko Katayama (2017) An innovative sampling technique for spatial distribution analysis of microorganisms on Angkor temples in Cambodia. Technart 2017: Non-destructive and Microanalytical Techniques in Art and Cultural Heritage, Bilbao, Spain, May 2-7, 2017. (IP)
188. Gu, J.-D. (2017) Successful inoculation of anammox bacteria in traditional full-scale WWTPs for N removal. The 3rd International Conference on Environmental Pollution and Health, Guangzhou, P.R. China, May 12-14, 2017 (IP)
189. Gu, J.-D. (2017) A new biotechnology for N removal full-scale WWTPs: anammox. The 2nd International Conference on Biomedical and Biological Engineering, Guilin, P.R. China, May 26-28, 2017 (IP)
190. Gu, J.-D., and Yoko Katayama (2017) A more than 10-year microbiological research on protection of Angkor monuments in Cambodia. 17th Triennial International Biodeterioration and Biodegradation Symposium, Manchester, United Kingdom, September 6-8, 2017. (IP)
191. Gu, J.-D. (2017) Microbial degradation of composite materials and plasticizers relevant to biofuel. 17th Triennial International Biodeterioration and Biodegradation Symposium, Manchester, United Kingdom, September 6-8, 2017. (IP)
192. Yang, Y., Z. Zhou, M. Li, J.-G. Lin, and J.-D. Gu (2017) Metagenomics and transcriptomics analysis of active anammox bacteria in full-scale landfill leachate wastewater treatment plants. The 4th International Environmental Engineering Conference & Annual Meeting of the Korean Society of Environmental Engineers (IEEC 2017). Jeju, South Korea (November 15–17, 2017) (IP)

193. Gu, J.-D., and Y. Katayama (2018) Evaluation of microbial colonization and contribution to destruction of Angkor sandstone monuments in Cambodia for more than a decade. The 5th International Congress on Chemistry for Cultural Heritage (ChemCH2018). Bucharest, Romanian (July 3–7, 2018) (IP)
194. Yang, Y., M. Li, Y. Hong, J.-G. Lin, and J.-D. Gu (2018) Microbial community and N transforming processes in full-scale WWTPs showing active anammox bacteria by DNA and RNA illumina sequencing and N-15 isotope dilution. The 4th International Water Industry Conference - New Paradigm of Water Industry. Daegu, South Korea (September 11–14, 2018) (IP)
195. Gu, J.-D., and Y. Katayama (2018) Biogeochemical microbial processes involved for the damage of Angkor sandstone monuments in Cambodia. The 3rd European Conference on Biodeterioration of Stone Monuments (ECBSM2018). Cergy-Pontoise, France (November 8–9, 2018) (IP)
196. Gu, J.-D., and L. Luo (2019) Biochar on extracellular enzymes, microbes and organic matter dynamics in sediments. The 13th Dahlia Greidinger Memorial Symposium 2019: Sustainable Primary Food Production Emphasizing soil-water and Environmental Conservation. Technion, Haifa, Israel, March 4–6, 2019 (OP)
197. Gu, J.-D., and Y. Katayama (2019) High Accumulation of Nitrate and the Microorganisms Involved on Angkor Sandstone Monuments in Cambodia. EGU2019. Vienna, Austria (OP)
198. Gu, J.-D. (2019) Discovery of active indigenous anammox bacteria in full-scale piggery wastewater treatment plants. Asian Society for Microbial Ecology Meeting 2019, Tunghai University, Taichung, Taiwan, May 11–13, 2019 (OP)
199. Gu, J.-D., and Y. Katayama (2019) Protection of Angkor monuments/temples from biodeterioration since starting of the conservation. 2019 International Symposium on Conservation and Restoration of Cultural Heritage. Shanghai Institute of Visual Arts, Shanghai, P.R. China, June 13–14, 2019 (IP)
200. Gu, J.-D. (2019) Microbial Ecotoxicology: Ammonia/Ammonium-oxidizing Bacteria and Archaea for Environmental Forensic Applications. The 5th International Conference on Environmental Pollution and Health, Harbin, P.R. China, August 3-6, 2019 (IP)
201. Gu, J.-D. (2019) Microbial Ecotoxicology: Ammonia/Ammonium-oxidizing Bacteria and Archaea for Environmental Forensic Applications. The 5th International Conference on Environmental Pollution and Health, Harbin, P.R. China, August 3-6, 2019 (IP)
202. Gu, J.-D., and Y. Katayama (2021) Protection of Angkor Monuments in Cambodia from Natural Microbial Colonization and Destruction for More Than a Decade. The 12th Baltic States Triennial Conservators' Meeting - Research, Dilemmas and Solution. Vilnius, Lithuania, May 27–30, 2020 (IP)
203. Gu, J.-D. (2021) International Society for Subsurface Microbiology Conference. Utrecht, The Netherlands, June 14–19, 2020.
204. Gu, J.-D. (2021) The 18th Triennial Conference of International Biodeterioration and Biodegradation Society. Bozeman, Montana, USA, September 7–10, 2020.

Invited Speakers

- College of Materials Science and Engineering, Beijing Institute of Astronautics and Aeronautics (1998)
- School of the Environment, Nanjing University (2000)
- Chinese Environmental Microbiology Meeting in Nanjing (2001)
- Key Laboratory of Pollution Control and Modeling, Tsinghua University (2002)
- Nanjing Agricultural University in Nanjing (May 2003)
- Chinese Environmental Microbiology Meeting in Chengdu (October 2003)
- Tropical Marine Research Institute, National University of Singapore (January 2004)
- International Workshop on Marine Pollution and Ecotoxicology, National Institute of Oceanography, Goa, India (February 2004)
- Zhejiang University in Hangzhou (April 2004)
- The 1st China-Germany Symposium on Environmental Microbiology, Beijing (August 2004)
- The 7th Symposium on Environmental Microbiology in Shanghai (October 2004)
- Conference on Microbiology of the Tropical Seas, National Institute of Oceanography, Goa, India (December 13-15, 2004)
- Swiss Federal Institute for Water Resources and Water Pollution Control (EAWAG), Dübendorf, Switzerland (May 18-19, 2005)

- Swiss Federal Laboratories for Materials Testing and research (EMPA), St. Gallen, Switzerland (May 20, 2005)
- The 8th Symposium on Environmental Microbiology in Harbin (August 14-17, 2005)
- Microbiology in Food and Water, Analytical Technique and Applications in Macau (December 1-2, 2005)
- The 4th International Symposium on Genomics, Bioinformatics, Biotechnology and Economic Development in Karachi, Pakistan (December 4-8, 2005)
- International Conference on Environmental Health and Pollution Control, Nanjing, P.R. China (October 22 - 25, 2006)
- International Aviation and Transportation Association (IATA): Aviation Fuels Forum. Athens, Greece (May 20-22, 2008)
- Kadoorie Institute, The University of Hong Kong (January 22, 2009)
- European Union Research Project COST D33 Nanoscale Electrochemical and Bioprocesses (Corrosion) at Solid aqueous Interfaces of Industrial Materials. Cluj-Napoca, Romania (May 13-15, 2009)
- International Symposium on Biological Responses to Chemical Contaminants: from Molecular to Community Level. Aveiro, Portugal (September 2-4, 2009)
- BSR Forum on Water Quality and Pollution in the region. Hong Kong, PR China (January 22, 2010)
- School of Life Sciences, Zhejiang University. Hangzhou, PR China (April 1-4, 2010)
- Plenary Keynote lecture: 13th Mainland-Taiwan Environmental Protection Conference, Chongqing, PR China, 23–25 April, 2010.
- International Conference on Enzymes & Biocatalysis-2010 (SEB-2010). Shanghai, China (April 22-24, 2010)
- College of Environmental Engineering and Sciences, East China University of Science and Technology, Shanghai, PR China (May 9-11, 2010)
- School of Environmental Engineering and Sciences, Hunan Agricultural University, Changsha, PR China (May 13-15, 2010)
- Wuhan Botanical Garden, Chinese Academy of Sciences, Wuhan, PR China (July 12-16, 2010)
- School of Biological Sciences, Lanzhou University, PR China (August 3-9, 2010)
- Sino-Forest Applied Research Centre for Pearl River Delta Environment (ARCPE) - Public Environmental Lectures. Hong Kong, China (July, 2010)
- 2010 Taipei International Conference on Investigation, Remediation and Management of Soil and Groundwater Contaminated Sites - Invited Speaker. Taipei, Taiwan (October 24-29, 2010)
- Materials Research Society Meeting, Microbial Life on Surfaces: Biofilm-Material Interactions- Invited Speaker, San Francisco, USA (April 25-29, 2011)
- Taiwan National Shiao Tung University, Hsinchu, Taiwan (May, 2011)
- The 1st International Conference on Geomicrobial Ecotoxicology - Invited Speaker, Wuhan, P.R. China, May 30–June 2, 2011.
- The 4th International Conference on Enzymes in the Environment, Methods in Environmental Enzymology - Invited Speaker, Bad Nauheim, Germany, 17–21 July, 2011.
- Taiwan National Shiao Tung University, Hsinchu, Taiwan (May, 2012)
- The 14th Symposium on Environmental Microbiology in Xiamen (November 25-28, 2011)
- Environmental Microbiology Symposium in Taichung, Taiwan (September 13-15, 2012)
- International Biotechnology Symposium in Daegu, Korea (September 16-21, 2012)
- China-USA Forum on Environmental Health and pollution Control, Nanjing, P.R. China (September 21-22, 2012)
- International Water Association (IWA) Conference on Nutrient Removal and Recovery in Harbin, PR China (September 23-25, 2012)
- International Symposium on Microbial Biodeterioration of Cultural Property: Recent Topics on the Investigation and Countermeasures, Tokyo National Museum, Tokyo, Japan (December 5–7, 2012)
- The XVI International Biodeterioration and Biodegradation Symposium, Lodz, Poland (September 3–5, 2014)

- The XVIIth International Environmental Biodeterioration and Biodegradation Symposium (IBBS17): Preservation and Protection of Materials. Manchester, U.K. (September 6–8, 2017)
- The 4th International Environmental Engineering Conference & Annual Meeting of the Korean Society of Environmental Engineers (IEEC 2017). Jeju, South Korea (November 15–17, 2017)
- The 4th International Water Industry Conference - New Paradigm of Water Industry. Daegu, South Korea (September 11–14, 2018)
- The 6th International Congress on Chemistry for Cultural Heritage. Bucharest, Romanian (July 3–7, 2018)
- The International Biodeterioration & Biodegradation Symposium. Coimbra, Portugal (September 5–7, 2018)
- The 3rd European Conference on Biodeterioration of Stone Monuments (ECBSM2018). Cergy-Pontoise, France (November 8–9, 2018)
- The 5th International Water Industry Conference - New Paradigm of Water Industry. Daegu, South Korea (September 3–7, 2019)
- Scientific Committee, Organizing Committee, and Program Committee, 2nd International Conference on Bioprocess for Sustainable Environment and Energy (ICBSEE-2020). Rourkela, Odisha, India (March 5–7, 2020)
- International Microorganism Day 2020, Federation of European Microbiological Societies. Online (September 17, 2020)
- The 4th European Conference on Biodeterioration of Stone Monuments (ECBSM2020). Cergy-Pontoise, France (November 8–9, 2020)
- International Conference on Sustainable Biowaste Management 2021. Hong Kong Baptist University, Hong Kong SAR, P.R. China (April 12-15, 2021)
- The 12th Baltic States Triennial Conservators' Meeting - Research, Dilemmas and Solution. Vilnius, Lithuania (May 27–30, 2021)
- International Committee, International Society for Subsurface Microbiology (ISSM) 2021 Conference. Utrecht, The Netherlands (June 14-19, 2021)
- International Conference on Life at Oil, Gernebachtal, Germany (postponed to July 20-24, 2021)
- International Organizing Committee, The XVIIIth International Biodeterioration and Biodegradation Society Triennial Symposium (IBBS18): Microbes, Man and the Environment. Bozeman, Montana, USA (September 7–10, 2021)

Courses Teaching

- BIOL2606/3109 Environmental Microbiology
- BIOL2614/3110 Environmental Toxicology
- ENVS2008/3042 Pollution (*discontinued from 2016*)
- ENVS2009/4110 Environmental Remediation

Supervision Experience

- Post-doctoral research fellows: currently: Yongfeng Wang; completed: Yanzhen Fan, Yiguo Hong, Wensheng Lan, Hui Li, Xiangzhen Li, Ruifu Zhang, Zhenye Zhao, Hongli Hu, Xiaozhang Yu, Yongfeng Wang, Meng Li, Anwei Chen, Si Luo, Yuchun Yang
- Graduate students: currently 2 Ph.D. students
- M.Sc. (Environ. Manag.): 10+ graduated

Graduate Students Completed:

Name	Year	Title	Degree
Ma, Yee Ki	2002	Fractionation, release and adsorption of heavy metals in contaminated marine sediments	M.Phil.

Sin, Kai Wai	2003	Molecular biology, physiology and metal-resistance of the lignolytic enzyme system in a newly isolated basidiomycete from Hong Kong forest	M.Phil.
Wang, Yanling	2003	Isolation and characterization of environmental <i>Vibrio</i> species from Mai Po Nature Reserve	M.Phil.
Lai, Mei Yi	2004	Fractionation, mobilization and bioaccumulation of heavy metals and mineralogical characteristics of the Mai Po Inner Deep Bay mudflat	M.Phil.
Wang, Yingying	2004	Bacterial degradation of <i>ortho</i> -dimethyl phthalate ester and adaptation of <i>Escherichia coli</i> K12 to carbon-limited growth	M.Phil.
Wang, Yuping	2004	Degradation of dimethyl phthalate, dimethyl isophthalate and dimethyl terephthalate by bacteria from deep-ocean sediment	M.Phil.
Cheung, Ka Hong	2005	Chromate toxicity assessment and detoxification by bacteria from the environments	Ph.D.
Yip, Choi Yuen	2005	Degradation of <i>N</i> -heterocyclic aromatics indole and 2-methylindole and characterization of the bacteria involved from wetland sediment	M.Phil.
Xu, Xiangrong	2005	Reductive detoxification of hexavalent chromium and degradation of methyl tertiary butyl ether and phthalate esters	Ph.D.
Liu, Yishan	2007	Withdraw by her own will	Ph.D.
Chiu, Ellen	2007	Proteomic and physiological studies of paralytic shellfish toxin producing dinoflagellates <i>Alexandrium tamarense</i> and <i>Gymnodinium catenatum</i>	M.Phil.
Shen, Pingping	2008	Benthic infaunal community at an intertidal mudflat and molecular analysis of the dominant species <i>Neanthes glandicincta</i> (polychaeta)	Ph.D.
Yu, Xiao-Zhang	2008	Uptake, assimilation and toxicity of cyanogenic compounds in plants	Ph.D.
Pan, Li	2008	The <i>Vibronaceae</i> horizontal gene pool: plasmid replication and identification	Ph.D.
Hu, Hongli	2010	Morphological and molecular studies of selected Dothideomycetes	Ph.D.
Lee, Ka Kwok	2010	Molecular analysis of anammox, AOA and AOB in high nitrogen sediment and wetlands	M.Phil.
Wang, Jing	2011	Cultural independent analysis of anammox, AOA and AOB in paddy soils of Sanjiang Plain in Northeast China	Ph.D.
Li, Meng	2011	Diversity of anammox bacteria in coastal and ocean sediments and interactions among ammonia oxidizers and nitrite reducers	Ph.D.
Cao, Huiluo	2011	Molecular ecology of ammonia oxidizing archaea and bacteria	Ph.D.
Jiang, Xiwen	2012	Proteomics analysis of toxins-producing dinoflagellates and toxins-contaminated marine organisms	Ph.D.
Wang, Yongfeng	2012	Molecular analysis of ammonia oxidizing prokaryotes in mangrove wetlands and factors affecting their dynamics	Ph.D.
Ding, Shunping	2013	A survey of fungi associated with trees in subtropical Hong Kong	M.Phil.

Han, Ping	2013	Molecular detection methods and characterization of anammox bacteria from different niches	Ph.D.
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Li, Jun	2014	Biogenesis of banded iron formations interpreted by geobiological experiments	Ph.D.
Liu, Kun	2014	Geochemical and geomicrobiological studies of the ammonium-rich aquifer-aquitard system in the Pearl River Delta, China	Ph.D.
Xu, Jun	2014	The geobiology of the extremely enriched polymetallic sulfides in the black shale of the Lower Cambrian Niutitang formation, Southwestern China	Ph.D.
Deng, Ziqing	2015		Ph.D.
Chen, Jing	2015	Nitrite-dependent methane oxidation bacteria from ocean sediment and coastal wetland	Ph.D.
Lou, Ling	2015	Extracellular enzyme activities in coastal mangrove sediment	Ph.D.
Bai, Yinqi	2015	Diversity of potential cellulolytic organisms and cellulases	Ph.D.
Zhou, Zhichao	2016	Molecular detection and ecology of newly emerging bacterial and archaeal groups in coastal wetland and ocean sediments	Ph.D.
Meng, Han	2017	Molecular analysis of nitrogen cycling related microorganisms in forest soils and engineering systems	Ph.D.
Liu, Lirui	2018	Ammonia-oxidizing microorganisms in acidic forest soil and CRISPR-CAS of soil metagenomes	Ph.D.
Wu, Ruonan	2018	Ammonia-oxidizing microorganisms in acidic forest soil and CRISPR-CAS of soil metagenomes	Ph.D.
Yang, Yuchun	2019	Analysis of microbial nitrite-dependent oxidation of methane and ammonium in different niches by molecular techniques	Ph.D.
Liu, Xiaobo	2020	Archaeal ecology and archaea involved in biodeterioration of stone monuments	Ph.D.
Ding, Xinghua	2021		Ph.D.
Gao, Lin	2024		Ph.D.
Hu, Pengfei	2025		Ph.D.

Current Graduate Students:

Wang, Lin (2024) Ph.D.
Qian, Youfen (2025) Ph.D.
Wang, Angou (2024) Ph.D.

Consulting Reports

1. Assessment of microbial degradation of space station materials. (Part A). Prepared for and submitted to US NASA (June 1995).
2. Assessment of microbial degradation of space station materials. (Part B). Prepared for and submitted to US NASA (August 1995).
3. A preliminary analysis of potable air-conditioning units for microbial contamination. Prepared for and submitted to United Technologies and Carrier Co. (February 1996). 19 pages.
4. A comparative analysis of six air-conditioning coils for microbial contamination. Prepared for and submitted to United Technologies and Carrier Co. (March 1996). 25 pages.
5. Efficacy of Omicide® against a mixed fungal culture isolated from air-conditioning coils. Prepared for and submitted to United Technologies and Carrier Co. (March 1996). 25 pages.
6. Test of two water-soluble lubricants with a mixed fungal culture and efficacy of Omicide® against the fungal culture in a simulated study. Prepared for and submitted to United Technologies and Carrier Co. (September 1996). 22 pages.

7. Test of four biocides at different concentrations on growth of microorganisms for air-conditioning units. Prepared for and submitted to United Technologies and Carrier Co. (December 1996). 41 pages.
8. Microbial colonization of G.I.C. consolidant polymers and inhibition of microbial growth by biocides. Prepared for and submitted to Getty Conservation Institute (January 1997). 14 pages.
9. Preliminary analysis of microbial growth in the presence of Prelube 19 and the addition of a biocide TBTO. Prepared for and submitted to The Grignard Company. (July 1997). 27 pages.
10. Mai Po Inner Deep Bay Ramsar Site Baseline Ecological Monitoring Project 2001-2002 - Final Report. Tender Ref. No. AFD/SQ/28/01. Prepared for and submitted to Agriculture, Fisheries and Conservation Department of the Hong Kong Government. (June 2003) 266 pages.
11. Mai Po Inner Deep Bay Ramsar Site Baseline Ecological Monitoring Project 2001-2002 - Executive Summary. Tender Ref. No. AFD/SQ/28/01. Prepared for and submitted to Agriculture, Fisheries and Conservation Department of the Hong Kong Government. (June 2003) 18 pages.
12. Mai Po Inner Deep Bay Ramsar Site Baseline Ecological Monitoring Project 2002-2004 - Final Report. Tender Ref. No. AFD/SQ/57/02. Prepared for and submitted to Agriculture, Fisheries and Conservation Department of the Hong Kong Government. (June 2007) 276 pages.
13. Mai Po Inner Deep Bay Ramsar Site Baseline Ecological Monitoring Project 2003-2005 - Final Report. Tender Ref. No. AFCD/SQ/46/03. Prepared for and submitted to Agriculture, Fisheries and Conservation Department of the Hong Kong Government. (February 2005) 283 pages.
14. Mai Po Inner Deep Bay Ramsar Site Baseline Ecological Monitoring Project 2004-2006 - Final Report. Tender Ref. No. AFCD/SQ/59/04. Prepared for and submitted to Agriculture, Fisheries and Conservation Department of the Hong Kong Government. (April 2006) 328 pages.
15. Mai Po Inner Deep Bay Ramsar Site Baseline Ecological Monitoring Project 2005-2007 - Final Report. Tender Ref. No. AFCD/SQ/49/05. Prepared for and submitted to Agriculture, Fisheries and Conservation Department of the Hong Kong Government. (April 2007) 328 pages.
16. Mai Po Inner Deep Bay Ramsar Site Baseline Ecological Monitoring Project 2007-2008 - Final Report. Tender Ref. No. AFCD/SQ/89/06. Prepared for and submitted to Agriculture, Fisheries and Conservation Department of the Hong Kong Government. (April 2008) 309 pages.

Consulting Experience

- *Agriculture, Fisheries and Conservation Department of the Hong Kong SAR Government*: Mai Po Inner Deep Bay Ramsar Site Baseline Ecological Monitoring (2001 - 2008)
- *Spill-Treatment International Co.*: Environmental toxicology of encapsulation chemical for hydrocarbon spill treatment (2000 - 2002)
- *Macau Water Supply Co.*: Biological control of cyanobacterial pollution (2000 - 2002)
- *NASA/Marshall Flight Center*: Monitoring microbial biofilm formation in water recycling systems for the life support systems on NASA's International Space Station (1997 - 1999)
- *Grignard Company Inc.*: Microbial corrosion of suspension bridge cables and control (1997 - 1998)
- *Altran Materials Engineering, Inc.*: Microbial degradation of metals and polymeric materials and biofouling in industrial systems and their control (1995 - 1999)
- *Carrier Company*, and *United Technologies*: Microbial contamination of air-conditioning systems and control strategies (1996 - 1997)
- *W.R. Grace Company*: Biodeterioration of concrete by fungi (1995 - 1997)
- *NASA/Marshall Flight Center*: Assessment of biodeterioration of candidate polymeric materials for the International Space Station (1995 - 1996)
- *GeoCenter, Inc.*: Development of biosensor for detection of microbial contamination using laser and fiber technologies (1995 - 1996)
- *3M Company*: Development of methodologies for testing polymer biodegradability under thermophilic composting and anaerobic landfill (1991 - 1993)

Non-governmental Organizations

- BSR: Sustainable Water Group (2010 -)
- Asia Water project: Water and Health (2009 -)

Research Grants

- Biological control of the zebra mussel, *Dreissena polymorpha*. The U.S. Army Corps of Engineers (1995 - 1997) (Co-I)
- Microbiological deterioration of protective coatings. The U.S. Air Force (1997 - 2000) (Co-I)
- Bacterial reduction of toxic metals under sulfate-reducing and methanogenic conditions. CRCG HK\$120,000 (8/1999 - 7/2001) PI
- Biofilm characterization on mild steel by CLSM and microcalorimetry. Germany/Hong Kong Joint Research Scheme 1999-2000 HK\$29,950 (3/2000 - 2/2001) PI
- Fouling control biotechnologies using immobilized bacteria and bacterial metabolites. Innovative Technology Fund HK\$1,562,000 (4/2000 - 9/2003) PI
- Marine bacteria and bioactive compounds for antifouling applications. CRCG HK\$20,000 (7/2000 - 6/2001) PI
- Biological control of algal pollution in drinking water reservoirs. Macau Water Supply Co. HK\$100,000 (11/2000 - 7/2001) PI
- Sequestration of heavy metals by microorganisms and biomaterials. Higher Education Commission, The Ministry of Education, PR China. RMB100,000 (8/2000 - 7/2001) PI
- Biofilm corrosion of metals in polluted seawater. RGC 2000-2001 HK\$1,001,817 (9/2000 - 8/2003) Co-I
- Ecological monitoring of Mai Po Inner Deep Bay Ramsar site. Agriculture, Fisheries and Conservation Department (AFCD) of HK SAR Government AFD/SQ/28/01 HK\$1,285,685 (8/2001 - 8/2002) PI
- Marine bacteria for bioactive substances. RGC 2001-2004 HK\$3,500,000 (6/2001 - 5/2004) Co-I
- Ecological monitoring of Mai Po Inner Deep Bay Ramsar site. AFD/SQ/57/02 HK\$1,181,685 (12/2002 - 11/2003) PI
- Ecological monitoring of Mai Po Inner Deep Bay Ramsar site. AFCD/SQ/46/03 HK\$1,199,999 (1/2004 - 2/2005) PI
- Super genetic engineered bacterium and detoxification enzymes for bioremediation. Ministry of Science and Technology, PR China RMB¥3,500,000 (12/2003 - 12/2005) Co-I
- Super genetic engineered bacterium and detoxification enzymes for bioremediation. CRCG Matching Fund HK\$300,000 (12/2003 - 12/2005) PI
- Ecological monitoring of Mai Po Inner Deep Bay Ramsar site. AFCD/SQ/59/04 HK\$1,200,000 (12/2004 - 2/2006) PI
- Sludge granulation in biological wastewater treatment: characterization, mechanisms and technology. NSFC/RGC JRS HK\$800,000 (10/2004 - 9/2007) Co-I
- Ecological monitoring of Mai Po Inner Deep Bay Ramsar site. AFCD/SQ/49/05 HK\$1,200,000 (12/2005 - 3/2007) PI
- Ecological monitoring of Mai Po Inner Deep Bay Ramsar site. AFCD/SQ/89/06. HK\$1,200,000 (1/2007- 4/2008) PI
- Mechanism of the elevated algal proliferation in intertidal shrimp ponds (*gei wais*) of the Mai Po Nature Reserve. Environmental Conservation Fund HK\$149,544 (3/2007 - 2/2008) PI
- Water quality at fish culture zones. AFCD HK\$993,646 (4/2007- 3/2008) PI
- Uncovering proteins associated with toxin biosynthesis in dinoflagellates by proteomic approaches. RGC HKU 7655/07M HK\$872,642 (10/2007- 9/2010) PI
- Ecological monitoring of Mai Po Inner Deep Bay Ramsar site. AFCD/SQ/96/07. HK\$1,089,974.12 (1/2008- 3/2009) PI
- Water quality at fish culture zones AFCD/SQ/143/07. HK\$771,794.12 (4/2008- 3/2009) PI
- Water quality monitoring at fish ponds and fish culture zones. AFCD/SQ/145/08. HK\$1,013,529.41 (4/2009- 3/2010) PI

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- Analysis of fungi from wood samples. DEVB(SS)Q023/2010) HK\$49,411.76 (9/2010 - 12/2010) PI
 - Provision of services for laboratory testing and diagnosis of *Phellinus noxious*. DEVB(SS) Q058/2010. HK\$559,000 (3/2011 - 9/2011) PI
 - Anaerobic ammonium oxidizing bacteria as bio-indicator for the anthropogenic pollution and its history (ECF project 15/2011). Environmental Conservation Fund HK\$499,980 (12/2011 - 11/2013) PI
 - Biological methanogenesis of alkanes: thermodynamics and microbial ecology. RGC/NSFC HK\$ 1,035,000.00 (12/2011 - 11/2014) PI
 - Provision of Services for analysis of fungi on trees of Hong Kong. DEVB(SS) Q072/2010. HK\$1,009,000 (1/2012 - 12/2013) PI
 - Phylogenetic diversity and contribution of anaerobic ammonium oxidation (anammox) bacteria to nitrogen removal in mangrove wetland ecosystem. RGC GRF HKU701913P HK\$656,521 (1/2014-12/2016) PI
 - Provision of Services Provision of Services for Laboratory Identification and Confirmation of *Phellinus noxious* on Trees Through Laboratory Diagnosis Based on Culture and/or Molecular Techniques for the Development Bureau (Works Branch) (WQ/027/13). HK\$180,000 (10/2013 - 3/2014) PI
 - Next-generation wastewater technology with smart water reuse networks for a sustainable urban environment RGC (TRS T21-711/16-R). HK\$21,024,000 (11/2016 - 10/2021) Co-I
 - Mechanisms on nitrate accumulation on deteriorated Angkor sandstone monuments. RGC GRF No. 17302119 HK\$837,408 (8/2019 - 7/2022) PI (Changed to Co-I due to departure in 2020)
 - Biochemical characteristics and ecological function of a new anammox bacterial genus. NSFC No. 92051103 RMB820,000 (1/2021 - 12/2023) PI