

个人简历

马义兵，男，1957年生，博士，博士生导师，泰山学者。现任澳门科技大学教授，澳门环境研究院院长，澳门海岸带生态环境国家野外科学观测研究站站长。曾任中国农业科学院农业资源与农业区划研究所研究员，国家土壤肥力和肥料效应监测站网主任，亚洲重金属研究中心主任。农业部公益性农业行业科研专项“主要农产品产地土壤重金属污染阈值研究与防控技术集成示范”项目首席，国家“十三五”“农业面源和重金属污染农田综合防治与修复技术研发”重点专项项目首席。自1982年以来，一直从事土壤环境中重金属和养分研究，包括土壤中重金属的形态，有效性/毒害及其可预测性模型研究；土壤重金属环境风险评价和污染土壤修复技术产品研发；以及固体废弃物资源化利用和新型肥料研制。主持国家公益性农业行业科研专项项目，国家973、863计划、支撑计划课题和国家基金委面上及重大国际合作项目等。参与我国农田重金属污染防治的有关管理规范 and 规划的制定。共发表学术论文320多篇，其中EI论文14篇，SCI源刊论文200多篇，被引用9000多次（h-指数45）。国际会议论文44篇。合著中英文著作和论文集9本。国际合作项目技术总结报告（英文）11个。国家发明专利19项。国家和行业标准11项。获国家或省部级科技进步奖8项。

教育经历

- 1978年—1982年，北京农业大学，土化系，本科/学士
- 1985年—1987年，北京农业大学，土化系，研究生/硕士（在职）
- 1993年—1997年，澳大利亚 La Trobe 大学，农业学院，博士

研究工作经历

- 1982年—1987年，北京农业大学土化系，助教
- 1987年—1992年，北京农业大学土化系，讲师
- 1988年—1989年，澳大利亚 La Trobe 大学农业学院，访问学者
- 1992年—1993年，北京农业大学土壤与土地系，副教授、系副主任
- 1996年—1998年，澳大利亚 La Trobe 大学农业学院，研究助理
- 1998年—2002年，澳大利亚 DEBCO 集团公司研发部，研究员
- 2002年—2004年，澳大利亚联邦科学和工业研究组织（CSIRO），研究科学家
- 2004年—2012年，中国农业科学院农业资源与农业区划研究所研究员(杰出人才引进)，澳大利亚联邦科学和工业研究组织（CSIRO）研究科学家（兼职）

- 2013年—2019年，中国农业科学院农业资源与农业区划研究所研究员，山东济南大学教授，泰山学者。
- 2019年—现在，澳门科技大学教授，澳门环境研究院院长，澳门海岸带生态环境国家野外科学观测研究站站长。

学术活动与兼职（包括曾经兼职）

1. 国际痕量元素生物地球化学委员会委员（ICOBTE）
2. 世界环境毒理与化学学会科学委员会委员（SETAC）
3. 中国环境重金属研究网（MERC）成员
4. 《生态毒理学报》（Asian Journal of Ecotoxicology）编委
5. 中国农村专业技术协会第三届理事会专家委员会副主任委员
6. 农业部农业环境和气候变化重点实验室学术委员会委员
7. 农业部农业环境污染突发事件应急委员会委员
8. 农业农村部农用地污染防治专家指导组组长
9. 农业农村部耕地质量建设专家指导组成员
10. 中国科学院土壤环境与污染修复重点实验室学术委员会委员
11. 中国科学院大学“环境土壤学”首席教授
12. 全国专业标准化技术委员会委员
13. 财政部农业部“湖南重金属污染耕地修复及农作物种植结构调整试点”工作效果评估专家组副组长
14. 科学技术部国家重点专项“场地土壤污染成因与治理技术”总体专家组成员
15. 生态环境部“土壤污染状况详查”咨询专家组成员兼报告编写组副组长
16. 全国人大环境与资源保护委员会“土壤污染防治法”立法咨询专家
17. 联合国粮农组织/世行高级咨询专家。

发表论文（300多篇，列出主要SCI文章）

- (1) Ma, Y. B. and N. C. Uren 1995. *Application of a new fractionation scheme for heavy metals in soils*. Commun. Soil Sci. Plant Anal. 26 (19-20): 3291-3303.
- (2) Ma, Y. B. and N. C. Uren 1996. *The effects of cropping corn on the extractability of zinc added to a calcareous soil*. Plant Soil 181: 221-226.
- (3) Ma, Y. B. and N. C. Uren 1997. *The effects of temperature, time, and cycles of drying and rewetting on the extractability of zinc added to soil*. Geoderma 75: 89-97.

- (4) Ma, Y. B. and N. C. Uren 1997. *The fate and transformation of zinc added to soils*. Aust. J. Soil Res. 35: 727-738.
- (5) Ma, Y. B. and J. F. Liu 1997. *Adsorption kinetics of zinc in a calcareous soil as affected by pH and temperature*. Commun. Soil Sci. Plant Anal. 28 (13-14): 1117-1126.
- (6) Ma, Y. B. and N. C. Uren 1998. *Transformation of heavy metals added to soils - application of a new sequential extraction procedure*. Geoderma 84: 157-168.
- (7) Ma, Y. B. and N. C. Uren 1998. *Dehydration, diffusion and entrapment of zinc in bentonite*. Clays and Clay Minerals 46: 132-138.
- (8) Ma, Y. B. and D. G. Nichols 2004. *Phytotoxicity and detoxification of fresh coir dust and coconut shell*. Commun. Soil Sci. Plant Anal. 31 (Nos 1 &2): 205-218.
- (9) Nolan A. L., Y. B. Ma, E. Lombi and M. J. McLaughlin 2004. *Measuring labile Cu in soil using stable isotope dilution and isotope ratio analysis by ICP-MS*. Anal Bioanal Chem 380 (Nos 5-6): 789-797.
- (10) Ma, Y. B., E Lombi, A. L. Nolan and M. J. McLaughlin 2006. *Short-term natural attenuation of copper in soils: effect of time, temperature and soil characteristics*. Environmental Toxicology and Chemistry 25: 652-658.
- (11) Chen, S. B. Y. G. Zhu, Y. B. Ma, G. McKay 2006. *Effect of bone char application on Pb Bioavailability in a Pb-contaminated soil*. Environmental Pollution 139: 433-439.
- (12) Ma, Y. B., E Lombi, A. L. Nolan, M. J. McLaughlin 2006. *Determination of labile Cu in soils and isotopic exchangeability of complexes*. European J. Soil Sci. 57: 147-153.
- (13) Chen, S. B., Y. G. Zhu, Y. B. Ma 2006. *The effect of granular size of rock phosphate amendment on metals immobilization in contaminated soil*. Journal of Hazardous Materials B134: 74-79.
- (14) Oliver, I. W., Y. B. Ma, E. Lombi, A. L. Nolan, M. J. McLaughlin 2006. *Stable isotope techniques for assessing labile Cu in soils: Development of an L value procedure, its application and reconciliation with E values*. Environ. Sci. & Technol. 40: 3342-3348.
- (15) Liang, Y. C., Y. G. Zhu, Y. Xia, Z. J. Li, Y. B. Ma 2006. *Iron plaque enhances phosphorus uptake by rice (Oryza sativa) growing under varying phosphorus and iron*. Annals of Applied Biology 149: 305-312.
- (16) Ma, Y. B. and N. C. Uren 2006. *Effect of aging on the availability of zinc added to a calcareous clay soil*. Nutrient Cycling in Agroecosystems 76(1): 11-18.
- (17) Ma, Y. B., E. Lombi, I. W. Oliver, A. L. Nolan, M. J. McLaughlin 2006. *Long-term Aging of Copper Added to Soils*. Environ. Sci. Technol. 40(20): 6310-6317.
- (18) Chen, S. B. M. G. Xu, Y. B. Ma, J. C. Yang 2007. *Evaluation of different phosphate amendments on metals availability in contaminated soil*. Ecotoxicology and Environmental Safety 67: 278-285.
- (19) Lofts, S., P. M. Chapman, R. Dwyer, et al. 2007. *Critical loads of metals and other trace elements to terrestrial environments*. Environ. Sci. Technol. 41(18): 6326-6331.
- (20) Luo, L., S. Z. Zhang, Y. B. Ma, P. Christie 2008. *Facilitating Effects of Metal Cations on Phenanthrene Sorption in Soils*. Environ. Sci. & Technol. 42: 2414-2419.

- (21) Luo, L., S. Z. Zhang, Y. B. Ma 2008. *Effects of various fractions of soil on phenanthrene sorption by two soils*. Chemosphere 72: 891–896.
- (22) Tang, X., J. M. Li, Y. B. Ma, X. Hao, X. Y. Li 2008. *Phosphorus efficiency in long-term (15 years) wheat-maize cropping systems with various soil and climate conditions*. Field Crops Research 108(3): 231-237.
- (23) Zhou, S. W., M. G Xu, Y. B. Ma, S. B. Chen, D. P. Wei 2008. *Aging mechanism of copper added to bentonite*. Geoderma 147: 86-92.
- (24) Wendling, L.A., Y.B. Ma, J. K. Kirby, M. J. McLaughlin 2009. *A Predictive Model of the Effects of Aging on Cobalt Fate and Behaviour in Soil*. Environ. Sci. & Technol. 43(1): 135-141.
- (25) Nolan, A. L., Y. B. Ma, E. Lombi, M. J. McLaughlin 2009. *Speciation and isotopic exchangeability of Ni in soil solution*. Journal of Environmental Quality 38: 485–492.
- (26) Chen, S. B., Y. B. Ma, Y. Z. Huang 2009. *Can phosphate compounds be used to reduce the plant uptake of Pb and resist the Pb stress in Pb-contaminated soils?* Journal of Environmental Sciences 21: 360-365.
- (27) Ma, Y. B., J. M. Li, X. Y. Li, X. Tang, Y. C. Liang, S. M. Huang, B. R. Wang, H. Liu, X. Yang 2009. *Phosphorus accumulation and depletion in soils in wheat-maize cropping systems: modeling and validation*. Field Crops Research 110(3): 207-212.
- (28) Wang, X. D., Y. B. Ma, L. Hua, M. J. McLaughlin 2009. *Identification of hydroxyl copper toxicity to barley root elongation in solution culture*. Environmental Toxicology and Chemistry 28 (3): 662-667.
- (29) Lei Luo, Yibing Ma, Shuzhen Zhang, Dongpu Wei, Yongguan Zhu 2009. *An inventory of heavy metal inputs to agricultural soils in China*. Journal of Environmental Management 90: 2524-2530.
- (30) Bo Li, Xuan Zhang, Xuedong Wang, Yibing Ma. *Refining a biotic ligand model for nickel toxicity to barley root elongation in solution culture*. Ecotoxicology and Environmental Safety 2009, 72: 1760-1766.
- (31) Shi-Wei Zhou, Yi-Bing Ma, Ming-Gang Xu. 2009. *Ageing of added copper in bentonite without and with humic acid*. Chemical Speciation and Bioavailability. 21(3): 175-184.
- (32) Tang, X., Y .B. Ma, X. Y. Hao, X. Y. Li, J. M. Li, S. M. Huang, X. Y. Yang. 2009. *Determining critical values of soil Olsen-P for crop yields using long-term experiments under various soil and climate conditions in China*. Plant and Soil 323: 143-151.
- (33) Zhao, Linping, Ma, Yibing, Liang, Guoqing, Li, Shutian and Wu, Lishu. 2009. *Phosphorus Efficacy in four Chinese long-term experiments with different soil properties and climate characteristics*. Commun. Soil Sci. Plant Anal. 40(19-20): 3121-3138.
- (34) Yingchun Wang, Enli Wang, Daolong Wang, Shaomin Huang, Yibing Ma, Chris J Smith, Ligang Wang. 2010. *Crop productivity and nutrient use efficiency as affected by long-term fertilisation in North China Plain*. Nutr Cycl Agroecosyst. 86: 105-119.

- (35) Chen Shibao, Ma Yibing, Chen Yi, Wang Liqun, Guo Haitao. 2010. *Comparison of Pb (II) immobilized by bone char meal and phosphate rock: characterization and kinetic study*. Arch. Environ. Con. Tox. 50: 24-32.
- (36) Xueyan Guo, Lei Luo, Yibing Ma, Shuzhen Zhang. 2010. *Sorption of polycyclic aromatic hydrocarbons on particulate organic matters*. Journal of Hazardous Materials 173: 130–136
- (37) Xueyan Guo, Yibing Ma, Xuedong Wang, Shibao Chen. 2010. *Reevaluating the effects of organic ligands on copper toxicity to barley root elongation in culture solution*. Chemical Speciation and Bioavailability 22: 51-59.
- (38) Xiaofang Li, Jinwei Sun, Min Qiao, Yibing Ma, and Yong-Guan Zhu, 2009. *Copper toxicity thresholds in Chinese soils based on substrate-induced nitrification assay*. Environmental Toxicology and Chemistry 29: 294-300
- (39) Bo Li, Yibing Ma, Mike J. McLaughlin, Jason Kirby, Gill Cozens and Jifang Liu. 2010. *Influences of soil properties and leaching on copper toxicity to barley root elongation*. Environmental Toxicology and Chemistry 29: 835-842
- (40) Li XF, Huang YZ, Ma YB, Sun JW, Cui HJ, 2010. *Leaching impacts Ni toxicity threshold differently among soils but increases its predictability according to nitrification assay*. J Soils Sed 10: 579-589
- (41) Chen SB, Ma YB, Chen L, Huang YZ, Xiao K. 2010. *Adsorption of aqueous Cd²⁺, Pb²⁺, Cu²⁺ ions by nano-hydroxyapatite: Single- and multi-metal competitive adsorption study*. Geochem. J. 44 (3): 233-239
- (42) Jie Liu, Hua Liu, Shaomin Huang, Xueyun Yang, Boren Wang, Xiuying Li, Yibing Ma. 2010. *Nitrogen efficiency in long term wheat-maize cropping systems under diverse field sites in China*. Field Crops Research 118: 145-151.
- (43) Guo, X., Zuo YB, Wang BR, Li JM, Ma YB. 2010. *Toxicity and accumulation of copper and nickel in maize plants cropped on calcareous and acidic field soils*. Plant Soil 333: 365 – 373.
- (44) Yang JX, Guo HT, Ma YB, Wang LQ, Wei DP, Hua L. 2010. *Genotypic variations in the accumulation of Cd exhibited by different vegetables*. J Environ Sci 22(8): 1246-1252.
- (45) Wang Xuedong, Li Bo, Ma Yibing, Hua Luo. 2010. *Development of a biotic ligand model for acute zinc toxicity to barley root elongation*. Ecotoxicology and Environmental Safety 73: 1272-1278
- (46) Bo Li, Hongtao Zhang, Yibing Ma, Mike J. McLaughlin. 2011. *Influences of soil properties and leaching on nickel toxicity to barley root elongation*. Ecotoxicology and Environmental Safety 74: 459-466
- (47) Chen SB, Ma YB, Lombi E, McLaughlin MJ. 2011. *Application of Cu-65 dilution techniques for assessing L and E- values for Cu in long-term biosolid applied soils*. Acta Chimica Sinica 69(4): 459-465
- (48) Lei Luo, Chenyan Ma, Yibing Ma, Shuzhen Zhang, Mingqi Cui. 2011. *Sorption mechanism of cadmium by red mud*. Environ. Pollut. 2011, 159: 1108-1113
- (49) Xu Tang, Xiaojun Shi, Yibing Ma, Xiying Hao. 2011. *Phosphorus efficiency in a long-term wheat-rice cropping system in China*. Journal of Agricultural Science 149: 297-304

- (50) Shaomin Huang, Yibing Ma, Dejun Bao, Doudou Guo and Shuiqing Zhang. 2011. *Manures behave similar to superphosphate in phosphorus accumulation in long-term field soils*. Int. J. Plant Production 5(2): 135-146
- (51) Yang, Junxing, Liqun Wang, Dongpu Wei, Shibao Chen, Yibing Ma. 2011. *Foliar spraying and seed soaking of zinc fertilizers decreased cadmium accumulation in cucumber grown in Cd-contaminated soils*. Soil and Sediment Contamination 20(4): 400-410
- (52) Wang P, De Schampelaere KAC, Zhao FJ, Kopittke PM, Zhou DM, Lock K, Ma YB, Peijnenburg WJGM, McGrath SP. 2011. *Evaluation of an electrostatic toxicity model for predicting Ni²⁺ toxicity to barley root elongation in hydroponic cultures and in soils*. New Phytologist 192: 414-427
- (53) Li Q, Guo XY, Xu XH, Zuo YB, Wei DP, Ma YB. 2012. *Phytoavailability of copper, zinc, and cadmium in biosolid-amended calcareous soils*. Pedosphere 22: 254-262
- (54) Li JM, Gao JS, Liu J, Xu MG, Ma YB. 2012. *A predictive model for phosphorus accumulation in paddy soils with long-term inorganic fertilization*. Commun Soil Sci Plant Anal 43(13): 1823-1832
- (55) Tang X, Ellert BH, Hao XY, Ma YB, Nakonechny E, Li JM. 2012. *Temporal changes in soil organic carbon contents and $\delta^{13}C$ values under long-term maize - wheat rotation systems with various soil and climate*. Geoderma 183-184: 67-73
- (56) Li Q, Li JM, Cui XL, Wei DP, Ma YB. 2012. *On-farm assessment of biosolids effects on soil nitrogen and phosphorus*. Journal of Integrative Agriculture (formerly Agricultural Sciences in China (accepted)
- (57) Smolders E, Oorts K, Lombi E, Schoeters I, Ma YB, Sharyn Zrna S, McLaughlin MJ. 2012. *The availability of copper in soils historically amended with sewage sludge, manure, and compost*. J Environ Qual 41: 506-514.
- (58) Wang XD, Hua L, Ma YB. 2012. *A biotic ligand model predicting acute copper toxicity for barley (*Hordeum vulgare*): Influence of calcium, magnesium, sodium, potassium and pH*. Chemosphere 89: 89 - 95.
- (59) Ye Xinxin, Yibing Ma, Bo Sun. 2012. *Influence of soil type and genotype on Cd bioavailability and uptake by rice and implications for food safety*. Journal of Environmental Sciences, 24(9): 1647-1654.
- (60) Wang M, Chen L, Chen SB, Ma YB. 2012. *Alleviation of cadmium-induced root growth inhibition in crop seedlings by nanoparticles*. Ecotox Environ Saf 79: 48-54.
- (61) Kirby JK, McLaughlin MJ, Ma YB, Ajiboye B. 2012. *Aging effects on molybdate lability in soils*. Chemosphere 89: 876-883.
- (62) Chen ZF, Ying GG, Ma YB, Lai HJ, Chen F, Chang-Gui Pan CG. 2013. *Occurrence and dissipation of three azole biocides climbazole, clotrimazole and miconazole in biosolid-amended soils*. Science of the Total Environment 452-453: 377 - 383.
- (63) Ma YB, Lombi E, McLaughlin MJ, Oliver IW, Nolan AL, Oorts K, Smolders E. 2013. *Aging of nickel added to soils as predicted by soil pH and time*. Chemosphere 92: 962-968.

- (64) Zhang XQ, Wei DP, Li B, Ma YB, Huang ZB. 2013. *Importance of soil solution chemistry to nickel toxicity to barley root elongation*. *Chemical speciation and Bioavailability*. 25(3): 153-164
- (65) Liang ZF, Ding Q, Wei DP, Li JM, Chen SB, Ma YB. 2013. *Major controlling factors and predictable equations for Cd transfer factor involved in soil-spinach system*. *Ecotox Environ Saf* 93: 180–185
- (66) Tian QY, Zhang XX, Gao Y, Bai WM, Ge F, Ma YB, Zhang WH. 2013. *Wheat genotypes differing in aluminum tolerance differ in their growth response to CO₂ enrichment in acid soils*. *Ecology and Evolution* 3(6): 1440–1448.
- (67) Zhang XQ, Li JM, Li B, Ma YB, Huang ZB. 2013. *Evaluation the influence of soil solution chemistry on soluble nickel toxicity to bok choy*. *Advanced Materials Research* 750-752: 1441-1447.
- (68) Li B, Zhang HT, Ma YB, McLaughlin MJ. 2013. *Relationship between soil properties and phytotoxicity of copper and nickel to bok choy and tomato in Chinese soils*. *Environmental Toxicology and Chemistry*, 32 (10): 2372–2378.
- (69) Zhang XQ, Wei DP, Li B, Ma YB, Huang ZB. 2013. *The influence of soil solution properties on phytotoxicity of soil soluble copper in a wide range of soils*. *Geoderma*. 211–212: 1–7.
- (70) Chen AF, Ying GG, Ma YB, Lai HJ, Chen F, Pan CG. 2013. *Typical azole biocides in biosolid-amended soils and plants following biosolid applications*. *J Agric Food Chem* 61(26): 6198-6206.
- (71) We, B, Li LF, Zhang HN, Ma YB, Shan XQ; Zhang SZ. 2014, *Field study on the uptake and translocation of perfluoroalkyl acids (PFAAs) by wheat (Triticum aestivum L.) grown in biosolids-amended soils*. *Environ Poll* 184: 547–554.
- (72) Chen F, Ying GG, Ma YB, Chen ZF, Lai HJ, Peng FJ. 2014. *Field dissipation and risk assessment of typical personal care products TCC, TCS, AHTN and HHCB in biosolid-amended soils*. *Sci Total Environ* 470–471: 1078–1086.
- (73) Lai, HJ, Ying GG, Ma YB, Chen ZF, Chen F, Liu YS. 2014. *Field dissipation and plant uptake of benzotriazole ultraviolet stabilizers in biosolid-amended soils*. *Environ Sci - Processes & Impacts* 16(3): 558-566.
- (74) Lai HJ, Ying GG, Ma YB, Chen ZF, Chen F, Liu YS. 2014. *Occurrence and dissipation of benzotriazoles and benzotriazole ultraviolet stabilizers in biosolid-amended soils*. *Environ Toxicol Chem* 33(4): 761-767.
- (75) Jing Li, Yuanming Zheng, Yurong Liu, Yibing Ma, Hangwei Hu, Peng Cao, Juntao Wang, Jizheng He (2014) *Initial copper stress strengthens the resistance of soil microorganisms to a subsequent copper stress*. *Microbial Ecology* 67: 931–941
- (76) Xinxin Ye, Hongying Li, Yibing Ma, Liang Wu, Bo Sun (2014) *The bioaccumulation of Cd in rice grains in paddy soils as affected and predicted by soil properties*. *J Soils Sediments* 14:1407–1416.

- (77) Helian Li, Ronghui Qu, Chao Li, Weilin Guo, Xuemei Han, Fang He, Yibing Ma, Baoshan Xing. (2014) Selective removal of PAHs from soil washing effluents using biochars produced at different pyrolytic temperatures. *Bioresource Technology* 163: 193-198
- (78) Lei Luo, Chuang Xu, Yibing Ma, Lei Zheng, Lijuan Liu, Jitao Lv, Shuzhen Zhang (2014). Sulfur Speciation in an Arable Soil as Affected by Sample Pretreatments and Sewage Sludge Application, *Soil Sci. Soc. Am. J.* 78: 1615–1623.
- (79) Ningning Song, Xu Zhong, Bo Li, Jumei Li, Dongpu Wei, Yibing Ma (2014) Development of a multi-species biotic ligand model predicting the toxicity of trivalent chromium to barley root elongation in solution culture. *PLoS ONE* 9(8): e105174.
- (80) Bo Li, Jun-Xing Yang, Dong-Pu Wei, Shi-Bao Chen, Ju-Mei Li, Yi-Bing Ma (2014) Field Evidence of Cadmium Phytoavailability Decreased Effectively by Rape Straw and/or Red Mud with Zinc Sulphate in a Cd-Contaminated Calcareous Soil. *PLoS ONE* 9(10): e109967. doi:10.1371/journal.pone.0109967. (院选, 2)
- (81) Ding, Changfeng; Li, Xiaogang; Zhang, Taolin; Ma, Yibing; Wang, Xingxiang (2014) Phytotoxicity and accumulation of chromium in carrot plants and the derivation of soil thresholds for Chinese soils. *Ecotox Environ Saf* 108: 179-186.
- (82) Ningning Song, Yibing Ma, Yujie Zhao, Shirong Tang (2014) Elevated ambient carbon dioxide and *Trichoderma* inoculum could enhance cadmium uptake of *Lolium perenne* explained by changes of soil pH, cadmium availability and microbial biomass. *Applied Soil Ecology* 85 (2014) 56–64.
- (83) Bin Wang, Hua Liu, Xihe Wang, Jumei Li, Yibing Ma, Xingwang Ma (2015) Soil phosphorus accumulation model for an arid area of northwest China with 3-year rotation of wheat, maize and cotton. *Journal of Agricultural Science, Cambridge*, 153(7): 1247-1256
- (84) Helian Li, Ronghui Qu, Liangguo Yan, Weilin Guo, Yibing Ma (2015) Field study on the uptake and translocation of PBDEs by wheat (*Triticum aestivum* L.) in soils amended with sewage sludge. *Chemosphere* 123: 87–92
- (85) Fang-Jie Zhao, Yibing Ma, Yong-Guan Zhu, Zhong Tang, Steve P. McGrath (2015) Soil contamination in China: current status and mitigation strategies. *Environ. Sci. Technol.* 49 (2): 750–759
- (86) Junxing Yang, Liqun Wang, Dongpu Wei, Shibao Chen, Yibing Ma (2015) Red mud and rape straw as soil amendments can effectively decrease the extractability and bioavailability of cadmium in a calcareous soil. *Frontiers of Environmental Science & Engineering* 9(3): 419-428
- (87) Bo Li, Ji-fang Liu, Jun-xing Yang, Yi-bing Ma, Shi-bao Chen (2015) Comparison of phytotoxicity of copper and nickel in soils with different Chinese plant species. *Journal of Integrative Agriculture* 2015, 14(6): 1192–1201.
- (88) Ningning Song, Fangli Wang, Yibing Ma, Shirong Tang (2015) Using DGT to assess cadmium bioavailability to ryegrass as influenced by soil properties. *Pedosphere* 25(6): 825–833

- (89) Bin Wang, Jumei Li, Yi Ren, Xingwang Ma, Jingshu Xin, Xiyang Hao, Yibing Ma (2015) Validation of soil phosphorus accumulation models in main areas of wheat-maize crop rotation in China. *Field Crops Research* 178: 42–48
- (90) Xiaoqing Zhang, Jumei Li, Dongpu Wei, Bo Li, Yibing Ma (2015) Predicting soluble nickel in soils using soil properties and total nickel, *Plos One* 10(7): e0133920
- (91) Xiaoqing Wang, Dongpu Wei, Yibing Ma, Mike J. McLaughlin (2015) Derivation of soil ecological criteria for copper in Chinese soils. *Plos One* 10(7): e0133941.
- (92) Haiwei Liu, Haiyun Wang, Yibing Ma, Xinghua Ma, Yi Shi (2016) Role of transpiration and metabolism in translocation and accumulation of cadmium in tobacco plants (*Nicotiana tabacum* L.). *Chemosphere* 144: 1960-1965.
- (93) Changfeng Ding, Yibing Ma, Xiaogang Li, Taolin Zhang, Xingxiang Wang (2016) Derivation of soil thresholds for lead applying species sensitivity distribution: A case study for root vegetables. *Journal of Hazardous Materials* 303: 21-27
- (94) Jing Li, Jun-Tao Wang, Hang-Wei Hu, Yi-Bing Ma, Li-Mei Zhang, Ji-Zheng He (2016) Copper pollution decreases the resistance of soil microbial community to subsequent dry–rewetting disturbance. *Journal of Environmental Sciences* 39: 155-164
- (95) Ronghui Qu, Saiqi Zeng, Qiong Ding, Zhenfei Liang, Dongpu Wei, Jumei Li & Yibing Ma (2016): Factors and predictions for cadmium transfer from soils into tomato plants, *Communications in Soil Science and Plant Analysis* 47(13-14): 1612-1621
- (96) Helian Li, Yibing Ma, 2016. Field study on uptake, accumulation, translocation and risk assessment of PAHs in soil-wheat system with amendments of sewage sludge. *Science of the Total Environment* 560–561: 55–61
- (97) Shumin Li; Jumei Li; Changsheng Li; Shaomin Huang; Xiuying Li; Shengxiu Li; Yibing Ma (2016) Testing the RothC and DNDC models against long-term dynamics of soil organic carbon stock observed at cropping field soils in North China. *Soil & Tillage Research* 163: 290-297
- (98) Qinglin Chen; Xinli An; Hu Li; Jianqiang Su; Yibing Ma; Yongguan Zhu. 2016. Long-term field application of sewage sludge increase the abundance of antibiotic resistance genes in soil. *Environment International*, 2016, 92-93:1-10
- (99) Tao Lu, Jumei Li, Xiaoqing Wang, Yibing Ma, Erik Smolders, Nanwen Zhu, 2016, Derivation of ecological criteria for copper in land-applied biosolids and biosolid-amended agricultural soils. *Journal of Environmental Management* 183: 945-951
- (100) Chuang Xu, Songshan Wang, Zien Chen, Jitao Lv, Lei Luo, Jumei Li, Yibing Ma, 2016. Sulphur speciation and availability in long-term fertilized soil: evidence from chemical fractionation and S K-edge XANES spectroscopy, *European Journal of Soil Science*, 67, 666-675.
- (101) Hang-Wei Hu, Jun-Tao Wang, Jing Li, Jun-Jian Li, Yi-Bing Ma, Deli Chen and Ji-Zheng He, 2016. Field-based evidence for copper contamination induced changes of antibiotic resistance in agricultural soils. *Environmental Microbiology*. 18(11): 3896-3909
- (102) LIU Bin, CHEN Li, CHEN Shi-bao, LI Ning, ZHENG Han, JIN Ke, PANG Huan-cheng, MA Yi-bing, 2016. Subcellular Cd accumulation characteristic in root cell wall of rice

ultivars with different sensitivities to Cd stress in soil. *Journal of Integrative Agriculture* 2016, 15(9): 2114-2122

- (103) Zien Chen; Lei Luo; Diyi Xiao; Jitao Lv; Bei Wen; Yibing Ma; Shuzhen Zhang. Selected dark sides of biomass-derived biochars as environmental amendments. *J. Environ. Sci.* 2017, 54(4): 13-20.
- (104) Hangwei Hu, Jun-Tao Wang, Jing Li, Xiuzhen Shi, Yibing Ma, Deli Chen, Ji-Zheng He. Long-term nickel contamination increases the occurrence of antibiotic resistance genes in agricultural soils. *Environmental Science & Technology.* 2017, 51(2):790-800.
- (105) Ningning Song, Yibing Ma, 2017. The toxicity of HCrO_4^- and CrO_4^{2-} to barley root elongation in solution culture: pH effect and modelling. *Chemosphere* 171: 537-543.
- (106) Lei Luo, Yibing Ma, Rebecca L. Sanders, Satish C. B. Myneni, Chuang Xu, Jumei Li, Shuzhen Zhang, 2017. Phosphorus speciation and transformation in long-term fertilized soil: evidence from chemical fractionation and P K-edge XANES spectroscopy. *Nutrient Cycling in Agroecosystems*, 107(2): 215-226
- (107) Xi Zhang, Bao Jiang, Yibing Ma, 2017. Aging of Zn added to soils with a wide range of different properties: factors and modeling. *Environmental Toxicology and Chemistry* 36(11): 2925-2933.
- (108) Xuedong Wang, Dongxue Ji, Xiaolin Chen, Yibing Ma, Junxing Yang, Jingxing Ma, Xiaoxiu Li, 2017. Extended biotic ligand model for predicting combined Cu-Zn toxicity to wheat (*Triticum aestivum* L.): Incorporating the effects of concentration ratio, major cations and pH. *Environmental Pollution* 230: 210-217
- (109) Ronggui Tang, Changfeng Ding, Yibing Ma, Junsong Wang, Taolin Zhang and Xingxiang Wang, 2017. Time-dependent responses of earthworms to soil contaminated with low levels of lead as detected using ^1H NMR metabolomics. *RSC Adv.* 7, 34170-34181.
- (110) Zeng S, Li J, Wei D, Ma Y (2017) A new model integrating short- and long-term aging of copper added to soils. *PLoS ONE* 12(8): e0182944.
- (111) Ronggui Tang, Changfeng Ding, Yibing Ma, Junsong Wang, Taolin Zhang & Xingxiang Wang, 2017. Metabolic Responses of *Eisenia Fetida* to Individual Pb and Cd Contamination in Two Types of Soils. *Scientific Reports* 7, Article number: 13110
- (112) Jin Liu, Jianjun Yang, Barbara J. Cade-Menun, Yongfeng Hu, Jumei Li, Chang Peng, Yibing Ma, 2017. Molecular speciation and transformation of soil legacy phosphorus with and without long-term phosphorus fertilization: Insights from bulk and microprobe spectroscopy. *Scientific Reports* 7: 15354
- (113) Bo Li, Yibing Ma and Junxing Yang, 2017, Is the computed speciation of copper in a wide range of Chinese soils reliable? *Chemical Speciation and Bioavailability* 29: 205-215
- (114) Changfeng Ding; Yibing Ma; Xiaogang Li; Xingxiang Wang; Taolin Zhang. 2018. Determination and validation of soil thresholds for cadmium based on food quality standard and health risk assessment. *Science of the Total Environment* 619-620: 700-706
- (115) Hongna Zhang, Wen Wen, Yibing Ma, Xiaoyu Hu, Yali Wu, Lei Luo, Shuzhen Zhang, 2018. Determination of perfluoroalkyl acid isomers in biosolids, biosolids-amended soils and plants

using ultra-high performance liquid chromatography tandem mass spectrometry, *Journal of Chromatography B* 1072 (2018) 25-33

- (116) Bao Jiang, Dechun Su, Xiaoqing Wang, Jifang Liu, Yibing Ma, 2018. Field evidence of decreased extractability of copper and nickel added to soils in 6-year field experiments. *Frontiers of Environmental Science & Engineering*, 12:7.
- (117) Xi Zhang, Saiqi Zeng, Shibao Chen, Yibing Ma, Change of the extractability of cadmium added to different soils: aging effect and modeling. *Sustainability* 2018, 10, 885
- (118) Guohang Yang, Guangyun Zhu, Helian Li, Xuemei Han, Jumei Li, Yibing Ma, 2018. Accumulation and bioavailability of heavy metals in a soil-wheat/maize system with long-term sewage sludge amendments. *Journal of Integrative Agriculture* 2018, 17(8): 1861-1870
- (119) Guangyun Zhu, Bao Jiang, Guohang Yang, Jumei Li, Yibing Ma, 2018. Toxicity thresholds based on EDTA extractable nickel and barley root elongation in Chinese soils, *Int. J. Environ. Res. Public Health*, 15, 669
- (120) Xiaoqing Zhang, Jumei Li, Dongpu Wei, Bo Li, Yibing Ma, 2018. The solid-solution distribution of copper when added to soils: Influencing factors and models, *Journal of Soils and Sediments*. <https://doi.org/10.1007/s11368-018-1962-y>
- (121) Tang, Ronggui; Ding, Changfeng; Dang, Fei; Ma, Yibing; Wang, Junsong; Zhang, Taolin; Wang, Xingxiang, 2018. NMR-based metabolic toxicity of low-level Hg exposure to Earthworm. *Environmental Pollution* 239: 428-437
- (122) Xuedong Wang, Xiaoqi Meng, Xu Zhong, Xiao Pu, Yibing Ma, 2018. The Prediction of Combined Toxicity of Cu-Ni for Barley using an Extended Concentration Addition (CA) Model. *Environmental Pollution*. *Environmental Pollution* 242: 136-142
- (123) Xue-Mei Han, Hang-Wei Hu, Qing-Lin Chen, Li-Yuan Yang, He-Lian Li, Yong-Guan Zhu, Xiang-Zhen Li, Yi-Bing Ma, 2018. Antibiotic resistance genes and associated bacterial communities in agricultural soils amended with different sources of animal manures. *Soil Biology and Biochemistry* 126: 91-102
- (124) Qing-Lin Chen, Xin-Li An, Bang-Xiao Zheng, Yi-Bing Ma, Jian-Qiang Su, 2018. Long-term organic fertilization increased antibiotic resistome in phyllosphere of maize. *Science of the Total Environment*, 645: 1230-1237.
- (125) Runxiang Ni, Yibing Ma, 2018. Current inventory and changes of the input/output balance of trace elements in farmland across China. *PLoS ONE* 13(6): e0199460.
- (126) Jie Liu, Jumei Li, Yibing Ma, Yuehui Jia and Qiong Liang. 2018. Apparent Accumulated Nitrogen Fertilizer Recovery in Long-Term Wheat-Maize Cropping Systems in China. *Agronomy* 2018, 8, 293
- (127) Ronggui Tang, Changfeng Ding, Yibing Ma, Mengxue Wan, Taolin Zhang, Xingxiang Wang, Main controlling factors and forecasting models of lead accumulation in earthworms based on low-level lead-contaminated soils. *Environmental Science and Pollution Research* (2018) 25:23117-23124
- (128) Changfeng Ding, Shuyang Du, Taolin Zhang, Xiaogang Li, Yibing Ma, Xingxiang Wang. 2019, Changes of pH in paddy soils after flooding and drainage: modelling and validation. *Geoderma* 337: 511-513.

- (129) Jie Liu, Jumei Li, Yibing Ma, Enli Wang, Qiong Liang, Yuehui Jia, Tingshu Li and Guocheng Wang. Crop Productivity and Nitrogen Balance as Influenced by Nitrogen Deposition and Fertilizer Application in North China. *Sustainability* 2019, 11, 1347
- (130) Bao Jiang, Yibing Ma, Guangyun Zhu, Jun Li, A New Model Describing Copper Dose-Toxicity to Tomato and Bok Choy Growth in a Wide Range of Soils, the *International Journal of Environmental Research and Public Health*, 2019, 16, 264.
- (131) Shi-Wei Li, Helian Li, Xuemei Han, Yibing Ma, Development and validation of a model for whole course aging of nickel added to a wide range of soils using a complementary error function. *Geoderma* 348 (2019) 54-59
- (132) Meng, Xiaoqi; Wang, Xuedong*; Ma, Yibing; Wang, Ying, Development of a coupled model of quantitative ion character-activity relationships-biotic ligand model (QICARs-BLM) for predicting toxicity for data poor metals. *Journal of Hazardous Materials* 373 (2019) 620-629.
- (133) Ding, Jing; Zhu, Dong; Hong, Bin; Wang, Hong Tao; Li, Gang; Ma, Yi Bing; Tang, Yu Ting; Chen, Qing Lin. Long-term application of organic fertilization causes the accumulation of antibiotic resistome in earthworm gut microbiota. *Environment International* 124 (2019) 145-152.
- (134) Ronggui Tang, Xiaogang Li, Yongliang Mo, Yibing Ma, Changfeng Ding, Junsong Wang, Taolin Zhang, Xingxiang Wang. 2019. Toxic responses of metabolites, organelles and gut microorganisms of *Eisenia fetida* in a soil with chromium contamination. *Environmental Pollution*, 251, 910-920.
- (135) Jin Liu, Peng Sui, Barbara J. Cade-Menun, Yongfeng Hu, Jianjun Yang, Shaomin Huang, Yibing Ma. Molecular-level understanding of phosphorus transformation with long-term phosphorus addition and depletion in an alkaline soil. *Geoderma*, 2019, 353: 116-124.
- (136) Kun Li , Chenliang Cao, Yibing Ma, Dechun Su, Jumei Li, 2019. Identification of cadmium bioaccumulation in rice (*Oryza sativa* L.) by the soil-plant transfer model and species sensitivity distribution. *Science of the Total Environment* 692C (2019) 1022-1028.
- (137) Li, HL; Shao, FL; Qiu, YH; Ma, YB, 2019. Solubility, uptake, and translocation of BDE 47 as affected by DOM extracted from agricultural wastes. *Environmental Science and Pollution Research* 26(19): 19871-19878.
- (138) Zhao Rui, Yizhong Lv Yibing Ma* Jumei Li, Effectiveness and Longevity of Amendments to a Cadmium-Contaminated Soil, *Journal of Integrative Agriculture* 2020, 19(4): 1097-1104.
- (139) Li BO, Yang Junxing, Sun Wentao, Ma Yibing*, Shi Yi, Carbonization of plant residues decreased their capability of reducing hexavalent chromium in soils, *Water Air Soil Pollut* (2019) 230: 300.
- (140) Bao Jiang, Yibing Ma*, Guangyun Zhu, Jun Li, Prediction of soil copper phytotoxicity to barley root elongation by an EDTA extraction method *Journal of Hazardous Materials*, 2020, 389, 121869.

- (141) Lu Yang, Longhua Wu, Yibing Ma, Peter Christie, Yongming Luo, A field study of the fate of biosolid-borne silver in the soil-crop system, *Environmental Pollution, Environmental Pollution* 259 (2020) 113834.
- (142) Aman Ullah, Yibing Ma*, Jumei Li, Nazia Tahir, Babar Hussain, Effective Amendments on Cadmium, Arsenic, Chromium and Lead Contaminated Paddy Soil for Rice Safety, *Agronomy* 2020, 10, 359.
- (143) Yanan Wan, Bao Jiang, Dongpu Wei, Yibing Ma, Ecological criteria for zinc in Chinese soil as affected by soil properties, *Ecotoxicology and Environmental Safety* 194 (2020) 110418
- (144) Yanan Wan; Qingqing Huang; Qi Wang; Yibing Ma; Dechun Su; Yuhui Qiao; Title: Ecological risk of copper and zinc and their different bioavailability change in soil-rice system as affected by biowaste application, *Ecotoxicology and Environmental Safety* 192 (2020) 110301
- (145) Yajie Huang, Jumei Li, Yibing Ma, Determining optimum sampling numbers for survey of soil heavy metals in decision making units: taking cadmium as an example. *Environmental Science and Pollution Research*, 27(19), 24466-24479.
- (146) Qing-Lin Chen, Jing Ding, Hang-Wei Hu, Manuel Delgado-Baquerizo, Yi-Bing Ma, Ji-Zheng He, Yong-Guan Zhu, 2020, Rare microbial taxa as the major drivers of ecosystem multifunctionality in long-term fertilized soils. *Soil Biology and Biochemistry* 141, 107686
- (147) Xiaoqing Zhang, Haoxuan Wu, Yibing Ma, Yu Meng, Dajun Ren, Shuqin Zhang. 2020. Intrinsic soil property effects on Cd phytotoxicity to *Ligustrum japonicum* 'Howardii' expressed as different fractions of Cd in forest soils. *Ecotoxicology and Environmental Safety* 206, 110949
- (148) Jin Liu, Chaoqun Han, Jianjun Yang, Barbara J. Cade-Menun, Yongfeng Hu, Jumei Li, Hua Liu, Peng Sui, Yuanquan Chen, Yibing Ma, The chemical nature of soil phosphorus in response to long-term fertilization practices: Implications for sustainable phosphorus management, *Journal of Cleaner production, Special Issue. Journal of Cleaner Production* 272 (2020) 123093
- (149) Rui Zhao , Jumei Li , Yibing Ma & Yizhong Lv (2020) A field study of vertical mobility and relative bioavailability of Cu and Ni in calcareous soil, *Environmental Pollutants and Bioavailability*, 32:1, 121-130.
- (150) Cheng, Yuan; Luo, Lei; Lv, Jitao; Li, Gang; Wen, Bei; Ma, Yibing, Copper speciation evolution in swine manure induced by pyrolysis. *Environ. Sci. Technol.* 2020, 54, 14, 9008-9014
- (151) Meilan Xu; Helian Li; Shiwei Li; Cheng Li; Jinyang Li; Yibing Ma , The presence of tetracyclines and sulfonamides in swine feeds and feces: dependence on the antibiotic type and swine growth stages. *Environmental Science and Pollution Research* 2020, 27: 43093-43102.
- (152) Fang, Liping, Liu, Kai, Li, Fangbai, Zeng, Wenbin, Hong, Zebin, Xu, Ling, Shi, Qiantao, Ma, Yibing New insights into stoichiometric efficiency and synergistic mechanism of persulfate activation by zero-valent bimetal (Iron/Copper) for organic pollutant degradation. *Journal of Hazardous Materials*, 2021, 403: 123669.

- (153) Liu, Kai; Li, Fangbai; Tian, Qingwen; Nie, Chengrong; Ma, Yibing; Fang, Liping; Huang, YY; Liu, Siwen. A highly porous animal bone-derived char with a superiority of catalyzing nZVI for Cr(VI) sequestration in agricultural soils. *Journal of Environmental Sciences*, 104 (2021) 27-39.
- (154) Babar Hussain, Jumei Li*, Yibing Ma, Nazia Tahir, Aman Ullah. Effects of Fe and Mn cations on Cd uptake by rice plant in hydroponic culture experiment. *PLoS ONE* 15(12): e0243174.
- (155) Babar Hussain, Muhammad Jawad Umer, Jumei Li, Yibing Ma, Yawar Abbas, Muhammad Nadeem Ashraf, Nirmali Gogoi, Muhammad Farooq. Strategies for reducing cadmium accumulation in rice grains. *Journal of Cleaner Production* 286 (2021) 125557.
- (156) He Pan, Xing Yang, Hanbo Chen, Binoy Sarkar, Nanthi Bolan, Sabry M. Shaheen, Fengchang Wu, Lei Che, Yibing Ma, Jörg Rinklebe, Hailong Wang*. Pristine and iron-engineered animal- and plant-derived biochars enhanced bacterial abundance and immobilized arsenic and lead in a contaminated soil. *Science of the Total Environment* 763 (2021) 144218
- (157) Babar Hussain, Jumei Li, Yibing Ma, Yi Chen, Chunyan Wu, Aman Ullah and Nazia Tahir. A Field Evidence of Cd, Zn and Cu Accumulation in Soil and Rice Grains after Long-Term (27 Years) Application of Swine and Green Manures in a Paddy Soil, *Sustainability* 2021, 13: 2404.
- (158) Xiaoxia Cao; Xin Gao; Xibai Zeng; Yibing Ma; Yue Gao; Yuehui Jia; Jie Liu; Cuixia Wu. Seeking for an optimal strategy to avoid arsenic and cadmium over-accumulation in crops: soil management vs cultivar selection in a case study with maize. *Chemosphere*, 2021, 272: 129891.
- (159) Lijun Li, Bao Jiang, Yanan Wan, Jumei Li, Yibing Ma, Integrating bioavailability and aging in the criteria derivation of cadmium for the safe production of rice in paddy soils, *Ecotoxicology and Environmental Safety* 219 (2021) 112356
- (160) Kai Liu, Mengran Li, Zhenlong Zhu, Baolin Gao, Haicen Zeng, Yibing Ma and Liping Fang, Emerging investigator series: 3D graphene anchored zerovalent Fe/Cu aerogel activating persulfate for efficiently 2,4 dichlorophenol degradation over a broad pH range. *Environ. Sci.: Water Res. Technol.*, 2021,7, 714-725
- (161) Jintao Gao, Xiaoyue Wang, Xinxin Ye, Dechen Li, Yibing Ma, Bo Sun. Derivation and validation of thresholds of cadmium, chromium, lead, mercury and arsenic for safe rice production in paddy soils. *Ecotoxicology and Environmental Safety* 220 (2021) 112404.
- (162) Yajie Huang, Yibing Ma, Shiwen Zhang, Zhen Li, Yuanfang Huang*. 2021 Optimum allocation of salt discharge areas in land consolidation for irrigation districts by SahysMod. *Agricultural Water Management* 256 (2021) 107060.
- (163) Mengjia Li, Fangyu Zhang, Shaojing Li, Xuexia Wang, Jun Liu, Bin Wang, Yibing Ma, Ningning Song, 2021. Biotic ligand modeling to predict the toxicity of HWO_4^- and WO_4^{2-} on wheat root elongation in solution cultures: Effects of pH and accompanying anion. *Ecotoxicology and Environmental Safety* 222 (2021) 112499.

- (164) Tahir N, Li JM, Ma YB, Ullah A, Liu H. A 20-year long term study of yield sustainability and soil fertility affected by fertilization and APSIM climatic change model of Urumqi, Xinjiang, China. *Applied Ecology and Environmental Research*, 2021, 19: 1827-1855.
- (165) Huang GX, Ding CF, Ma YB, Wang YR, Zhou ZG, Zheng SA, Wang XX. Rice (*Oryza sativa* L.) seedlings enriched with zinc or manganese: their impacts on cadmium accumulation and expression of related genes. *Pedosphere*, 2021, 31: 849-858.
- (166) Yajie Huang, Jumei Li, Yibing Ma, Fangbai Li, Deli Chen. A simple method to determine the sampling numbers in decision-making units with unknown variations of soil cadmium. *Environ Monit Assess* (2021) 193:552.
- (167) Nazia Tahir, Jumei Li, Yibing Ma, Aman Ullah, Ping Zhu, Chang Peng, Babar Hussain & Subhan Danish. 2021. 20 Years nitrogen dynamics study by using APSIM nitrogen model simulation for sustainable management in Jilin China. *Scientific Reports* | (2021) 11:17505
- (168) Helian Li, Yuhang Cheng, Yinghao Liu, Shiwei Li, Xuemei Han, Yibing Ma, Trace Element Accumulation from Swine Feeds to Feces in Chinese Swine Farms: Implication for Element Limits. *Integr Environ Assess Manag* 2022;18:978-987
- (169) Ji Li, Chenlu Shi, Wenbin Zeng, Yaru Wang, Zebin Hong, Yibing Ma, Liping Fang, 2022. Distinct roles of pH and organic ligands in the dissolution of goethite by cysteine. *Journal of Environmental Sciences*, 113: 260-268.
- (170) Xuemeng Zhang, Gengxue Fu, Shuping Xing, Wei Fu, Xiaoying Liu, Hui Wu, Xiang Zhou, Yibing Ma, Xin Zhang*, Baodong Chen. 2021. Structure and diversity of fungal communities in long-term copper-contaminated agricultural soil. *Science of the Total Environment* 806 (2022) 151302.
- (171) Sajjad Hussain, Jianjun Yang, Jamshad Hussain, Imran Hussain, Mahendar Kumar, Subhan Ullah, Liandong Zhang, Xing Xia, Yuehui Jia, Yibing Ma, Yuxi Gao. Phytoavailability and transfer of mercury in soil-pepper system: Influencing factors, fate, and predictive approach for effective management of metal-impacted spiked soils. *Environmental Research* 207(2022): 112190
- (172) Xu, Ling; Li, Ji; Liu, Kai; Ma, Yibing; Fang, Liping, Shi, Chenlu, 2022. Surfactant-assisted removal of 2,4-dichlorophenol from soil by zero-valent Fe/Cu activated persulfate. *Chinese Journal of Chemical Engineering* 44: 447-455.
- (173) Xue-Mei Han, Hang-Wei Hu, Jin-Yang Li, He-Lian Li, Fang He, Wen-Cai Sang, Yi-Bing Ma, Long-term Application of Swine Manure and Sewage Sludge Differently Impacts Antibiotic Resistance Genes in Soil and Phyllosphere, *Geoderma* 411 (2022) 115698
- (174) Yang Yang, Yemian Peng, Yibing Ma, Guojun Chen, Fangbai Li, Tongxu Liu*. Effects of aging and reduction processes on Cr toxicity to wheat root elongation in Cr(VI) spiked soils. *Environmental Pollution* 296 (2022) 118784.
- (175) Linheng Chen, Weixi Liu, Yang Wu, Jumei Li, Yibing Ma. Identification and qualification of the combined phytotoxicity of one element with various valences: Cr(III) and Cr(VI) for barley root elongation as an example. *Journal of Hazardous Materials* 430 (2022) 128430.
- (176) Zhang, Xuemeng and Chen, Baodong and Xing, Shuping and Fu, Wei and Wu, Hui and Hao, Zhipeng and Ma, Yibing and Zhang, Xin, Long-term nickel contamination increased soil

- fungal diversity and altered fungal community structure and co-occurrence patterns in agricultural soils. *Journal of Hazardous Materials*. 2022, 436 (15): 129113.
- (177) Tao Lu, Ladi Tikana, Constantin Herrmann, Yibing Ma, Jinping Jia. Environmental hotspot analysis of primary copper production in China and its future improvement potentials. *Journal of Cleaner Production* 370 (2022) 133458.
- (178) Xuan Chen, Jing Wang, Yijie Xie, Yibing Ma, Jiaen Zhang, Hui Wei, Ahmed Ibrahim Elsayed Abdou. Physiological response and oxidative stress of grass carp (*Ctenopharyngodon idellus*) under single and combined toxicity of polystyrene microplastics and cadmium. *Ecotoxicology and Environmental Safety* 245 (2022) 114080.
- (179) Liu, J.; Han, C. Q.; Zhao, Y. H.; Yang, D. L.; Yang, J. J.; Zheng, L.; Hu, Y. F.; Li, J. M.; Sui P.; Chen, Y. Q.; Shi X. J.; Ma, Y. B.* Molecular-level insights into phosphorus transformation mechanisms in Entisol soils under multiple long-term fertilization regimes. *Agronomy* 2022, 12, 2760.
- (180) Chen, Xuan; Xie, Yijie; Wang, Jing; Shi, Zhaoji; Zhang, Jiaen; Wei, Hui; Ma, Yibing. Presence of different microplastics promotes greenhouse gas emissions and alters the microbial community composition of farmland soil. *Science of The Total Environment*. 879, 2023, 162967.
- (181) Xuezhen Yu, Helian Li, Qian Yang, Zongquan Sun, Yibing Ma, Accumulation of Cr in different vegetables and derivation of soil Cr threshold using the species sensitivity distribution method. *Ecotoxicology and Environmental Safety* 258 (2023) 114993
- (182) Lili Tang, Bomin Fu, Yang Wu, Fuchen Cai, Yibing Ma. Linking atmospheric emission and deposition to accumulation of soil cadmium in the Middle-Lower Yangtze Plain, *Journal of Integrative Agriculture* 2023, 22(7): 2-13
- (183) Lijun Li, Kun Li, Bao Jiang, Jumei Li, Yibing Ma, Derivation and validation of soil criteria of total and extractable cadmium for safe vegetables production, *Journal of Integrative Agriculture*, Available online 9 May 2023. <https://doi.org/10.1016/j.jia.2023.05.008>
- (184) Lijun Li, Bao Jiang, Kun Li, Jumei Li, Yibing Ma*, Accurate derivation and modelling of criteria of soil extractable and total cadmium for safe wheat production, *Ecotoxicology and Environmental Safety* 261 (2023) 115092
- (185) Wenting Chi, Guojun Chen#, Shiwen Hu, Xiaomin Li, Kuan Cheng, Qi Wang, Bingqing Xia, Yang Yang*, Yibing Ma, Tongxu Liu. A small extent of seawater intrusion significantly enhanced Cd uptake by rice in coastal paddy fields on June 25, 2023 *Journal of Hazardous Materials*. 458, 2023, 131945
- (186) Dandan Han, Saiqi Zeng, Xi Zhang, Jumei Li and Yibing Ma, Integrating soil pH, clay, and neutralizing value of lime into a new lime requirement model for acidic soils in China, *Agronomy* 2023, 13(7), 1860

主编和参编主要著作（章）

1. 马义兵, 李秀英等主编。国家土壤肥力与肥料效益监测站网（1989-2000）-中国生态系统定位观测与研究数据集。中国农业出版社。2010。

2. McLaughlin MJ, Lofts S, Warne MStJ, Amorim MJB, Fairbrother A, Lanno R, Hendershot W, Schlekert CE, Ma YB, Paton GI 2009. Derivation of ecologically-based soil standards for trace elements. In: Merrington and Schoeters (eds): Deriving, implementing and interpreting soil quality standards for trace elements: current state of understanding and future developments; SETAC workshop book.
3. Ma YB, Hooda P 2010. Chromium, Cobalt and Nickel. In: Peter Hooda (editor), Trace Elements in Soils, page 461-480. Wiley-Blackwell

主要国家发明专利

1. 淀粉基磷肥及其制备方法，专利号：200710175496
2. 一种缓释尿素及其制备方法，专利号：200810103916.4
3. 一种钝化修复土壤镉污染的方法，专利号：200810239918.6
4. 利用淡水发光细菌检测铜污染土壤急性毒性的方法，专利号：200910079402.4
5. 一种利用纳米羟基磷灰石去除污水中重金属离子的方法，专利号：200910088835.6
6. 一种秸秆磷肥及其制备方法，专利号：2009100813152
7. 一种钠型纳米蒙脱土在去除污染物中铜方面的应用，专利号：201010034308.X
8. 一种土壤钝化剂及其制备方法及降低烟草镉的应用，专利号：ZL 2013 1 0265014.1

近期主持的主要项目

1. 国家重点研发计划“农业面源与重金属污染农田综合防治与修复技术研发”重点专项“农田系统重金属迁移转化和安全阈值研究”(国家重点研发计划, 2598万, 2016—2020)
2. 重金属超标农田安全利用技术与示范(支撑计划子课题, 82万, 2015—2019)
3. 主要农产品产地土壤重金属污染阈值研究与防控技术集成示范(公益性农业行业科研专项, 1685万, 2009—2013)