

# CURRICULUM VITAE

**Hongqing Hu**

**Affiliation:** College of Resource and Environment, Huazhong Agricultural University

**Education:** 1997 **PhD.** Huazhong Agricultural University, China.

1991 **M. Sc.** Huazhong Agricultural University, China

1988 **B. Agric. Sci.** Huazhong Agricultural University, China

**Areas of Specialization** Soil Chemistry and Mineralogy. Plant Nutrition, Soil Fertility, Soil Environment

## Experiences

**July, 2011** Invited visitor and reporter Juelich Agrosphere Institute, German

**June, 2010 – July, 2010** Visiting scientist Texas A & M University, USA

May, 2005 and Oct, 2007 Visiting scientist Chungba National University, Korea

**Aug, 2001-Aug,2002** Researcher The University of Western Australia.

**Jan,2000-Aug,2000** Researcher University of Napoli, Italy.

**Nov, 2003-Now** Professor Huazhong Agricultural University

**Jan, 1999---2003** Associate Professor Huazhong Agricultural University

**July. 1991-1998** Assistant Professor, Lecturer Huazhong Agricultural University

## Editorial Members

**2004- now,** Journal of Plant Nutrition and Fertilizer

**2005-2012,** Journal of Food, Agriculture and Environment

**2009- now,** Agricultural Sciences

**2010- now,** Sustainable Development

**2012- now,** Journal of Environmental Sciences

**2015- now,** Journal of Agriculture, Food and Development (Editor-in-chief)

**2021- now,** Chinese Journal of Soil Sciences

## Awards and Honors

**2008-2019** best reviewers for the Journal of Agro-Environmental Science, Chinese Journal of Applied Ecology, Plant Nutrition and Fertilization, Journal of Journal of Integrative Agriculture, Journal of Environmental Sciences, China science papers online, etc.

**2005** Second Prize for the Natural Science, Ministry of Education

**2005** Third prize for the Natural Science, Hubei province

**2000** Third Prize for the Improvement of Science and Technology of Hubei Province

**1998** First prize for Research Papers, Scientific Committee of Hubei Province

**1996** Third Prize for Research Papers, Scientific Committee of Hubei Province

**1995** Second Prize for the Improvement of Science and Technology, Educational Commission of China

## Researches

*Direct application of phosphate rock on central China.* (PPI/PPIC, 1989-1999)

*The clay mineral association and surface properties of mountain soil.* (NSFC, 1988-1995)

*The interaction between phos. and organic acid on variable charge soils/minerals.* (NSFC, 1994-2001)

*The chemical and biochemical reactions in root-soil interface at nutrient stress.* (EU, 1995-2000)

*Soil surface chemistry of rhizosphere in variable and permanent charge soils. (NSFC, 2004-2006)*

*Microbial P constituents in acid soils by two phases (PEG/Dextran) techniques. (NSFC, 2003-2005)*

*Non-point source pollution of urban water body. (863 project, 2003-2005)*

*Heavy metals pollution of soils impacts on vegetables quality and minerals uptake. (MOE, 2003-2004)*

*Adsorption and remaining availability of Bt protein in different soil colloids and minerals (MOE, 2006-2008)*

*Rhizosphere effect of transgenic Bt crops in different soils and Bt protein remaining (MOE, 2006-2008)*

*Adsorption mechanism and affecting factors of Bt protein by soil and minerals (NSFC, 2007-2009)*

*Fixation of heavy metal from farmland by activated phosphate rocks (863 project, 2007-2010)*

*Soil changes after flooding-drying cycle in Three Gorges Reservoirs (MOST, 2010-2012)*

*Immobilization mechanism of heavy metals by activated phosphate rocks (MOE, 2010-2012)*

*Potassium sulfate and foliar fertilization effects on orange, cotton, rice (AMP Ltd, 2007-2010)*

*Interaction among heavy metal- phosphate- organic ligands and their environment significance (NSFC, 2011-2013)*

*Mg and K availability for rice and cotton in Hubei soils (AMP Ltd, 2011-2012)*

*Soil Cu phytoremediation through castor (*Ricinus communis* L.) and control by soil management (MOE, 2012-2013)*

*Chemical immobilization of heavy metal pollution and application technique (863 project, 2012-2015)*

*Controlling of water eutrophication in Xiaojiang drainage basin of Three Gorges Reservoirs (MOWR, 2014-2016)*

*Enhancement mechanism of Cu by castor (*Ricinus communis* L.) and affecting factors (NSFC, 2014-2017)*

*Immobilization and control of soil heavy metals Cd, Ni and As in southern China.(MOST, 2015-2019)*

*Tillage model for cultivation and high yield on ratooning rice. (MOST, 2016-2020)*

*Phyto- and chemical- remediation of Cd, As and Cu in Huangshi mining soils. (Hubei Geographic Survey, 2020-2022)*

*Workstation of landscape soil fertility and microorganism. (Wuhan Institute of Landscape Science, 2021-2023)*

*Soil fertility survey and organic-mineral fertilizer application in Xichuan county, Henan province. (Extending Centre of Agricultural technique, Xichuan county, Henan province, 2021-2023)*

*Effect of Acetyl-Thiazolidine-4-Carboxylic acid on maize growth and soil properties. (Zhengzhou Zheng's Chemical Industry Ltd. 2021-2022)*

*Influence and mechanism of organic acids on Cd immobilization by biochar in acid soil. (MOHRSS, 2021-2024)*

*Technique models and application of Quality Improvement for red-yellow soils in mid-lower stream of Yangze River (MOST, 2021-2025)*

*Mechanism of simultaneous remediation of Cd and As through microbiome in rice-rapeseed rotation system. (NSFC, 2022-2025)*

### **Dissertation Titles**

1. Effects of organic acids on adsorption - desorption of phosphate by acid soils and Al oxides.

**Ph D.** Dissertation, Huazhong Agricultural University, 1997

2. Study on the association and surface properties of clay minerals in Mufu mountain soil.

**M.Sc.** Dissertation, Huazhong Agricultural University. 1991

### Some Publications

1. **Hu Hongqing**, F.Xu, X.Li., 1992. Adsorption and desorption of phosphate on soil clay of Mufu mountain (Chinese). In the properties and Utilization of Soil Resources (eds. X.L.Li et al., ) PP 217-218 Beijing Agri. University Press, Beijing
2. **Hu Hongqing**, F.Xu and X.Li., 1993. Effects of Mufu mountain soil clay constituents on phosphate adsorption and desorption (Chinese). *J. Huazhong Agri. Univ.* 12(1):31-39
3. **Hu Hongqing**, F.Xu and X.Li., 1993. The clay mineral association and soil development of Mufu mountain vertical soil (Chinese). *J. Huazhong Agri. Univ.* 12(4):347-352
4. **Hu Hongqing**, F.Xu and X.Li., 1993 The characteristics of phosphate adsorption for Mufu mountain soil clays (Chinese). *Huazhong Agri. Univ.* 12(5):444-449
5. **Hu Hongqing**, J.Liu and F.Liu., 1993. Effects of application ground phosphate rock in acid soils on yield-increase of rape (Chinese). *Hubei Agri. Sci.* No.11:7-9
6. **Hu Hongqing**, F.Xu and X.Li., 1994. The oxides constituents of Mufu mountain soil clays (Chinese). *J. of Huazhong Agri. Uni.* 13(2):129-136
7. **Hu Hongqing**, X.Li, J.Liu et al., 1994. Effects of direct application of ground phosphate rock to red soil on yield increase and soil amelioration (Chinese). *Trop. & Subtrop. Soil Sci.* 3(4):219-225
8. **Hu Hongqing**, F.Xu, X.Li et al., 1994. Preliminary study of the effect of direct application phosphate rock on the content of Al in acid soil (Chinese). In *Current Research in Soil Science* (eds. M.G.Xu et al.,) PP 304-306. Chinese Agri. Tech. Press, Beijing
9. Huang, Q, **Hu Hongqing** and X.Li. 1994. Soil acidification and plant growth (Chinese). In *Current Research in Soil Science* (eds. M.G.Xu et al.,) PP 734-737, Chinese Agri. Tech. Press. Beijing
10. Li, X, Q.Huang, F.Xu and **Hu Hongqing**,. 1994. Forms of active aluminum in acid soil and aluminum phytotoxicity. *Trans. of 15th Inter. Congr. Soil Sci.* Vol5b,247-248
11. **Hu Hongqing**, Q.Huang, X.Li., 1995. The effects of different aluminum concentration on the secretion of amino acids and carbohydrates by wheat roots (Chinese). *Chinese J. of Soil Sci.* 26(1):15-17
12. **Hu Hongqing**, Q.Huang, X.Li., 1995. The diminishing effects of phosphate rock application on aluminum toxicity in acid soil (Chinese). *Scientia Agricultura Sinica*, 28(2):51-57
13. **Hu Hongqing**, X.Li, F.Xu, et al., 1995. A study on effects of phosphate rock applied to red soil (Chinese). *J. Huazhong Agri. Univ. Sup. Sum.* 20:19-24
14. **Hu Hongqing**, F.Xu, X.Li, et al., 1995. Effects of phosphate rock application in brown-red soil on yield-increase of rapeseed. (Chinese). *J. Huazhong Agri. Univ. Sup. Sum.* 20:64-69
15. Li, X. Q.Huang, **Hu Hongqing**, F.Xu., 1995. Forms of active aluminum in acid soil and aluminum phytotoxicity. *J. Central. China Agri. Univ.* 14(4): 356-362
17. Liu, J, R.Chen, Y.Dong, **Hu Hongqing** et al., 1995. Response and economic benefit of several kinds of phosphate rock with various amounts applied to red brown soil (Chinese). *Hubei Agri. Sci.* No. 5:29-33
18. Huang. Q, X.Li and **Hu Hongqing**. 1995. The alleviating effect of Si on Al toxicity for wheat growth in Red soil (Chinese). *Environ. Sci.* 16(6):11-13
19. **Hu Hongqing**, X.Li and Q.Huang, 1996. The toxicity and amelioration of Al in acid soil (Chinese). In *Current Res. In Agri. Sci.* PP 88-90. Tianjing Sci. Tech. Press, Tianjing
20. **Hu Hongqing**, 1996. The technique of weed killer safe utilization (Chinese). *Prac. Tech. Information of Rural Area.* No. 8:20-21
21. **Hu Hongqing**, X.Li, J.Liu et al., 1996. The effect of direct application of phosphate rock on increasing crop yield and improving properties of red soil. *Nutrient Cycling in Agroecosystem.*

46(3):235-239

22. **Hu Hongqing**, F.Xu and X.Li, 1997. The clay mineral association and surface properties of Mufu mountain soil (Chinese). Acta Pedologica Sinica. 34(3):256-262
23. **Hu Hongqing**, J.He, X.Li et al., 1997. Effects of low-molecular-weight organic acid on phosphate adsorption on acid soil surface (Chinese). J. Huazhong Agri. Univ. 16(1):52-57
24. Qin T. Huang Q, **Hu Hongqing** et al., 1997. Effects of cadmium, lead single and combination pollution on the contents of ascorbic acid in *Brassica chenensis* L. (Chinese) Chinese J. of Ecology. 16(3):31-34
25. **Hu Hongqing**, He J. Li X. 1997. Effect of low-molecular-weight organic acid in soil on phosphate adsorption. In *Facing 21st Century Soil and Plant Nutrition Sci.* (eds. Huang Q .et al., ) Chinese Agri. Press, Beijing. P112-116
26. **Hu Hongqing**, Li, X. He J. 1998. Effect of organic acids on desorption of phosphate from aluminum oxides surface. (Chinese) Plant Nutr. Fert. Sci. 4(3):249-256
27. **Hu Hongqing**, He, J. Wu. 1998. Clay mineralogy and surface properties of Hubei province soils derived from quaternary period deposit.(Chinese) J.of Huazhong Agri. Univ. 17(4):335-340
28. Li X, **Hu Hongqing** et al., 1998. Benefits from the direct application of phosphate rock on acid soils in central China. In Nutrient Management for Sustainable Crop Production in Asia (eds. A.E.Johnston and J.K.Syers). CAB International. P 337-339
29. **Hu Hongqing**, Xu F, Li X et al., 1999. Benefit and soil amendment effect of phosphate rock direct application brown red soil upland in south Hubei province.(Chinese) *Researches on soil Science-Plant Nutrition*. Shanxi Sci Tech. Press. P579-583
30. **Hu Hongqing**, He J. Li X. 1999. Effects of organic acids on phosphate adsorption by variable charge soils.(Chinese) Plant Nutr. Fert. Sci. 5(2):122-128
31. **Hu Hongqing**, He J. and Gao Y. 1999. Potassium adsorption by several soils in Hubei province at different  $K^+$  concentration, pH and ion strength.(Chinese) J. Huazhong Agri. Univ.18(3): 229-233
32. **Hu Hongqing**, He J. Li X and Liu F. 1999. Studies of competitive adsorption between tartrate and phosphate on synthetic noncrystalline  $Al(OH)_x$  surface by X-ray photoelectron Spectroscopy. (Chinese). J. Huazhong Agri. Univ. Sup 28:52-57
33. **Hu Hongqing** and Cai C. 1999. Advance of phosphate rock direct application to brown red soil and yellow brown soil in central China.(Chinese). J. Huazhong Agri. Univ. Sup 28:230-234
34. Chen, R., J.Liu, **Hu Hongqing** et al., 1999. Profits of application phosphate rock in acid soils in central China, Proc. International Symp. on Balance Fertilization, Chinese Agri. Sci. Tech. Press, Beijing. P458-465
35. Zhou Y., Wang Q., Wu D. and **Hu Hongqing**. 1999. On the principle and method of lake water environment prediction.(Chinese). Resource and Environment in Yangtze River Basin. 8(3):305-311
36. **Hu Hongqing**, Li X. He J. 2000. Effects of organic acids on phosphate adsorption by synthetic Al oxides. (Chinese). Plant Nutr. Fert. Sci. 6(1):35-41.
37. **Hu Hongqing**, He J.Z., Li X.Y. 2001. Competitive adsorption of phosphate and several organic acids on  $Al(OH)_x$  surfaces.(Chinese). Plant Nutrition and fertilizer Science.7(1):50-55.
38. **Hu Hongqing**, He J.Z., Li X. Y., Liu F. 2001. Effect of several organic acids on phosphate adsorption by variable charge soils of central china. Environment International. 25(5-6):351-356.
39. Huang Q.Y., **Hu Hongqing**. 2001, Chemistry of rhizosphere soil. In Soil Chemistry.(ed. Li Xueyuan). Higher Education Press. Beijing. P350-371.
40. **Hu Hongqing**, Tan C., Cai C., He J. and Li X. 2001. Availability and residual effects of phosphate rocks and inorganic P fractionation in a red soil of Central China. Nutrient Cycling in Agroecosystem. 59(3):251-258

41. **Hu Hongqing**, Liao L.X., Ye X.S., Wang Y.J. 2001. Effect of residual phosphate in red soil on rapeseed growth and inorganic phosphorus fractionation for rhizosphere and bulk soils. J. Huazhong Agri. Univ. 20(4): 354-357
42. **Hu Hongqing**, Wang Mingxia, 2001. Agricultural effect of sulfur in the atmosphere. Research on ecosystem in red soils. Issue 6, China Agri. Sci. Tech. Press. P82-89
43. Cai Chongfa, Yao Q.H., Yang L., **Hu Hongqing**, et al. Eds, 2001. The studies on soil resource characteristics and agricultural development in hilly brown red soil regions of central China. Hubei Sci. Tech. Press
44. **Hu Hongqing**. 2001. Clay Minerals and surface properties of brown red soils. Pp40-62. (special book above)
45. **Hu Hongqing**, 2001. Phosphorus chemistry in brown red soil and application of phosphate rocks. Pp81-103. (special book above)
46. Tan Wenfeng, Liu F., Li X.Y., He J.Z., **Hu Hongqing**, 2001. Redox characteristics between several Fe-Mn nodules in soils and Cr(III)(I)—effects of type of Mn oxide mineral and adsorbed ion. Acta Scientiae Circumstantiae. 21(5):592-596
47. **Hu Hongqing**, He J.Z., Li X.Y., 2002. Effects of organic ligands on adsorption of phosphate on a noncrystalline Al-hydroxide. Developments in soil science, eds. Violante A., Huang P.M., Bollag, J.-M. and Gianfreda L., Elsevier Science, p311-317
48. **Hu Hongqing**, Liao L. X., Wang X.L. 2002. Effects of low molecular weight organic acids on inorganic phosphorus transformation in red soils and its acidity. Chinese J. Applied Ecology. 13(7): 867-870..
49. **Hu Hongqing**, Gao Y.Z., Wang W. F., 2002. Effects of cadmium, lead pollution on physiological properties of *Brassica Chinensis L.* Proceedings of symposium of 7<sup>th</sup> youth soil scientists in China(ed. Zhou W. et al.). China Agricultural Sci. Tech. Press.
50. Tan W.F., Liu F., Li X.Y., **Hu Hongqing** et al., 2002. Redox reaction of Cr(III) on manganese oxides in Fe-Mn nodules of several soils from China. Abstracts of the 17<sup>th</sup> WCSS, p989. Full paper in CD
51. Gao Y.Z., He J.Z., Ling W.T., **Hu Hongqing**, et al., 2002. Effects of organic acids on Cu desorption in contaminated soils. China Environmental Science. 22(3): 244-248
52. Feng X.H., Liu F., Tan W.F., **Hu Hongqing**, 2002. Application of atomic force microscopy in mineral interface chemistry. Earth Science-J. of China Univ. of Geosciences. 27(suppl.): 333-338
53. Gao YZ, He JZ, Ling WT, **Hu Hongqing** et al, 2003. Effects of organic acids on copper and cadmium desorption from contaminated soils. Environment Int. 29: 613-618
54. Feng X.H., Liu F., Tan W.F., Liu X.W., **Hu Hongqing**, 2003. China Science Bulletin (D series), 33(11):1084-1093
55. **Hu Hongqing**, Li Y., He J.Z., 2004. Interaction of organic acids and phosphorus in soils. Chinese J. Soil Sci., 35(2): 222-229
56. **Hu Hongqing**, Li X.Y., He J.Z., Liu F., 2004. Secondary adsorption of phosphate on aluminum oxides surfaces as influenced by several organic acids. J. Plant Nutri. 27(4): 637-649
57. Wu L. S., Wang C. Q. **Hu Hongqing** et al., 2004. Soil and Fertilizer. Beijing: China Agriculture Press.
58. Feng X.H., Liu F., Tan W.F., Liu X.W., **Hu Hongqing**, 2004. Synthesis of todorokite by refluxing process and its primary characteristics. Science in China ser. D Earth Sciences, 47(8):760-768
59. **Hu Hongqing**, Yang S. M., Wang Y. J., et al. 2004. Contamination of heavy metals in plants of Daye Longjiaoshan gangue area. Ecology and Environment. 13(3):310-311
60. **Hu Hongqing**, Wang Q. Z., Li M. Q. et al. 2004. Production increase effect and mechanism for straw covering of wheat field in Jingmen city. Soils and Fertilizers. (5): 30-32~35
61. Li X.Y. **Hu Hongqing**, Tan W.F. et al. 2004. Distribution of humus in paddy soils with different

- gleyed degree in the Four Lake Region of Jiangnan plain. *J. Huazhong Agri. Univ.* 23(6): 631-634
62. **Hu Hongqing**, Chen S., LI Y., et al., 2004. Effects of physiochemical and surface characteristics of soils on copper adsorption. *Ecology and Environment*. 13(4): 544-545, 548
  63. **Hu Hongqing**, Chen Y., Wang Q. Z., et al. 2004. Study on prescription fertilization on paddy soil in Jingmen city. *Soils and Fertilizers*. (6): 3-6
  64. **Hu Hongqing**, Tang C., Rengel Z., 2005. Role of phenolics and organic acid in phosphorus mobilization in calcareous and acidic soils. *J. Plant Nutri.* 28(8):1427-1439
  65. **Hu Hongqing**, Tang C., Rengel Z., 2005. Influence of phenolic acids on phosphorus mobilization in acidic and calcareous soils. *Plant Soil* 268(1):173-180
  66. **Hu Hongqing**, X. Li and J. He, 2005. Effects of organic acids on desorption of phosphate from the surfaces of aluminum hydroxide and complexes. In *Abiotic & Biotic Interactions: The Impact on the Ecosystems & Human Welfare*. (Huang P. M. ed.). Science Publishers, Inc., USA, P165-176
  67. Hu Y., Li J.-H., Zhu Y.-G., Huang Y.-Z., **Hu Hongqing**, et al., 2005. Sequestration of As by iron plaque on the roots of three rice (*Oryza Sativa* L.) cultivars in a low-P soil with or without P fertilizer. *Environmental Geochemistry and Health*. 27(2):169-170.
  68. **Hu Hongqing** et al., 2005. Biomass and nutritional quality of pepper and radish grown on grey chao soil polluted by cadmium and lead. In *Plant Nutrition for Food Security, Human Health and Environmental Protection* (eds. Li C.J., Zhang F.S., Dobermann, A., et al.). Beijing, Tsinghua University Press. P 782-783
  69. **Hu Hongqing**, H. Liu and J. He, 2005. Effects of several organic acids on copper adsorption by soils with permanent and variable charges. *Acta Pedologica Sinica*. 42 (2) : 232-237
  70. Li J.J., Fu Q. L., Lv Y, **Hu Hongqing**. 2005. Reaction and minerals absorption by pepper under heavy metal cadmium, lead and their combination pollution on grey chao soil. *J. Agro-environment Science*. 24 (2) : 236-241
  71. Fu Q.L., **Hu Hongqing**, Li J. J., Lv Y. 2005. Turnip production and quality and mineral assimilation influenced by complex pollution of cadmium and lead in a grey chao soil of Wuhan. *J. Agro-environment Science*. 24 (2) : 231-235
  72. Liao L.X., **Hu Hongqing**, He J.Z. 2005. Surface charge characteristics of zonal soils in central and southern China. *J. Huazhong Agri. Univ.* 24 (1) : 29-32
  73. Li Y., **Hu Hongqing**, Liu J., et al., 2005. Characteristics of Wuhan Zoo Soils and Phosphorus Dissolution by Some Chemicals. *J. Huazhong Agri. Univ.* 24 (2) : 165-168
  74. Liao L.X., **Hu Hongqing**, He J.Z. 2005. Effects of Organic Acids on Surface Charge Characteristics of Permanent and Variable Charge Soils. *Acta Pedologica Sinica*. 42 (5) : 866-870
  75. Yang Q., Fu Q.L., **Hu Hongqing**, et al. 2006. Effects of Cd and Pb compound pollution in yellow brown soil on the growth and quality of lettuce. *J. Huazhong Agri. Univ.* 25(4): 389-392
  76. Zhang X. W., Cai P., Huang Q.Y., **Hu Hongqing**. 2006. Influence of heavy metal – resistant bacterium on the specific surface areas of soil colloids and minerals. *J. Huazhong Agri. Univ.* 25(4): 393-396
  77. Huang L., Wang R., **Hu Hongqing**, and Li X.Y. 2006. Effect of organic acids on the adsorption of  $Pb^{2+}$  and  $Cd^{2+}$  by goethite and montmorillonite. *Acta Pedologica Sinica*. 43 (1) : 98-103
  78. Tan Wenfeng, Liu F, Li Y H, **Hu Hongqing** and Huang Q Y, 2006. Elemental composition and geochemical characteristics of iron-manganese nodules in main soils of China. *Pedosphere*. 16(1): 72-81
  79. Li J. J., **Hu Hongqing**, Fu Q. L., et al., 2006. Effects of Cadmium and Lead pollution at single or compound on biomass of pepper and heavy metals remaining. *J. Agro-environment Science*. 25 (1) : 49-53
  80. Liu Y. R., Fu Q. L., Liang W., Cai P., **Hu Hongqing**, 2006. Progress in Soil Degradation

Characteristics of Toxins Released by Transgenic Bt Crops. *Hubei Agri. Sci.* 45(3):377-381

81. Huang L., Hong J., Tan W. F., **Hu Hongqing**, Liu F. 2006. Micro-morphous of Fe-Mn coating and element distribution from several subtropical soils of China. *Progress in Natural Science*, 16(9): 1122-1129
82. Wang D.Z., **Hu Hongqing**, Li X.Y., 2006. P releasing mechanism of PRs and agricultural effect in acid soils. *Chinese Agricultural Science Bulletin*. 22(9):242-245
83. Wang P., Wang Y.J., **Hu Hongqing**, Liu F., 2006. Rhizosphere nutrients states in red soil and yellow cinnamon soil. *J. Huazhong Agri. Univ.* 25(5):520-523
84. Fu Q.L., Lv Y., Li J.J., **Hu Hongqing**, 2006. Effects of lead and cadmium on quality of lettuce growing in a polluted grey chao soil and uptake of mineral elements. *J. Agro-environment Science*. 25 (5) : 1153-1156
85. **Hu Hongqing**, Liu H L, He J Z, Huang Q Y, 2007. Effect of selected organic acids on cadmium sorption by variable- and permanent-charge soils. *Pedosphere*, 17(1): 117-123
86. Li Y, Ni D.J., **Hu Hongqing**, Xiang W.S., Li X.Y., 2007. Probing components of microbes in red soils of central China with the aqueous two-phase partitioning technique. *Acta Pedologica Sinica*. 44 (1) : 150-156
87. Fu Q.L. , Dong Y.J., **Hu H.Q.** Huang Q.Y. 2007. Adsorption of the insecticidal protein of *Bacillus thuringiensis* subsp. *kurstaki* by soil minerals: Effects of organic acid ligands. *Applied Clay Science*, 37, 201-206.
88. Fu Q.L., **Hu H.Q.** Chen S.W., et al. 2007. Adsorption of the insecticidal protein of *Bacillus thuringiensis* subsp. *kurstaki* by some Chinese soils: effects of organic acid ligands addition. *Plant and Soil*, 296: 35-41.
89. Huang Li, W F Tan, F Liu, **Hongqing Hu**, Q Y Huang, 2007. Composition and transformation of 1.4nm minerals in cutan and matrix of alfisol in central China. *Journal of Soils & Sediments*, 7(4):240-246
90. **Hu Hongqing**, Liao L X, He J Z, 2007. Effects of organic acids on the surface charge characteristics and cadmium secondary adsorption on two soils. In: Y-G Zhu, N Lepp and R Naidu eds. *Biogeochemistry of trace elements: environmental protection, remediation and human health*. Tsinghua University Press, P611-612
91. Huang L, Liu C, **Hu H Q**, et al, 2007. Effects of organic acids on Cd<sup>2+</sup> and Pb<sup>2+</sup> adsorption on goethite and bentonite at different pH. *Acta Pedologica Sinica*. 44(4):643-649 (in Chinese)
92. Wang P, **Hu H Q**, et al, 2007. Rhizospheric soil surface charge characteristics of yellow cinnamon soil and Cu<sup>2+</sup> adsorption. *Acta Pedologica Sinica*. 44(4):757-760 (in Chinese)
93. Zhou M H, Huang G Y, Chen Y P, Ni D Z, **Hu H Q**, 2007. Temporal and spatial distribution of N in marsh soils of artificial wetland of Wuhan Zoo. *J Huazhong Agri Univ.*, 26(3):322-326 (in Chinese)
94. Zhang Y H, Huang W, **Hu H Q**, et al, 2007. Remaining dynamics of cry1Ab proteins from transgenic Bt corn in soils. *J Huazhong Agri Univ*, 26(4):486-490 (in Chinese)
95. Rao X F, Jin Y P, **Hu H Q**, et al, 2007. Nutrients leaching from soil column applied different amount of animal excrement compost. *Environmental Chemistry*. 26(6):774-778 (in Chinese)
96. Wang C Y, Huang L, Tan W F, **Hu H Q**, 2007. Relationship between organic matter and aggregates in several eroded ultisols. *J Soil and Water Conservation*, 21(3):52-56 (in Chinese)
97. Fu Q.L., Wang W.Q., **Hu H.Q.** Chen S.W. 2008. Adsorption of the insecticidal protein of *Bacillus thuringiensis* subsp. *kurstaki* by minerals: effects of inorganic salts. *European Journal of Soil Science*. 59: 216-221
98. Wang C Y, Huang L, Tan W F, Cai C F, **Hu H Q**, 2008. Organo-mineral complexing and soil

- nutrients in several eroded ultisols. *Acta Pedologica Sinica*, 45(3):510-517
99. Zheng Y M, Liu Y R, **Hu H Q**, He J Z, 2008. Mercury in soils of three agricultural experimental stations with long-term fertilization in China. *Chemosphere*, 72:1274-1278
100. Wang S J, **Hu H Q**, Li Z, Chen G G, 2008. Cu and Cd extraction from contaminated soils by organic ligands. *J Agro-Environment Sci.*, 27(4):1627-1632
101. Liao L X, **Hu H Q**, He J Z, 2008. Effects of two kinds of organic acids on Cd secondary adsorption by permanent- and variable- charge soils. In Luo Y M et al eds. *Main Soil Environment Questions and Management in China*. Nanjing, Hehai University Press. Pp219-224
102. Zheng S Z, **Hu H Q**, Zhuang G Q, 2008. Research progress on K transport in soil and plant availability through K fertilizer application. Soil Science Society of China, *Soil Science and Social Sustainable Development (Book 1)*. China Agri Univ. Press. Pp309-316
103. Fu Q L, Deng Y L, Li H S, Liu J, **Hu H Q**, Chen S W, Sa Tongmin, 2008. kinetic and thermodynamic studies of Bt protein adsorption by soils. Soil Science Society of China, *Soil Science and Social Sustainable Development (Book 3)*. China Agri Univ. Press. Pp142-149
104. Liu Y H, Jiang G J, Yang H Z, Fu Q L, **Hu H Q**, 2008. Research progress on soil heavy metals pollution and remediation technique. Soil Science Society of China, *Soil Science and Social Sustainable Development (Book 3)*. China Agri Univ. Press. Pp356-362
105. Huang L, Hong J, Tan W F, **Hu H Q**, Liu F, Wang M K, 2008. Characteristics of micromorphology and element distribution of iron-manganese cutans in typical soils of subtropical China. *Geoderma*, 146:40-47
106. Fu Q L, Xiang A H, **Hu H Q**, Huang Q Y, 2008. Effect of acetate on adsorption of Bacillus thuringiensis insecticidal toxin by several zonal soils in central and southern China. *Acta Pedologica Sinica*. 45(6): 1208-1211
107. Fu Q L, Deng Y L, Li H S, Liu J, **Hu H Q**, Chen S W, Sa T M, 2009. Equilibrium, kinetic and thermodynamic studies on the adsorption of the toxins of Bacillus thuringiensis subsp. Kustaki by clay minerals. *Applied Surface Sci.*, 255(8):4551-4557
108. Wang P, **Hu H Q**, Ding Z Q, 2009. Soil current states analysis on garden green land in Wuhan. *Hubei Agri Sci*. 48(1):78-80
109. Li J Y, **Hu H Q**, Li R J, Chen S W, Zhang S F, 2009. Modified phosphate rock by gamma- poly glutamic acid and its effects on the growth of rapeseed seedlings and soil properties. *Plant Nutrition and Fertilizer Sci.*, 15(2): 441-446
110. Fu Q L, **Hu H Q**, Li J J, Huang L, Yang H Z, Lv Y, 2009. Effects of soil polluted by cadmium and lead on production and quality of pepper ( Capsium annuum L.) and raddish (Raphanus salivus L.). *J Food, Agri and Environ*. 7(2):698-702
111. Zhang Y H, Wu L S, Geng M J, **Hu H Q**, Zhang S X, 2009. Effects of several oligosaccharides on the yield and quality of Brassica chinensis. *J Huazhong Agri Univ.*, 28(2):164-168
112. Huang W, Zhang Y H, Chen D Q, **Hu H Q**, Zhuang G Q, 2009. Degradation and remaining of the Bt protein in several soils. *J Huazhong Agri. Univ.*, 28(2):169-173
113. Yang H Z, **Hu H Q**, Huang Q Y, et al, 2009. Effects of compost on the fractions of copper and cadmium in heavy metal contaminated soils. *Acta Scientiae Circumstantiae*, 29(9):1842-1848
114. Islam MR, Madhaiyan M, Boruah HPD, Yim W, Lee G, Saravanan VS, Fu QL, **Hu HQ**, Sa T. 2009. Characterization of Plant Growth-Promoting Traits of Free-Living Diazotrophic Bacteria and Their Inoculation Effects on Growth and Nitrogen Uptake of Crop Plants. *Journal of Microbiology and Biotchnology*. 19(10): 1213-1222
115. Huang Li, Tan Wenfeng, Liu, Fan, **Hu Hongqing**, Wang Ming Kuang. 2009. Characteristics of Iron-Manganese Cutans and Matrices in Alfisols and Ultisols of Subtropical China. *SOIL*



**SCIENCE**, 174(4): 238-246

116. Jiang Guanjie, **Hu HQ**, Liu YH, Yang C, Yang HZ, 2009. Study on immobilizing soil exogenous lead using phosphate rock. In *Molecular Environmental Soil Science at the interface in the Earth's Critical Zone*. Jianming Xu, Pan ming Huang eds. Zhejiang Univ. Press, Springer, P121-123
117. Fu Qingling, **Hu HQ**, Chen SW, Huang L, Huang QY, Sa TM, 2009. Spectral studies of the toxin of Bt adsorbed by minerals. In *Molecular Environmental Soil Science at the interface in the Earth's Critical Zone*. Jianming Xu, Pan ming Huang eds. Zhejiang Univ. Press, Springer, P207-209.
118. Yang HZ, **Hu HQ**, Huang QY, Huang L, Zhang Z, 2009. Effect of compost on quality and yield of vegetable grown in heavy metal contaminated soil. *Journal of Agro-environment Science*, 28 ( 9 ) : 1824-1828
119. Wang P, Hu HQ, Ding ZQ, et al, 2009. Study on Pb adsorption by two soils. *Yuanlin Keji*, No.1: 32-35
120. Jiang GJ, Hu HQ et al, 2010. Immobilizing soil exogenous lead using rock phosphate. **J. Food Agri & Environ**, 8 (1): 275-280
121. Huang L, Hu HQ, et al. 2010. Influences of low molar mass organic acids on the adsorption of Cd<sup>2+</sup> and Pb<sup>2+</sup> by goethite and montmorillonite. **Appl Clay Sci**, 49 (3): 281-287
122. Liu J, Hu HQ et al. 2010. Kinetics of adsorption of the toxin of *Bacillus thuringiensis* on minerals and its affecting factors. *Acta Pedologica Sinica*, 47 ( 4 ) : 786-789
123. Fu J, Zheng SZ, Fan J, Hu HQ, et al. 2010. Effects of several types of K fertilizers on rice yield, quality and soil nutrient status in paddy soil of Hubei province. *Hubei Agricultural Science*, 49 ( 8 ) : 1826-1830
124. Fan J, Zheng SZ, Hu HQ, et al, 2010. Effect of spraying foliar fertilizer on pak choy with the treatment of different base fertilizers. *China Soil and Fertilizer*, ( 3 ) : 25-30
125. Li J, Yang HZ, Hu HQ, et al. 2010. Effect of plant fly ash application on *Brassica chinensis* growth and amendment of acid soil. *Hubei Agri Sci*, 49 ( 4 ) : 822-825
126. Fan J, Zheng SZ, Hu HQ, et al. 2010. Primary study on effect of different special foliar fertilizer application on the quality of rice and citrus. *Hubei Agri Sci*, 49 ( 3 ) : 353-356
127. Zhang HX, Zheng SZ, Fan J, Fu QL, Hu HQ, et al. 2010. Effects of several K fertilizers on cotton production, quality and nutrient uptake. *Hubei Agri Sci*, 49 ( 12 ) : 3015-3018
128. Wang LX, Fu QL, Hu HQ, et al. 2011. Fluorine content in tea leaf and fluorine fractionation in soils of tea gardens in Hubei province. *Environmental Chemistry*, 30(3): 662-667
129. Yang QH, Zheng ZW, Zhang ZY, An R, Hu HQ, et al. 2011. Temporal and spatial distribution of soil heavy metals in water-level-fluctuation zone of Xiaojiang watershed in Three Gorges reservoir. *Journal of Hydroecology*, 32(2): 11-16
130. Chen L, Wang M, Wang S, Hu HQ. 2011. Effects of integrated fertilization with bio-ash and chemical fertilizers on soil properties and growth of rape. *J Huazhong Agri Univ.*, 30(6): 727-733
131. Xu XH, Jiang GJ, Hu HQ, et al. 2011. The immobilization effect of oxalic acid activated phosphate rocks applied to the Cd contaminated farmland soil in mining area. *J Agro-environ Sci.*, 30(10): 2005-2011
132. Zheng SZ, Fan J, Hu HQ. 2011. The effect of different rates and forms of sulphur applied on soil microbial biomass and activity. **J Food, Agric and Environ**. 9(3&4): 898-906
133. Liu YH, Feng L, Hu HQ, et al. 2011. Removal of copper from aqueous solution with phosphate rocks. 2011 International Conference on Remote Sensing, Environment and Transportation Engineering (RSETE 2011). Vol 3, Pp 2367-2371
134. Feng L, Liu YH, Hu HQ, et al. 2011. Effect of several mineral materials on copper form in contaminated soil. *Acta Scientiae Circumstantiae*. 31(11): 2467-2473
135. Chen CR, Tang CX, Hu HQ. 2011. Soil phosphorus availability. *10000 Selected Problems in Sciences: Agriculture Sciences*. Beijing: Science Press. Pp 321-324

136. Fu QL, Chen SW, Hu HQ, et al. 2011. Distribution of Bt protein in transgenic cotton soils. *Chinese J Applied Ecology*. 22(6): 1493-1498
137. Wang LX, Hu HQ, Min YL et al. 2011. Simulated control of water-soluble fluoride content in tea garden soils. *Acta Scientiae Circumstantiae*. 31(7): 1517-1525
138. Zheng ZW, Zou X, An R, Wan CY, Hu HQ. 2011. Soil physical and chemical properties in water-level-fluctuation zone in Xiaojiang watershed in Three Gorges Reservoir. *J Hydroecology*. 32(4): 1-6.
139. Ugochukwu N, Ebong E, Onweremadu U, Fu QL, Huang L and Hu HQ. 2011. Impacts of inorganic ions and temperature on lead adsorption onto variable charge soils. *International Conference Proceedings of PSRC, ICCEBS'2011*. p429-435
140. Y Liani, Hu HQ, Sumarsona, DW Widjajanto and Jiang GJ, 2011. Phosphate rock application on alfalfa (*Medicago sativa* L.) production and macronutrients in latosol soil. *J Indonesian Trop Anim Agric*. 36(4): 290-296
141. Fu QL, Zhang YH, Huang W, Hu HQ, Chen DQ, Yang C, 2012. Remaining dynamics of cry1Ab proteins from transgenic Bt cotton in soil. *Journal of Food, Agriculture and Environment*, 10(1):294-298
142. Liu YH, Feng L, Hu HQ, Jiang GJ, Cai ZJ and Deng YJ, 2012. Phosphorus release from low-grade phosphate rocks by low molecular weight organic acids. *J Food, Agri and Environ.*, 10(1):1001-1007
143. Fu QL, Peng YW, Huang T, Hu HQ, Deng YL, Yu X., 2012. Effects of ionic strength and sesquioxides on adsorption of toxin of *Bacillus thuringiensis* subsp. *Kustaki* on soils. *Pedosphere*, 22(1): 96-102
144. Wang XM, Sun SF, Liu F, Tan WF, Hu HQ, Feng XH. 2012. The P adsorption-desorption characteristics on ferrihydrite and crystalline Fe oxides suspension. *Geochimica*, 41(1): 89-98
145. Su XJ, Li CF, Wang H, Cao CG, Zhang FP, Hu HQ. 2012. The soil clay mineral association in Lawu and Zhaxikang mine regions, Tibet. *Chinese J Soil Sci*. 43(3):546-550
146. Zhu Q, An R, Hu HQ, Wan CY, Hu L, Wang SM. 2012. Adsorption and transformation of phosphorus in soils of the tidal zone of the Three Gorges Reservoir region. *Acta Pedologica Sinica*, 49(6): 1128-1135
147. Jiang GJ, Liu YH, Huang L, Fu QL, Deng YJ, Hu HQ. 2012. Mechanism of lead immobilization by oxalic-activated phosphate rocks. *J Environ Sci*. 24(5): 919-925
148. Jing Y, Fu QL, Zheng J, Kang W, Liu YH, Hu HQ. 2012. Research status on Phytoremediation of Copper Contaminated Soil with Hyperaccumulator. *J Agri Sci Tech*. 14(4): 93-100
149. Wang H, Zhu J, Fu QL, Hu HQ, Feng XF. 2012. Effect of humic acid on phosphorus release from goethite-P complex. *Soil Sci Facing Future (Book 1)*. Elect Sci Tech Press, pp396-397
150. Jing Y, Zheng J, Kang W, Hu HQ, Liu YH, Zhu J, Fu QL, Zou T. 2012. Induce of castor (*Ricinus communis* L.) callus and Cu tolerance. *Soil Sci Facing Future (Book 2)*. Elect Sci Tech Press, pp 745-746
151. Yu X, Fu QL, Hu HQ, Liu JP. 2012. Returning of transgenic Bt rice straw affecting soil denitrification and microbial diversity. *Soil Sci Facing Future (Book 2)*. Elect Sci Tech Press, pp 938-939
152. Wang H, Yi S, Fu QL, Hu HQ, Zhu J, Huang QY. 2012. Phosphorus adsorption of iron oxides-humic acid compounds. *Plant Nutrition and Fertilizer Sci.*, 18(5): 1144-1152
153. Jiang L, Shi ZP, Hu HQ, Jiang GJ, Fu QL, Zhu J. 2012. Effects of organic acids and phosphate on lead release from two contaminated soils. *J Agro-Environ Sci*. 31(9): 1710-1715
154. Zou X, Zheng ZW, Zhang ZY, An R, Hu L, Wan CY, Hu HQ. 2012. Temporal and spatial distribution and sources analyses of soil heavy metals in water-level-fluctuation zone of Xiaojiang watershed in Three Gorges Reservoir. *J Hydroecology*. 33(4): 33-39
155. Ugochukwu N, Ali I, Fu QL, Zhu J, Jiang GJ and Hu HQ. 2012. Sorption of lead on variable charge soils in China as affected by initial metal concentration, pH and soil properties. *J Food, Agri. Environ*. 10(3&4): 1014-1019

156. Fu QL, Deng YL, Hu HQ, Yu X, Han XF, Li Y. 2012. Effects of Fe and Al oxides on adsorption of Bt toxin by several soils in south of China. *Scientia Agricultura Sinica*, 45(23): 4836-4843
157. Jiang GJ, Hu HQ, Zhang JQ, Yi S, Wang BL, Lu M. 2012. Immobilization effects of phosphate rock activated by oxalic acid on exogenous lead in latosol. *Transactions of the Chinese Society of Agricultural Engineering (Transactions of the CSAE)*, 28(24): 205-213
158. Wang R, Huang L, Liu F, Hu HQ. 2012. The formation of iron cutan on the surface of quartz sand: the influence of temperature and aging time. *Acta Petrologica et Mineralogica*, 31(6): 907-915
159. Fu QL, Deng YL, Hu HQ, Yu X, Wan TY, Han XF. 2012. Sorption of the toxin of *Bacillus thuringensis* subsp. *Kurstaki* by soils: effects of iron and aluminum oxides. *European Journal of Soil Science*. 63(5): 565-570
160. Li Y, Liu J, Zhu J, Fu QL, Hu HQ. 2012. Effect of dissolved organic matter on competitive adsorption of Cd and Zn by an alkaline soil. *Guangdong Journal of Agriculture Science*, (21): 79-81
161. Lin L, Zhou T, Tang F, Hu HQ, Fu QL. 2013. Effects of phosphorus on growth and uptake of heavy metals in strawberry grown in the soil contaminated by Cd and Pb. *J Agro-Environ Sci*, 32(3): 503-507
162. Xu XH, Jiang GJ, Fu QL, Liu YH, Hu HQ. 2013. Effect of activated phosphate rocks on growth and quality of lettuce in heavy metal contaminated soils. *Plant Nutrition and Fertilizer Sci.*, 19(2): 361-369
163. Ugochukwu N, Mohamed I, Ali M, Iqbal J, Fu QL, Zhu J, Jiang GJ, Hu HQ. 2013. Impacts of inorganic ions and temperature on lead adsorption onto variable charge soils. *Catena*, 109:103-109
164. Liu YH, Feng L, Hu HQ, Zheng XS. 2013. Evaluation of phosphate rock and activated phosphate rock for remediation of copper-contaminated soils. *Transactions of the Chinese Society of Agricultural Engineering*, 29(11): 180-186
165. Dong X, Wang CY, Huang L, Tan WF, Hu HQ. 2013. Effect of erosion degree on nutrient contents in aggregates with different particle sizes and stability of organic matter in red soil. *Acta Pedologica Sinica*, 50(3): 525-533
166. Zhu Q, Wang SM, Hu HQ, Wan CY, Hu L, Zhang ZY. 2013. Adsorption of Cu(II), Zn(II) by the purple soils in water-level-fluctuating belt of the Three-Gorge-Reservoir region. *Environmental Chemistry*, 32(8): 1456-1462
167. Wang R, Huang L, Liu F, Hu HQ. 2013. Synthesis of iron cutan on the surface of quartz sand — the influence of pH and iron mole ratio [Fe(II)]/[Fe(III)]. *Acta Mineralogica Sinica*, 33(3): 415-422
168. Guo P, Zhu Q, Wang SM, Hu HQ, et al. 2013. Changes of soil heavy metal forms of Three-Gorges Reservoir water-level fluctuation zone under the flooding simulation. *J Huazhong Agri Univ*. 32(6): 70-74
169. Zhang ZY, Wan CY, Zheng ZW, Chang JB, Hu L, Hu HQ. 2013. Interannual variations of vegetation and soil nutrients in the water level fluctuation zone in the Three Gorges Reservoir. *Proceedings of ISRS 2013. Achieving Healthy and Viable Rivers*. PP 657-666
170. Hu HQ, Huang L, Liu YH, et al. 2013. Study and application of activated phosphate rocks to immobilize heavy metals in arable land. *China Science and Technology Achievements*. 24, 35-37
171. Zhao J, Yang L, Luo CM, Hu HQ, et al. 2013. Review on the yield and quality efficiency of potassium-magnesium sulfate in several major crops. *Hubei Agri. Science*. 52(19): 4577-4581
172. Li GF, Luo CM, Huang QY, Hu HQ, et al. 2013. Adsorption characteristics on several soils to  $Mg^{2+}$  in Hubei province. *Hubei Agricultural Science*. 52(19): 4615-4618
173. Tang F, Hu HQ, Liu YH, Jiang GJ. 2013. Types of contaminated sites and risk control techniques. *Environmental Science and Technology (in Chinese)*. 36(12M): 195-202
174. Liu YH, Ma SW, Yue XL, Hu HQ. 2014. Low molecular weight organic acid in soils and its environmental effects. *J Huazhong Agricultural University*. 33(2): 133-138

175. Tang F, Qi YB, Li CL, Huang QY, Hu HQ, et al. 2014. Effects of two types of K fertilizers on nutrient uptake and economic benefit of cotton. *China Soil and Fertilizers*. (1): 37-41
176. Jiang GJ, Liu YH, Fu QL, Huang L, Zhang JQ, Hu HQ. 2014. Immobilization of soil exogenous lead using raw and activated phosphate rocks. *Environmental Progress and Sustainable Energy*. 33(1): 81-86
177. Zuo JC, Su XJ, Hu HQ, et al. 2014. Preliminary research on mechanism of phosphorus, lead and citric acid interaction in red soil colloid. *Acta Pedologica Sinica*, 51(1): 126-132
178. Dong X, Wang CY, Huang L, Tan WF, Hu HQ. 2014. Humus constituents in eroded red soil and its influence to water stable aggregates. *Acta Pedologica Sinica*, 51(1): 114-125
179. Huang GY, Hu HQ, Liu YH, Huang QY. 2014. Research progress on copper chemical behavior in rhizosphere and non-rhizosphere soil. *J Agri Sci Tech*. 16(2): 92-99
180. Zheng SZ, Jiang GJ, Hu HQ. 2014. Effects of different rates and forms of sulphate fertilizers on nutrient uptake and distribution of oilseed rape. *Acta Agriculturae Universitatis Jiangxiensis*. 36(2): 265-271
181. Wan TY, Huo Q, Qi ZF, Cao YL, Hu HQ. 2014. Contents of heavy metals in soils and vegetables around Wuhan Iron and Steel Corporation. *J Huazhong Agri. Univ*. 33(4): 77-83
182. Huang GY, Fu QL, Zhu J, Wan TY, Hu HQ. 2014. Effects of low molecular weight organic acids on speciation of exogenous Cu in an acid soil. *Environmental Science*. 35(8): 3091-3095
183. Zuo JC, Gao TT, Su XJ, Wan TY, Hu HQ. 2014. Effect of phosphate and organic acid addition on passivation of simulated Pb contaminated soil and the stability of the product. *Environmental Science*. 35(10): 3874-3881
184. Jiang L, Zhu J, Wang H, Fu QL, Hu HQ, et al. 2014. Sorption of humic acid on Fe oxides, bacteria, and Fe oxide-bacteria composites. *J Soils Sediments*. 14: 1378-1384
185. Han XF, Hu HQ. 2014. Application of bleaching read pulp by xylanase-producing alkalophilic bacillus. *Advanced Materials Reaserch*. 830: 207-210
186. Zhao J, Luo CM, Yang L, Hu HQ, et al. 2014. Effects of potassium and magnesium sulphate application on yield of rice and soil nutrient status in paddy soil. *Hubei Agri. Sci*. 53(5): 1025-1028
187. Zhang ZY, Pan XJ, Zheng ZW, Hu HQ, et al. 2014. Impact of operating Three Gorges Reservoir on the habitat and plant community in Hanfeng lake. *J Hydroecology*. 35(5): 1-7
188. Fan J, Wang R, Hu HQ, et al. 2014. Uptake and distribution of selenite and selenate in flue-cured tobacco. *Chinese Tobacco Science*. 35(5): 10-16
189. Zhu Q, Zhang ZY, Hu HQ, et al. 2014. The Soils physiochemical properties change under drain-flooding condition in Xiao Jiang water-level-fluctuating belt of the Three-Gorge-Reservoir Region. *Soils*. 46(5): 927-932
190. Su XJ, Zhu J, Fu QL, Zuo JC, Liu YH and Hu HQ. 2015. Immobilization of lead in anthropogenic contaminated soils using phosphates with/without oxalic acid. *Journal of Environmental Sciences*. 28(1): 64-73
191. Zhu J, Cai ZJ, Su XJ, Fu QL, Liu YH, Huang QY, Violante A, Hu HQ. 2015. Immobilization and phytotoxicity of Pb in contaminated soil amended with gamma-polyglutamic acid, phosphate rock, and gamma-polyglutamic acid-activated phosphate rock. *Environmental Science and Pollution Research*. 22(4): 2661-2667
192. Kang W, Bao JG, Zheng J, Hu HQ, et al., 2015. Distribution and chemical forms of copper in the root cells of castor seedlings and their tolerance to copper phytotoxicity in hydroponic culture. *Environmental Science and Pollution Research*. 22: 7726-7734
193. Wang H, Zhu J, Fu QL, Xiong JW, Hong C, Hu HQ and A Violante. 2015. Adsorption of phosphate onto ferrihydrite and ferrihydrite-humic acid complexes. *Pedosphere*, 25(3): 405-411.

194. Zhai K, Liu YH, Xiang DS, Guo GG, Wan TY, Hu HQ. 2015. Dual color fluorescence quantitative detection for mercury in soil with grapheme oxide and dye-labeled nucleic acids. *Analytical Methods*. 7(9): 3827-3832
195. Wang H, Zhu J, Fu QL and Hu HQ. 2015. Adsorption of phosphate on pure and humic acid coated ferrihydrite. *Journal of Soils and Sediments*. 15(7):1500-1509
196. Fan J, Wang R, Hu HQ, Huo G, Fu QL, Zhu J. 2015. Transformation and bioavailability of selenate and selenite added to a *Nicotiana tabacum* L. planting soil. *Communications in Soil Science and Plant Analysis*. 46(11): 1362-1375.
197. Zhang ZY, Cheng L, Zheng ZW, Wan CY, Wang Z, Hu HQ and Li CH. 2015. Effects of environment on riparian plant branches of the Hanfeng Lake. *Journal of Hydroecology*. 36(1): 9-18
198. Tang F, Hu HQ, Su XJ, Fu QL, Zhu J. 2015. Effects of phosphate rock and decomposed rice straw application on lead immobilization in a contaminated soil. *Environmental Science*. 3062-3067
199. Zhai K, Xiang DS, Zhu J and Hu HQ. 2015. Highly sensitive fluorescence quantitative detection of mercury in soil samples based on molecular beacon and nucleic acid dye SYBR Green I. *Chinese Journal of Analytical Chemistry*. 43(8): 1125-1129
200. Fan J, Wang R, Hu HQ, et al. 2015. Effect of exogenous selenium with different valences on Se forms, enzyme activities and microbial quantity of soil. *Journal of Soil and Water Conservation*. 29(5): 137-141
201. Luo CM, Hu HQ, Huang ZL and Ye L. 2015. Effects of potassium – magnesium sulfate on yield, quality and nutrients uptake of Pakchoi. *Hubei Agricultural Sciences*. 54(20): 4969-4974
202. Gao RL, Zhu J, Tang F, Hu HQ, Fu QL et al. 2016. Fractions transformation of Cd, Pb in contaminated soil after short-term application of rice straw biochar. *Acta Scientiae Circumstantiae*. 36(1): 251-256
203. Huang GY, Guo GG, Yao SY, Zhang N, Hu HQ. 2016. Organic acids, amino acids compositions in the root exudates and Cu-accumulation in castor (*Ricinus communis* L.) under Cu stress. *International Journal of Phytoremediation*. 18(1): 33-40
204. Muhammad A C, Muhammad SR, Huang GY, Zhu J, Hu HQ. 2016. Enhanced accumulation of Cd in castor (*Ricinus Communis* L.) by soil-applied chelators. *International Journal of Phytoremediation*. 18(7): 664-670
205. Zuo JC, Fu QL, Su XJ, Liu YH, Zhu J, Hu HQ, Deng YJ. 2016. Effects of phosphate and citric acid on Pb adsorption by red soil colloids. *Environmental Progress and Sustainable Energy*. 35(4): 969-974
206. Wang H, Zhu J, Fu QL, Hong C, Hu HQ, Violante A. 2016. Phosphate adsorption on uncoated and humic acid-coated iron oxides. *Journal of Soil and Sediments*. 16(7): 1911-1920
207. Muhammad SR, Muhammad I, Muhammad AC, Huang GY, Fu QL, Zhu J, Omar A, Hu HQ. 2016. Influence of pyrolytic and non-pyrolytic rice and castor straws on the immobilization of Pb and Cu in contaminated soil. *Environmental Technology*. 37(21): 2679-2686
208. Qi YB, Zhu J, Fu QL, Hu HQ, Huang GY, Violante A. 2016. Sorption of Cu by organic matter from the decomposition of rice straw. *Journal of Soils and Sediments*. 16: 2203-2210
209. Muhammad SR, Muhammad I, Huang GY, Muhammad AC, Liu YH, Fu QL, Zhu J, Muhammad A, Mohsin Z, Saqib B, Hu HQ. 2016. Immobilization of Pb and Cu in polluted soil by superphosphate, multi-walled carbon nanotube, rice straw and its derived biochar. *Environ Sci Pollut Res*. 23: 15532-15543
210. Huang GY, Su XJ, Muhammad SR, Zhu YF, Hu HQ. 2016. Chemical immobilization of Pb, Cu and Cd by phosphate materials and calcium carbonate in contaminated soils. *Environ Sci Pollut Res*. 23: 16845-16856
211. Hu C, Deng YJ, Hu HQ, Duan YH, Zhai K. 2016. Adsorption and intercalation of low and medium molar mass chitosans on/in the sodium montmorillonite. *International J Biological Macromolecules*. 92: 1191-1196

212. Hu C, Hu HQ, Zhu J and Deng YJ. 2016. Adsorption of  $\text{Cu}^{2+}$  on montmorillonite and chitosan-montmorillonite composite toward acetate ligand and the pH dependence. *Water, Air & Soil Pollution*. 227(10): 1-10. Doi: 10.1007/s11270-016-3067-9
213. Yuan WL, Feng L, Liu YH, Zheng XS, Hu HQ. 2016. Remediation of soils contaminated with Cu using modified bentonite. *J Natural Sci. of Hunan Normal Univ.* 39(2): 43-47
214. Chen L, Zhang ZY, Li CH, Wan CY, Hu HQ, et al. 2016. Effects of water-flooding in water-level-fluctuating zone of Three Gorges Reservoir on transformation of soil nitrogen form and activities of related enzymes. *J Huazhong Agri. Univ.*, 35(5): 33-38
215. Zhang ZY, Chen L, Li CH, Hu HQ, Wan CY. 2016. Growth and antioxidant enzyme activity in *Hemarthria altissima* and *cynodon dactylon* in response to water level fluctuation zone of Three Gorges Reservoir. *J. Hydroecology*. 37(3): 49-55
216. Gao RL, Zhu PF, Guo GG, Hu HQ, Zhu J, Fu QL. 2016. Efficiency of several leaching reagents on removal of Cu, Pb, Cd and Zn from highly contaminated paddy soil. *Environmental Science and Pollution Research*, 23(22): 23271-23280
217. Fan J, Wang R, Hu HQ, et al. 2016. Effect of selenate and selenite on selenium uptake and subcellular distribution in leaves of flue-cured tobacco. *Chinese Tobacco Science*. 37(4): 37-41
218. Huang GY, Jin Y, Zheng J, Kang W, Hu HQ, Liu YH, Zou T. 2017. Accumulation and distribution of copper in castor bean (*Ricinus communis* L.) callus cultures: In vitro. *Plant Cell, Tissue and Organ Culture*. 128: 177-186
219. Gao RL, Tang M, Fu QL, Guo GG, Li X, Hu HQ. 2017. Fractions transformation of heavy metals in compound contaminated soil treated with biochar, montmorillonite and mixed addition. *Environmental Science*. 38(1): 361-369
220. Zuo JC, Hu HQ, Liu YH, Zhu J, 2017. Effects of phosphorus and citric acid on adsorption of  $\text{Pb}^{2+}$  by kaolinite and goethite. *Acta Pedologica Sinica*. 54(1): 265-272
221. Hu C, Zhu PF, Cai M, Hu HQ, Fu QL. 2017. Comparative adsorption of Pb(II), Cu(II) and Cd(II) on chitosan saturated montmorillonite: kinetic, thermodynamic and equilibrium studies. *Applied Clay Science*. 143: 320-326
222. Zhou J, Hao M, Liu YH, Fu QL, Zhu J, Hu HQ. 2017. Physiological mechanism of different valences selenium in relieving cadmium stress of rape. *J Plant Nutrition Fertilizer*. 23(2): 444-450
223. Jiang L, Zhu J, Qi YB, Fu QL, Hu HQ, Huang QY. 2017. Increasing molecular structural complexity and decreasing nitrogen availability depress the mineralization of organic matter in subtropical forest soils. *Soil Biology Biochemistry*. 108: 91-100
224. Hu C, Li GY, Wan YY, Li FY, Guo GG, Hu HQ. 2017. The effect of pH on the bonding of  $\text{Cu}^{2+}$  and chitosan-montmorillonite composite. *Intl J Biological Macromolecules*. 103: 751-757
225. Duan R, Hu HQ, Fu QL, Kou CL. 2017. Remediation of Cd/Ni contaminated soil by biochar and oxalic acid activated phosphate rock. *Environ Sci*. 38(11): 4836-4843
226. Ren C, You JW, Qi YB, Huang GY, Hu HQ. 2017. Effects of sulphur on toxicity and bioavailability of Cu for castor (*Ricinus communis* L.) in Cu-contaminated soil. *Environmental Science & Pollution Research*. 24(35): 27476-27483
227. Hu C, Wang YN, Zheng ZH, Zhang AQ, Hu HQ. 2017. Study on adsorption of phosphate by chitosan-montmorillonite complex. *J Agro-environmental Science*. 36(10): 2086-2091
228. Li CF, Hu HQ, Cao CQ, et al. 2017. Research and practice of improving soil fertility for ratooning rice in China. *Hubei Agri Science*. 56(14): 2666-2669~2721
229. Qi YB, Zhu J, Fu QL, Hu HQ, Huang QY. 2017. Sorption of Cu by humic acid from the decomposition of

- rice straw in the absence and presence of clay minerals. *J Environmental Management*. 200: 304-311
230. Zhong XX, Wang T, Yuan WL, Liu YH, Zhu J, Fu QL, Hu HQ. 2017. Research progress on preparation and amendment of biochar and the environmental impact. *Natural Science Journal of Hunan Normal University*. 40(5): 44-50
231. Hu HQ, Huang YZ, Huang QY, Liu YH, Hu C. 2017. Research progress of heavy metals chemical immobilization in farm land. *J Plant Nutrition & Fertilizer*. 23(6): 1676-1685
232. Qi YB, Zhu J, Fu QL, Hu HQ, Rong XM, Huang QY. 2017. Characterization and Cu sorption properties of humic acid from the decomposition of rice straw. *Environmental Science & Pollution Research*. 24(30): 23744-23752
233. Xi RZ, Fu QL, Yang YQ, You JW, Zhu J, Hu HQ, Ye L. 2017. Effects of nitrogen fertilization and water content on the process and rate of N<sub>2</sub>O emission in paddy soils. *J Agro- Envir Sci*, 36(12): 2553-2560
234. Huang GY, Rizwan MS, Ren C, Guo GG, Fu QL, Zhu J, Hu HQ. 2018. Influence of phosphorus fertilization on copper phytoextraction and antioxidant defenses in castor bean (*Ricinus communis* L.). *Environmental Science and Pollution Research*. 25(1): 115-123
235. Zhou J, Li CH, Zhang ZY, Hu HQ, Wan CY, Hu L, Pan XJ. 2018. Transformation of inorganic phosphorus in water-level-fluctuating zone of the Three Gorges Reservoir, China. *Environmental Science*. 39(1): 130-136
236. Chhajro MA, Fu QL, Shaaban M, Rizwan MS, Zhu J, Hu HQ, et al. 2018. Identifying the characterization of functional groups and the influence of synthetic chelators and their effects on Cd availability and microbial biomass carbon in Cd contaminated soil. *Intl J Phytoremediation*. 20(2): 168-174
237. Fu QL, Clark IM, Zhu J, Hu HQ, Hirsch PR. 2018. The short-term effects of nitrification inhibitors on the abundance and expression of ammonia and nitrite oxidizers in a long-term field experiment comparing land management. *Biology & Fertility of Soils*. 54(1): 163-172
238. Saqib Bashir, Jun Zhu, Qingling Fu, Hu HQ, 2018. Comparing the adsorption mechanism of Cd by rice straw pristine and KOH-modified biochar. *Environ Sci Pollut Res*, 25(12): 11875-11883
239. Saqib Bashir, Zhu J, Fu QL, Hu HQ, 2018. Cadmium mobility, uptake and anti-oxidative response of water spinach (*Ipomoea aquatic*) under rice straw biochar, zeolite and rock phosphate as amendments. *Chemosphere*. 194: 579-587
240. Saqib Bashir, Hussain Qaiser, A Muhammad, Riaz M, Hu HQ, Ijaz SS, et al. 2018. Sugarcane bagasse-derived biochar reduces the cadmium and chromium bioavailability to mash bean and enhances the microbial activity in contaminated soil. *J Soils Sediments*. 18: 874-886
241. Saqib Bashir, M S Rizwan, Abdus S, Fu QL, Zhu J, S Muhammad, Hu HQ. 2018. Cadmium immobilization potential of rice straw-derived biochar, zeolite and rock phosphate: Extraction techniques and adsorption mechanism. *Bulletin Environ Contamin Toxicology*. 100(5): 727-732
242. Zhou J, Hao M, Liu YH, Huang GY, Fu QL, Zhu J and Hu HQ, 2018. Effects of exogenous sulfur on the growth and Cd uptake of chinese cabbage (*Brassica campestris* spp. *Pekinensis*) in Cd contaminated soil. *Environ Sci Pollut Res*. 25: 15823-15829
243. Saqib Bashir, Shaaban Muhammad, Hussain Qaiser, Mehmood Sajid, Zhu Jun, Fu Qingling, Aziz Omar, Hu HQ. 2018. Influence of organic and inorganic passivators on Cd and Pb stabilization and microbial biomass in a contaminated paddy soil. *J Soils Sediments*. 18(9): 2948-2959
244. Bashir S, Shaaban M, Mehmood S, Zhu J, Fu QL, Hu HQ. 2018. Efficiency of C3 and C4 plant derived-biochar for Cd mobility, nutrient cycling and microbial biomass in contaminated soil. *Bulletin Environ Contamin Toxicology*. 100(6): 834-838
245. Xu PD, Zhu J, Fu QL, Chen JZ, Hu HQ, Huang QY. 2018. Structure and biodegradability of dissolved

- organic matter from ultisol treated with long-term fertilizations. *J Soils Sediments*. 18: 1865-1872
246. Bashir S, Hussain Q, Shaaban M, Hu HQ. 2018. Efficiency and surface characterization of different plant derived biochar for cadmium (Cd) mobility, bioaccessibility and bioavailability to chinese cabbage in highly contaminated soil. *Chemosphere*. 211: 632-639
247. Zhao Y, Xi RZ, Fu QL, Zhu J, Hu HQ. 2018. Component characteristics of amino acids and organic acids in root exudates from transgenic Bt cotton at different growth stages. *Hubei Agri Sci*, 57(4): 26-30
248. Yao SY, Guo GG, Zhou XP, Ren C, Huang GY, Hu HQ. 2018. Effect of nitrogen and phosphorus application on uptake and accumulation of Cu by castor (*Ricinus communis* L.) in mine soil. *J Plant Nutri Fertil Sci*. 24(4): 1068-1076
249. Zhang ZY, Wan CY, Hu HQ, Peng JH, Hou J, et al. 2018. Phosphorus forms and distribution characteristics in the sediment and soil of the water-level-fluctuating zone in the main stream of the Three Gorges Reservoir. *Environ Sci*. 39(9): 4161-4168
250. Bashir S, Salam A, Chhajro MA, Fu QL, Khan MJ, Zhu J, Shaaban M, Kubar KA, Ali U, Hu HQ. 2018. Comparative efficiency of rice husk derived biochar (RHB) and steel slag (SS) on cadmium (Cd) mobility and its uptake by chinese cabbage in highly contaminated soil. *Int J Phytoremediat*. 20(12): 1221-1228.
251. Salam Abdus, Bashir Saqib, Khan Imran, Muhammad SR, Chhajro AM, Feng XW, Zhu J, Hu HQ. Biochars immobilize Pb and Cu in naturally contaminated soil. *Environ Engineering Sci*. 35(12): 1349-1360
252. Jiang H, Huang YZ, Yang XW, Huang YC, Liu Y, Hu RG, Hu HQ, Xiong SL, et al. 2018. Effects of exogenous melatonin on seed germination of rice under As<sup>3+</sup> stress. *Asian J Ecotoxicol*. 13(1): 229-240
253. Zhong XX, Wang T, Wang K, Gao RL, Yue XL, Liu YH, Hu HQ. 2018. Impacts of phosphorus acid concentration and pyrolysis temperature on structure and property of biochar. *J Natural Sci Hunan Normal Univ*. 41(1): 48-53
254. Xu FL, Hu HQ, Zhu J, Fu QL. 2018. Identification of Cd accumulation and translocation ability for the root of 20 rice cultivars. *J Agri Food Develop*. 4: 10-16
255. Huang YZ, Jiang H, Wang N, Liu Y, Hu HQ. 2018. Effects of exogenous melatonin on the growth of rice seedlings under As stress. *J Ecology*, 37(6): 1738-1743
256. Zhang ZY, Hu HQ, Wan CY, Peng JH, Xu FL, Shi F. 2018. Lateral and longitudinal variation in phosphorus fractions in surface sediment and adjacent riparian soil in the Three Gorges Reservoir, China. *Environ Sci Pollut Res*. 25(31): 31262-31271
257. Fan J, Wan HY, Wan R, Xia PL, Hu HQ. 2018. Growth and physiological characteristics of flue-cured tobacco (*Nicotiana Tabacum* L.) under selenate-Se stress. *Comm Soil Sci Plant Anal*. 49(18): 2238-2246
258. Wen YM, Su KC, Wang J, You JW, Ye L, Hu HQ. 2018. The amounts of seed sowing and fertilizer affect yield and nutrients uptake of ratooning rice "Xinliangyou 233". *Chinese Agricultural Science Bulletin*. 34(29): 1-7
259. Salam A, Bashir S, Khan I, Hussain Q, Gao RL, Hu HQ. 2019. Biochar induced Pb and Cu immobilization, phytoavailability attenuation in Chinese cabbage and improved biochemical properties in naturally co-contaminated soil. *J Soils Sediments*. 19(5): 2381-2392
260. Xu FL, Zhu J, Zhang BS, Fu QL, Chen JZ, Hu HQ, Huang QY. 2019. Sorption and immobilization of Cu and Pb in a red soil (Ultisol) after different long-term fertilizations. *Environ Sci Pollut Res*. 26: 1716-1722
261. Gao RL, Wang Q, Liu YH, Zhu J, Deng YJ, Fu QL(\*), Hu HQ(\*). Co-pyrolysis biochar derived from rape straw and phosphate rock: carbon retention, aromaticity and Pb removal capacity. *Energy and Fuels*. 33(1): 413-419
262. Salam A, Shaheen SM(\*), Bashir S, Khan I, Wang Jianxu, Rinklebe J, Rehman F U, Hu HQ(\*). 2019. Rice



- straw- and rapeseed residue-derived biochars affect the geochemical fractions and phytoavailability of Cu and Pb to maize in a contaminated soil under different moisture content. *J Environ Manage.* 237: 5-14
263. Bashir S, Salam A, Rehman M, Khan S, Gulshan AB, Iqbal J, Shaaban M, Mehmood S, Zahra A, Hu HQ(\*). 2019. Effective role of biochar, zeolite and steel slag on leaching behavior of Cd and its fractionations in soil column study. *Bullet Environ Contamin Toxicol.* 102: 567-572
264. Gao RL, Fu QL(\*), Hu HQ(\*), Wang Q, Liu YH, Zhu J. 2019. Highly-effective removal of Pb by co-pyrolysis biochar derived from rape straw and orthophosphate. *Journal of Hazardous Materials.* 371: 191-197.
265. Huang GY, Gao RL, You JW, Zhu J, Fu QL, Hu HQ(\*). 2019. Oxalic acid activated phosphate rock and bone meal to immobilize Cu and Pb in mine soils. *Ecotoxicology and Environmental Safety.* 174: 401-407
266. Zhu J, Fu QL, Qiu GH, Liu YR, Hu HQ(\*), Huang QY, Violante A. 2019. Influence of low molecular weight organic ligands on the sorption of heavy metals by soil constituents: A review. *Envir Chem Letters.* 17(3): 1271-1280
267. Zou T, Zheng J, Huang QY(\*), Hu HQ, Huang WD, Jin YH, Li SF. 2019. Effects of in situ phytoremediation of heavy metal contaminated soils on microbial diversity and enzyme activities. *J Environ Protect Ecol.* 20(1): 74-82
268. Salam A, Bashor S, Khan I, Hu HQ. 2019. Two years impacts of rapeseed residue and rice straw biochar on Pb and Cu immobilization and revegetation of naturally co-contaminated soil. *Applied Geochem.* 105: 97-104
269. Yang YQ, Fu QL(\*), Hu HQ, 2019. Water management of alternate wetting and drying reduces the accumulation of arsenic in brown rice- As dynamic study from rhizosphere soil to rice. *Ecotoxicology and Environmental Safety.*
270. Umeed A, S Bashir, M Shaaban, Zhou XP, Gao RL, Zhu J, Fu QL, Hu HQ(\*). 2019. Influence of various passivators for nickel immobilization in contaminated soil of China. *Envir Engineering Sci.* 36(11): 1396-1403
271. Umeed A, Hu HQ(\*). 2019. Effect of rice straw, biochar and calcite on maize plant and Ni bio-availability in acid Ni contaminated soil. *J Environ Management.* 259 : 109674. Doi:10.1016/j.jenvman.2019.109674
272. Xing ZQ, Xi RZ, Yang YQ, Zhu J, Hu HQ, Fu QL(\*). 2019. Effects of urea and ammonium sulfate on N<sub>2</sub>O release pathway in an alkaline paddy soil. *J Southern Agri.* 50(11): 2429-2435
273. Zhou XP, Huang GY, Liang D, Liu YH, Yao SY, Umeed A, Hu HQ(\*). 2020. Influence of nitrogen forms and application rates on the phytoextraction of copper by castor bean (*Ricinus communis* L.). *Environ Sci Pollut Res.* 27: 647-656. Doi: 10.1007/s11356-019-06768-6
274. Ren C, Qi YB, Huang GY, Yao SY, You JW, Hu HQ(\*). 2020. Contributions of root cell wall polysaccharides to Cu sequestration in castor (*Ricinus communis* L.) exposed to different Cu stress. *J Environ Sci.* 88: 209-216
275. Gao RL, Xiang L, Hu HQ, Fu QL(\*), Zhu J, Liu YH, Huang GY. 2020. High-efficiency removal capacities and quantitative sorption mechanism of Pb by oxidized rape straw biochars. *Sci. Total Environ.* 699,134262
276. Umeed Ali, Muhammad Shaaban, Saqib Bashir, Ruili Gao, Qingling Fu, Hongqing Hu(\*). 2020. Rice straw, biochar and calcite incorporation enhance nickel (Ni) immobilization in contaminated soil and Ni removal capacity. *Chemosphere.* 244: UNSP125418. doi: 10.1016/j.chemosphere.2019.125418
277. Hu Chao, Hu HQ(\*), Tang YF, Dai YJ, Wang ZF, Yan R. 2020. Comparative study on adsorption and immobilization of Cd(II) by rape component biomass. *Environ Sci & Pollut Res.* 27: 8028-8033

278. Hu Chao, Hu HQ(\*), Song MD, Tan J, Huang GY, Zuo JC. 2020. Preparation, characterization, and Cd(II) sorption of/on cysteine-montmorillonite composites synthesized at various pH. *Environ Sci & Pollut Res.* 27: 10599-10606. Doi: 10.1007/s11356-019-07550-4
279. Yang YQ, Hu HQ, Fu QL(\*), Xing ZQ, Chen XY, Zhu J. 2020. Comparative effects on arsenic uptake between iron (hydro)oxides on root surface and rhizosphere of rice in an alkaline paddy soil. *Environ Sci & Pollut Res.* 27: 6995-7004
280. Bashir S, Umeed A, Muhammad S, Allah BG, Iqbal J, Khan A, Husain A, Ahmed N, Mehmood S, Kamran M, Hu HQ. 2020. Role of sepiolite for cadmium(Cd) polluted soil restoration and spinach growth in wastewater irrigated agricultural soil. *J Environ Manage.* 258: 110020
281. Zhou XP, Wang SL, Liu YH, Huang GY, Yao SY, Hu HQ(\*). Coupling phytoremediation efficiency and detoxification to assess the role of P in the Cu tolerant *Ricinus communis* L. *Chemosphere.* 247:125965. Doi: 10.1016/j.chemosphere.2020.125965
282. Zhu PF, Zhu JR, Pan JY, Xu WW, Shu LZ(\*), Hu HQ(\*), Wu Y, Tang CP. 2020. Biochar improves the growth performance of maize seedling in response to antimony stress. *Water, Air, and Soil Pollution.* 231: 154
283. Zhang ZY, Hu HQ, Lu ZY, Zhu W, Zhang T, Zou X. 2020. Effects of periodic flooding and drying on the soil nitrogen formations in the water-level-fluctuation zone. *J Hydroecology.* 41(4): 63-71
284. Liu SJ, Huang YZ(\*), Bao QL, Huang YC, Zhang SN, Han N, Liu YR, Hu HQ. 2020. Effects of exogenous spermidine on seed germination and As uptake and accumulation of rice under As<sup>5+</sup> stress. *Environmental Science.* 41(3): 1505-1512
285. Bashir S, Hussain Q, Zhu J, Fu QL, Houben D, Hu HQ. 2020. Efficiency of KOH modified rice straw derived biochar on cadmium mobility, bioaccessibility and bioavailability risk index in red soil. *Pedosphere.* 30(6): 874-882
286. Huang GY, Zhou XP, Guo GG, Ren C, Rizwan MS, Islam Md Shoffikul, Hu HQ. 2020. Variation of dissolved organic matter and Cu fractions in rhizosphere soil induced by the root activities of castor bean. *Chemosphere.* 254: 126800
287. Gao RL, Hu HQ, Fu QL(\*), et al. Remediation of Pb, Cd and Cu contaminated soil by co-pyrolysis biochar derived from rape straw and orthophosphate: speciation transformation, risk evaluation and mechanism inquiry. *Sci Total Environ.* 730: 139119
288. Xu Peidong, Liu YR, Zhu J, Shi L, Fu QL, Chen JZ, Hu HQ, Huang QY. 2020. Influence mechanisms of long-term fertilizations on the mineralization of organic matter in Ultisol. *Soil & Tillage Res.* 201: 104594
289. Salam A, Bashir S, Khan I, Hu HQ. 2020. Biochar production and characterization as a measure for effective rapeseed residue and rice straw management: an integrated spectroscopic examination. *Biomass Conversion and Biorefinery.* <https://doi.org/10.1007/s13399-020-00820-z>
290. Yang YQ, Hu HQ, Fu QL(\*), Zhu J, Zhang X, Xi RZ. 2020. Phosphorus regulates As uptake by rice via releasing As into soil porewater and sequestering it on Fe plaque. *Sci Tot Environ.* 738: 139869
291. Xing ZQ, Zuo JC, Fu QL, Hu HQ, Zhu J. 2020. Birnessite increases N<sub>2</sub>O release rate and amoA gene abundance of ammonia-oxidizing bacteria in red paddy soil. *J. Plant Nutr Ferti.* 26(6): 1156-1164
292. Fu QL, Xi RZ, Zhu J, Hu HQ, Xing ZQ, Zuo JC. 2020. The relative contribution of ammonia oxidizing bacteria and archaea to N<sub>2</sub>O emission from two paddy soils with different fertilizer N sources: A microcosm study. *Geoderma.* 375: 114486
293. Wen YM, You JW, Zhu J, Hu HQ(\*), Gao JS(\*), Huang J. 2020. Long-term green manure application improves soil K availability in red paddy soil of subtropical China. *J Soils Sediments.* 21: 63-72. Doi: 10.1007/s11368-020-02768-z

294. Zuo JC, Hu HQ, Fu QL(\*), Zhu J, Xing ZQ. 2020. Biological-chemical comprehensive effects of goethite addition on nitrous oxide emissions in paddy soils. *J Soils Sediments*. 20: 3850-3590
295. Huang GY, You JW, Zhou XP, Ren C, Md Shoffikul Islam, Hu HQ(\*). 2020. Effects of low molecular weight organic acids on Cu accumulation by castor bean and soil enzyme activities. *Ecotoxi Environ Safety*. 203: 110983
296. You JW, Wang J, Hu HQ(\*), Wang H, Ye L. 2020. Effects of straw returning on soil organic carbon components in ratoon rice field. *J Plant Nutri Fertilizer*. 26(8): 1451-1458
297. Xu PD, Zhu J(\*), Wang Hui, Shi Lei, Zhuang Yi, Fu QL, Chen JZ, Hu HQ, Huang QY. 2021. Regulation of soil aggregate size under different fertilization on dissolved organic matter, cellobiose hydrolyzing microbial community and their roles in organic matter mineralization. *Sci Tot Environ*. 755: 142595
298. Rizwan M S, Imtiaz M, Zhu J, Yousaf B, Hussain M, Ali L, Ditta A, Ihsan M Z, Huang GY, Ashraf M, Hu HQ(\*). 2021. Immobilization of Pb and Cu by organic and inorganic amendments in contaminated soil. *Geoderma*. 385, 114803
299. Jiang L, Zhu J(\*), Wang H, Fu QL, Hu HQ, Huang QY. 2021. Spatial variability of the molecular composition of humic acids from subtropical forest soils. *J Soils Sediments*. 21: 766-774
300. Md Shoffikul Islam, Song ZT, Gao RL, Fu QL, Hu HQ(\*). 2021. Cadmium, lead, and zinc immobilization in soil by rice husk biochar in the presence of low molecular weight organic acids. *Environ Techno*. Doi: 10.1080/09593330.2021.1883743
301. Md Shoffikul Islam, Gao RL, Gao JY, Song ZT, U Ali, Hu HQ(\*). 2021. Immobilization of cadmium, lead, and zinc in soil by rice husk biochar in the presence of citric acid. *Intl J Environ Sci & Techno*. Doi:10.1007/s13762-021-03185-6
302. Song ZT, Zuo JC, Hu HQ(\*). 2021. Effect of citric acid and phosphorus coexistence on cadmium adsorption by soil. *Environmental Science*, 42(3): 1152-1157
303. Tang JQ, Zhang X, Huang GY, Hu HQ(\*). 2021. Effect of water regimes on Pb and Cd immobilization by biochar in contaminated paddy soil. *Environmental Science*, 42(3): 1185-1190
304. Zhang X, Yang YQ, Fu QL(\*), Hu HQ, Zhu J, Liu MX. 2021. Comparing effects of ammonium and nitrogen on arsenic accumulation in brown rice and its dynamics in soil-plant system. *J Soils Sediments*. Doi: 10.1007/s11368-021-02938-7
305. Ali Umeed, Shaaban M, Bashir S, Chhajro A, Li Q, Rizwan MS, Fu QL, Zhu J, Hu HQ\*. 2021. Potential of organic and inorganic amendments for stabilizing nickle in acidic soil, and improving the nutritional quality of spinach. *Environ Sci Pollut Res*. Doi: 10.1007/s11356-021-14611-0
306. Liu MX, Xing ZQ, Zhang X, Fu QL\*, Zhu J, Hu HQ, Zhao HT. 2021. *China Soil and Fertilizer*. (03): 110-118
307. Yang YQ, Rao XF, Zhang X, Liu MX, Fu QL(\*), Zhu J, Hu HQ. 2021. Effect of P/As molar ratio in soil porewater on competitive uptake of As and P in As sensitive and tolerant genotypes. *Sci Tot Environ*. 797, 149185
308. Zhuang Y, Zhu J, Shi L, Fu QL, Hu HQ, Huang QY. 2022. Influence mechanisms of iron, aluminum and manganese oxides on the mineralization of organic matter in paddy soil. *J Environ Manage*. 301, 113916
309. Abdelrhman F, Gao JY, Ali U, Wan N, Hu HQ\*. 2022. Assessment of goethite-combined/modified biochar for cadmium and arsenic remediation in alkaline paddy soil. *Environ Sci Pollut Res*. Doi: 10.1007/s11356-021-17968-4
310. Abdelrhman F, Gao JY, Ali U, Wan N, Sharaf A, Hu HQ(\*). 2022. Assessment of goethite modified biochar on the immobilization of cadmium and arsenic and uptake by Chinese cabbage in paddy soil. *Archives Agron Soil Sci*. Doi: 10.1080/03650340.2022.2050370

**311.**Liu Mengyuan, Zhu Jun(\*), Yang Xin, Fu Qingling, Hu HQ, Huang QY. 2022. Biochar produced from the straw of common crops simultaneously stabilizes soil organic matter and heavy metals. *Sci. Total Environ.* 828, 154494

据百度学术，截止 2018 年 9 月（258 篇），SCI 收录 80 篇，最高被引 160 次，中文最高被引 184 次，总被引 2580 次，H 指数 27，G 指数 40。

据 Publons，截至 2022 年 3 月 15 日（311 篇），SCI 论文 124 篇，最高被引 111 次，总被引 2110 次，H 指数 27。

据 Web of Science，截至 2022 年 3 月 15 日（311 篇），出版物论文 227 篇，最高被引 139 次，总被引 2958 次，H 指数 30。

Phone: 13871289448

Fax: 86 27 87288618

e-mail: [hqhu@mail.hzau.edu.cn](mailto:hqhu@mail.hzau.edu.cn); or: [hqhu04@126.com](mailto:hqhu04@126.com); or [13871289448@139.com](mailto:13871289448@139.com)