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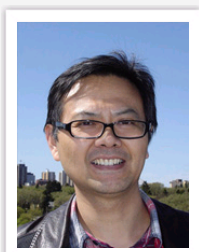
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科研项目

著作论文

获奖情况

课题组成员

个人经历

教育经历:

徐州师范学院(现徐州师范大学)化学系, 获理学学士学位(1984-1988)

中国科学院南京土壤研究所, 获理学硕士学位(1988-1991)

中国科学院南京土壤研究所, 获理学博士学位(1994-1997)

工作经历:

中国科学院南京土壤研究所, 研究实习员、助理研究员(1991-1999)

中国科学院南京土壤研究所, 副研究员(1999-2004)

中国科学院南京土壤研究所, 研究员、博士生导师(2004-)

澳大利亚阿德莱德大学, 访问学者(1999-2000)

加拿大萨省大学土壤系, 访问教授(2007-2008)

科研项目

TOP

课题名称	负责人	课题来源	起止时间
可变电荷土壤带相反电荷的胶体颗粒表面双电层的相互作用	徐仁扣	国家自然科学基金面上项目	2006-2008
热带地区富铁土、铁铝土发育的阶段特征与系统分类	徐仁扣	中国科学院重要方向性项目-课题	2007-2009
酸壤酸化阻控和修复关键技术研究	徐仁扣	国家支撑计划课题	2009-2011
东南湿润区变动的氧化还原条件与氮磷的地球化学循环及输移动	徐仁扣	中国科学院创新重要方向项目群项目	2009-2011
茶树酸化土壤的微观机制	徐仁扣	国家自然科学基金面上项目	2009-2011
热带地区典型土壤中双电层相互作用与根/土界面的电化学特征	徐仁扣	中国科学院重要方向性项目	2010-2012
土壤酸度与土壤表面电化学性质之间的互馈关系研究	徐仁扣	国家自然科学基金面上项目	2010-2012

著作论文

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专著:

1. 丁昌璞, 徐仁扣. 土壤的氧化还原过程及其研究法. 2011. 科学出版社

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1. Wei Qian, An-zhen Zhao, Ren-kou Xu. Sorption of As(V) by Aluminum-Modified Crop Straw-Derived Biochars. *Water, Air, & Soil Pollution*, 2013, 224: 1610
2. Li JY, Liu ZD, Zhao AZ, Xu RK*. Microbial and enzymatic properties in response to amelioration of an acidic Ultisol by industrial and agricultural by-products. *Journal of Soils and Sediments*, 2013, DOI 10.1007/s11368-013-0666-6
3. Xu RK, Zhao AZ. Effect of biochars on adsorption of Cu(II), Pb(II) and Cd(II) by three variable charge soils from southern China. *Environment Science Pollution Research*, 2013, DOI 10.1007/s11356-013-1769-8
4. Liu ZD, Li JY, Jiang J, Hong ZN, Xu RK*. Adhesion of Escherichia coli to nano-Fe/Al oxides and its effect on the surface chemical properties of Fe/Al oxides, *Colloids and Surfaces B: Biointerfaces*, 2013, 110: 289-295
5. Li JY and Xu RK. Inhibition of Acidification of Kaolinite and an Alfisol Subsoil by Iron Oxides Through Electrical Double-Layer Interaction. *Soil Science*, 2013, 178(1): 37-45.
6. Wang YP, Xu RK, Li JY. Effect of Fe/Al Hydroxides on Desorption of K⁺ and NH₄⁺ from Two Soils and Kaolinite. *Pedosphere*, 2013, 23(1): 81-87.
7. Li JY and Xu RK. Inhibition of acidification of kaolinite and an Alfisol by aluminum oxides through electrical double-layer interaction and coating. *European Journal of Soil Science*, 2013, 64: 110-120.
8. Jiang J and Xu RK. Application of crop straw derived biochars to Cu (II) contaminated Ultisol: Evaluating role of alkali and organic functional groups in Cu (II) immobilization. *Bioresource Technology*, 2013, 133: 537-545.
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11. Li JY, Xu RK, Zhang H. Iron oxides serve as natural anti-acidification agents in highly weathered soils. *Journal of Soils and Sediments*, 2012, 12: 876-887
12. Xu RK, Zhao AZ, Yuan JH, Jiang J. pH buffering capacity of acid soils from tropical and subtropical regions of China as influenced by incorporation of crop straw biochars. *Journal of Soils and Sediments*, 2012, 12: 494-502.
13. Yuan JH, Xu RK. Effects of biochars generated from crop residues on chemical properties of acid soils from tropical and subtropical China. *Soil Research*, 2012, 50, 570-578
14. Tong DL, Xu RK. Effects of urea and (NH₄)₂SO₄ on nitrification and acidification of Ultisols from Southern China. *Journal of Environmental Sciences*, 2012, 24(4): 682-689
15. Wang Q, Xu RK, Li XH. Proton release from tea plant (*Camellia sinensis* L.) roots as affected by five cations in solution culture. *Plant, Soil and Environment*, 2012, 58(9): 429-434.
16. Jiang J, Wang Y, Xu RK, Yang C. Adsorption of chromate on variable charge soils as influenced by ionic strength. *Environmental Earth Sciences*, 2012, 66: 1155-1162
17. Wang Q, Xu RK, Li XH. Proton release from tea plant (*Camellia sinensis* L.) roots induced by Al (III) under hydroponic conditions. *Soil Research*, 2012, 50(6):482-488.
18. Yuan J H, Xu R K*, Zhang H. The forms of alkalis in the biochar produced from crop residues at different temperatures. *Bioresource Technology*, 2011, 102(3): 3488-3497
19. Xu R K, Xiao S C, Yuan J H, Zhao A Z. Adsorption of methyl violet from aqueous solutions by the biochars derived from crop residues. *Bioresource Technology*, 2011, 102: 10293-10298
20. Tong X J, Li J Y, Yuan J H, Xu R K*. Adsorption of Cu(II) by biochars generated from crop straws. *Chemical Engineering Journal*, 2011, 172(2-3): 828-834
21. Xu R K, Xiao S C, Jiang J, Wang Y P. Effect of amorphous Al (OH)₃ on desorption of Ca²⁺, Mg²⁺ and Na⁺ from soils and minerals as related to diffuse layer overlapping. *Journal of Chemical and Engineering Data*, 2011, 56(5): 2536- 2542
22. Yuan J H, Xu R K*. The amelioration effects of low temperature biochar generated from nine crop residues on an acidic Ultisol. *Soil Use and Management*, 2011, 27(1): 110-115
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授权专利：

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2. 徐仁扣, 袁金华, 李九玉. 一种高效酸性土壤有机改良剂. 发明专利, ZL 2009 1 0036222.8
3. 徐仁扣, 赵安珍, 姜军. 一种利用建筑渣土和污泥生产的草皮基质. 发明专利, ZL 2009 1 0036221.3
4. 徐仁扣, 袁金华, 王艳平. 一种对农作物秸秆及其他有机物料进行炭化处理的装置. 实用新型专利, ZL 2010 2 0683459.3

获奖项目

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1998年获农业部科技进步三等奖

2007年获得江苏省“333高层次人才培养工程”中青年科学技术带头人荣誉称号

2010年获中国科学院朱李月华优秀教师奖



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