

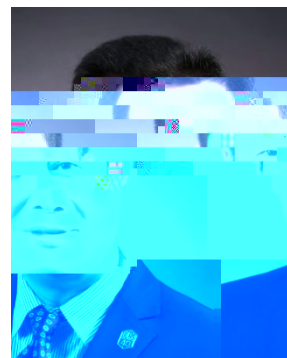
## CURRICULUM VITAE

Professor Renfang Shen

Institute of Soil Science,  
Chinese Academy of Sciences,  
298 Chuangyou Road, Nanjing 211135, China

Phone +86 25 86881563

Email: rfshen@issas.ac.cn



### Education

|                |   |
|----------------|---|
| December, 1993 | Ph.D. (Soil Science)<br>Chinese Academy of Sciences, China                          |
| August, 1989   | M.Sc. (Soil Science)<br>Chinese Academy of Sciences, China                          |
| July, 1986     | B.Sc. (Soil Science and Plant Nutrition)<br>Zhejiang Agricultural University, China |

### Administrative and Faculty Appointments

|              |   |
|--------------|---|
| 2021 to date | Director<br>National Engineering Research Center of Soil Nutrition and Remediation, National Development and Reform Commission, China             |
| 2011 to 2022 | Director<br>The Key Laboratory of Cultivated Land Conservation, Ministry Agriculture and Rural Affairs of the People's Republic of China<br>China |
| 2010 to date | Director General<br>Institute of Soil Science, Chinese Academy of Sciences (ISSC, Nanjing, China  |
| 2007 to 2009 | Executive deputy Director General<br>ISSCAS, Nanjing, China   |

## Professional Appointments

Chair, Division 3, International Union of Soil Science (IUSS) (~~2016~~present)

Vice Chair, Division 3, IUSS (2022~~2023~~)

Honorary President, Soil Science Society of China (~~2020~~present)

Vice President, China Association of Agricultural Science Societies (~~2015~~present)

President, ESAFS (East and Southeast Asian Federation of Soil Science Societies)  
(2013-2015)

President, Soil Science Society of China (2020~~2020~~)

Executive director, the 8th Council of Plant Nutrition and Fertilizer Society of China  
(2012-2016)

Executive Vice President, Soil Science Society of China (~~2012~~)

## Areas of Research interests and Teaching

Aluminum tolerance in plants, Efficient utilization of plant nutrients

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in hilly areas of southeastern China, 2014/01–2018/12 (18 million RMB)  
National Natural Science Foundation of China, General Program, 41271257, The mechanisms for high aluminum tolerance of red yeast isolated from acidic soils, 2013/01–2016/12 (0.75 million RMB)  
National Natural Science Foundation of China, NSFC for Distinguished Young Scholars, 41025005, The interaction of aluminum toxicity and nutrient stress in acidic soils and the coordinated adaptation mechanism of plants, 2011/01–2014/12 (2 million RMB)  
National Natural Science Foundation of China, General Program, 40871144, Effects of different forms of nitrogen (ammonium/nitrate) on aluminum toxicity of plants in acidic soils and its mechanism, 2009/01–2011/12 (0.45 million RMB)  
National Natural Science Foundation of China, NSFC Joint Research Program, 30821140538, Research on soil acidification mechanism and acid soil bioremediation, 2009/01–2011/12 (1 million RMB)  
Chinese Academy of Sciences, Knowledge Innovation Program, KSCX2-N-002, Rhizosphere processes of crops and mechanisms underlying efficient uptake and utilization of nutrient, 2007/01–2009/12 (1.4 million RMB)  
Ministry of Science and Technology, National Key Technology R&D Program, 2006BAD05B08, Research and demonstration on technical model of nutrient balance regulation in southeast intensive farm/TT2 1BAD051 (t)-2m>upt-2 (/5g2e)-64 (,)-1-

- 2018 to date Expert of Decision Making Consulting Expert Database of the Standing Committee of the 13th People's Congress of Jiangsu Province, China
- 2015 to date Member of the 6th and 7th Discipline Evaluation Group of Academic Degrees Committee of the State Council of China
- 2013-2016 Member of Expert Guidance Group on Cultivated Land Quality Construction and Management of the Ministry of Agriculture and Rural Affairs of the People's Republic of China
- 2011-2016 Member of the 4th and 5th Coordination Committee of the International Federation of Science and Technology Associations for Science and Technology
- 2010-2015 Member of Decision Consulting Expert Database of China Association for Science and Technology
- 2010-2013 Member of the Virtual Fertilizer Research Center (VFRC) board of advisors, International Fertilizer Development Center
- 2009-2010 Member of the International Scientific Advisory Council (ISAC) for International Soil Reference and Information Centre (ISRIC) World Soil Information

#### Publications

#### Books

1. Shen RF, Chen RF, Ma JF. Accumulation of aluminum in leaves and seeds of *Fagopyrum esculentum* Moench. grown in a strong acid soil. In: Li CJ et al. (Eds.). Plant nutrition for food security, human health and environmental protection. Tsinghua University press, 2005, P7323, Beijing.
2. Chen RF, Shen RF. Iron plaque on root surface depresses citrate secretion from rice  
F

6. Zhou JM, Shen RF. Dictionary of Soil Science. The Science Press, 2013, Beijing.
7. Shen RF. The Behavior of Aluminum in Soil-Plant System and the Adaptation Mechanism of Plant to Aluminum Toxicity. The Science Press, 2008, Beijing.
8. Shen RF, Teng Y, Zhang GL, Yan XY, Peng XH, Li FB, Shen QR, Shi ZH, Cai ZC, Luo YM, Xu JM, Sun B, Chu HY. Environmental Soil Science, Basic Soil Science,

8. Wang HY, Li S, Yang JB, Huang J, Zhu XF, Shen RF, Zeng DL\*. Putrescine modulates cadmium fixation ~~by~~ of cell wall to decrease cadmium accumulation in rice, a process might depend on nitric oxide ~~fixation~~. *Plant Science*, 31(3)(2024): 237-240.
9. Zhu XF, Zhao L, Huang J, He JT, Song JY, Teng Y, Shen RF\*. Cell wall fixation, translocation, and vacuolar detoxification of cadmium contribute to differential grain cadmium accumulation in two rice cultivars. *Plant Science*, 31(3)(2024): 241-244.
10. Guo R, Zhang Q, Chen CZ, Sun JY, Tu CY, He M, Shen RF, Huang J, Zhu XF\*. A novel aldoketo reductase gene, OsAKR1, from rice confers higher tolerance to cadmium stress in rice by an in vivo reactive aldehyde detoxification. *Journal of Hazardous Materials*, 470(2024):134212.
11. Liu C, Jiang M, Yuan MM, Wang E, Bai Y, Crowther TW, Zhou J, Ma Z, Zhang L, Wang Y, Ding J, Liu W, Sun B, Shen RF, Zhang J, Liang Y\*. Root microbiota confers rice resistance to aluminum toxicity and phosphorus deficiency in acidic soils. *Nature Food*, 4 (2023): 912-924.
12. Wang C, Guo L, Shen RF\*. Rare microbial communities drive ed ( )Tj 0t(if)5 (i53 ( r ( drdoTJ 0.1r)3 (us)-14, (vF)1 (1 Tf [(, 4 () .01 Tw - .01Twl)32.524.al610.32 -1.

- pH levels and nitrogen rates. *Journal of Soil Science and Plant Nutrition*, 23(1)(2023): 1360-1373.
23. Wang JL, Xiao X, Hu AY, Shen RF, Zhao XQ\*. Yield gap of rice genotypes under N and P deficiencies: evidence from differential recruitment of bacterial keystone taxa in the rhizosphere. *Applied Soil Ecology* 184(2023): 104791.
24. Huang J, Jing HK, Zhang Y, Chen SY, Wang HY, Cao Y, Zhang Z, Lu YH, Zheng QS, Shen RF, Zhu XF\*. Melatonin reduces cadmium accumulation via mediating





54. Li JJ, Zhao XQ\*, Wang JL, Shen R Strategies of cadmium and copper uptake and translocation in different plant species growing near-waste dismantling



84. Karim MR, Dong XY, Zheng L, Shen RF, Lan P\*. Can aluminum tolerant wheat cultivar perform better under phosphate deficient conditions? *International Journal of Molecular Sciences*, 19(10)(2018): 2964.
85. Li XW, Li YL, Mai JW, Tao L, Qu M, Liu JY, Shen RF, Xu GL, Feng YM, Xiao HD, Wu LS, Shi L, Guo SX, Liang J, Zhu YY, He YM, Baluška F, Shabala S\*, Yu M\*. Boron alleviates aluminum toxicity by promoting root alkalization in transition zone via polar auxin transport. *Plant Physiology* 177(3)(2018): 1254-1266.
86. Zhu CQ, Zhu XF, Wang C, Dong XY, Shen RF\*. Nitrate inhibits the remobilization of cell wall phosphorus under phosphorus starvation conditions in rice. *Planta*, 248(1)(2018): 185-196.
87. Zhao XQ, Shen RF\*. Aluminum-nitrogen interactions in the soil-plant system. *Frontiers in Plant Science*, 9(2018): 807.
88. Zhu XF, Zhao XS, Wu Q, Shen RF\*. Abscisic acid is involved in root cell wall phosphorus remobilization independent of nitric oxide and ethylene in *Oryza sativa*. *Annals of Botany*, 121(7)(2018): 1361-1368.
89. Shao JF, Xia JX, Yamaji N, Shen RF, Ma JF\*. Effective reduction of cadmium accumulation in rice grain by expressing OsHMA3 under the control of the OsHMA2 promoter. *Journal of Experimental Botany* 69(10)(2018): 2742-2752.
90. Wang C, Zheng MM, Hu AY, Zhu CQ, Shen RF\*. Diazotroph abundance and community composition in an acidic soil in response to aluminum-tolerant and aluminum-sensitive maize (*Zea mays L.*) cultivars under two nitrogen fertilizer forms. *Plant and Soil*, 424(12)(2018): 463-478.
91. Hu AY, Che J, Shao JF, Yokosho K, Zhao XQ, Shen RF, Ma JF\*. Silicon accumulated in the shoots results in down-regulation of phosphorus transporter gene expression and decrease of phosphorus uptake in rice. *Plant and Soil* 423(1-2)(2018): 317-325.
92. Shao JF, Yamaji N, Liu XW, Yokosho K, Shen RF, Ma JF\*. Preferential distribution of boron to developing tissues is mediated by the intrinsic protein OsNIP3. *Plant Physiology* 176(2)(2018): 1739-1750.
93. Shao JF, Che J, Yamaji N, Shen RF, Ma JF\*. Silicon reduces cadmium accumulation by suppressing expression of transporter genes involved in cadmium uptake and translocation in rice. -

98. Zhu XF, Wan JX, Wu Q, Zhao XS, Zheng SJ, Shen RF\*. PARVUS affects aluminum sensitivity by modulating the structure of glucuronoxylan in *Arabidopsis thaliana*. *Plant Cell and Environment* 40(9)(2017): 1916-1925.
99. Zhu XF, Zhao XS, Wang B, Wu Q, Shen RF\*. Elevated carbon dioxide alleviates aluminum toxicity by decreasing cell wall hemicellulose in rice (*Oryza sativa*). *Frontiers in Physiology*, 8(2017): 512.
100. Huang JX, Xue CW, Wang H, Wang LS, Schmidt W, Shen RF, Lan P\*. Gene ACYL carrier protein family show different expression in rice (*Oryza sativa*). *Gene* 618(2017): 1-10.

113. Wang H, Lan P\*, Shen RF. Integration of transcriptomic and proteomic analysis towards understanding the systems biology of root hairs. *Proteomics*, 16(5)(2016): 877-893.
114. Khan A, Sirajuddin, Zhao XQ, Javed MT, Khan KS, Bano A, Shen RF, Masood S\*. *Bacillus pumilus* enhances tolerance in (*Oryza sativa* L.) to combined stresses of NaCl and high boron due to limited uptake of <sup>+</sup>N. *Environmental and Experimental Botany*, 124(2016): 120-129.
115. Zhu XF, Wang B, Song WF, Zheng SJ, Shen RF\*. Putrescine alleviates iron deficiency via NO dependent reutilization of root cell wall Fe in Arabidopsis. *Plant Physiology*, 170(1)(2016): 555-567.
116. Yang J, Qu M\*, Fang J, Shen RF, Feng YM, Liu JY, Bian JF, Wu HS, Yu M\*. Alkali-soluble pectin is the primary target of aluminum immobilization in root border cells of pea (*Pisum sativum*). *Frontiers in Plant Science*, 7(2016): 1297.
117. Shao JF, Che J, Chen RF, Ma JF, Shen RF\*. Effect of in planta phosphorus on aluminum-induced inhibition of root elongation in wheat. *Plant and Soil*, 395(1-2)(2015): 307-315.
118. Wang W, Zhao XQ, Hu ZM, Shao JF, Che J, Chen RF, Dong XY, Shen RF\*. Aluminum alleviates manganese toxicity to rice by decreasing root symplastic Mn uptake and reducing availability to shoots of Mn stored in roots. *Annals of Botany*, 116(2)(2015): 237-246.
119. Liang LZ, Qi HJ, Xu P, Zhao XQ, Dong XY, Shen RF\*. High phosphorus at seedling stage decreases the post-planting fertilizer requirement of cucumber (*Cucumis sativus* L.). *Scientia Horticulture*, 190(2015): 98-103.
120. Xu QF\*, Jiang PK, Wu JS, Zhou GM, Shen RF, Fuhrmann JJ. Bamboo invasion of native broadleaf forest modified soil microbial communities and diversity. *Biological Invasions*, 17(1)(2015): 433-444.
121. Wang W, Zhao XQ, Chen RF, Dong XY, Lan P, Ma JF, Shen RF\*. Altered cell wall properties are responsible for ammonium-induced aluminum accumulation in rice roots. *Plant Cell and Environment*, 38(7)(2015): 1382-1390.
122. Xu P, Liang LZ, Dong XY, Shen RF\*. Effect of arbuscular mycorrhizal fungi on aggregate stability of a clay soil inoculating with two different host plants. *Acta Agriculturae Scandinavica, Section B Soil and Plant Science*, 65(1)(2015): 232-239.
123. Che J, Zhao XQ\*, Zhou X, Jia ZJ, Shen RF\*. High pH enhanced nitrification was associated with ammonium oxidizing bacteria rather than archaea in acidic soils. *Applied Soil Ecology*, 85(2015): 212-219.
124. Wang H, Chen RF, Iwashita T, Shen RF, Ma JF\*. Physiological characterization of aluminum tolerance and accumulation in tartary and wild buckwheat. *New Phytologist*, 205(1)(2015): 273-279.
125. Ma F\*, Ma Y, Du CW, Yang XD\*, Shen RF\*. Comparison on the interaction of Al<sup>3+</sup>/nanoAl<sup>3+</sup> with calf thymus DNA/salmon sperm DNA. *Journal of Molecular Structure*, 1100(2015): 154-161.
126. Zhu XF, Wang ZW, Wan JX, Sun Y, Wu YR, Li GX, Shen RF, Zheng SJ\*. Pectin enhances rice (*Oryza sativa*) root phosphorus remobilization. *Journal of Experimental Botany*, 66(3)(2015): 1017-1024.
127. Xu P, Liang LZ, Dong XY, Xu J, Jiang PK, Shen RF\*. Response of soil phosphorus required for maximum growth of *Asparagus officinalis* L. to inoculation of Arbuscular mycorrhizal fungi. *Pedosphere*, 24(6)(2014): 776-782.
128. Xia JX, Yamaji N, Che J, Shen RF, Ma JF\*. Differential expression of *Nrat1* is responsible for Al tolerance QTL on chromosome 2 in rice. *Journal of Experimental Botany*, 65(15)(2014): 4297-4304.

129. Ma JF\*, Chen ZC, Shen RF. Molecular mechanisms of Al tolerance in gramineous plants. *Plant and Soil*, 381(12)(2014): 112.
130. Xia JX, Yamaji N, Che J, Shen RF, Ma JF\*. Normal root elongation requires arginine produced by argininosuccinate lyase in rice. *The Plant Journal* 78(2)(2014): 215-226.
131. Zheng L, Lan P\*, Shen RF\*, Li WF\*. Proteomics of aluminum tolerance in plants. *Proteomics*, 14(45)(2014): 5665-5678.
132. Zhao XQ, Chen RF, Shen RF\*. Coadaptation of plants to multiple stresses in acidic soils. *Soil Science*, 179(1041)(2014): 503-513.
133. Zhao XQ, Shen RF\*. Interactive regulation of nitrogen and aluminum in rice. *Plant Signaling and Behavior*, 8(6)(2013): 243-255.
134. Liang LZ, Zhao XQ, Yi XY, Chen ZC, Dong XY, Chen RF, Shen RF\*. Excessive application of nitrogen and phosphorus fertilizers induces soil acidification and

- alleviate aluminium toxicity? *Journal of the Science of Food and Agriculture* 92(5)(2012): 995-1000.
- 146.Zeng QL, Chen RF, Zhao XQ, Wang HY, Shen RF\*. Aluminium uptake and accumulation in the hyperaccumulator *Camellia Oleifera* Abel. *Pedosphere* 21(3)(2011): 353-364.
- 147.Yang XD, Cai L, Peng Y, Li HH, Chen RF, Shen RF\*. Effects of Al(III) and nano-Al<sub>13</sub> species on malate dehydrogenase activity. *Sensors* 11(6)(2011): 5740-5753.
- 148.Zhao XQ, Mitani N, Yamaji N, Shen RF\*, Ma JF. Involvement of silicon influx transporter OsNIP2;1 in selenite uptake in rice. *Plant Physiology* 153(4)(2010): 1871-1877.
- 149.Chen RF, Shen RF\*, Yang XD, Wang XL. Effects of buckwheat growth on variation of aluminum and major metals in rhizosphere soil solutions *Journal of Plant Nutrition and Soil Science*, 173(5)(2010): 788-794.
- 150.Chen ZC, Zhao XQ, Shen RF\*. The alleviating effect of ammonium on aluminum toxicity in *Lespedeza bicolor* results in decreased aluminum-induced malate secretion from roots compared with nitrate. *Plant and Soil* 337(12)(2010): 389-398.
- 151.Yu M\*, Shen RF, Liu JY, Chen RF, Xu MM, Yang Y, Xiao HD, Wang HZ, Wang HY, Wang CQ. The role of root border cells in aluminum resistance of pea (*Pisum sativum*) grown in mist culture. *Journal of Plant Nutrition and Soil Science* 172(4)(2009): 525-534.
- 152.Liang LZ, Shen RF\*, Yi XY, Zhao XQ, Chen ZC, Chen RF, Dong XY. The phosphorus requirement of *Amaranthus mangostanus* L. exceeds the change point of P loss. *Soil Use and Management* 25(2)(2009): 152-158.
- 153.Wang XL, Li K, Yang XD\*, Wang LL, Shen RF\*. Complexation of Al(III) with reduced glutathione in acidic aqueous solutions. *Journal of Inorganic Biochemistry* 103(5)(2009): 657-665.
- 154.Zhao XQ, Shen RF\*, Sun QB. Ammonium under solution culture alleviates aluminum toxicity in rice and reduces aluminum accumulation in roots compared with nitrate. *Plant and Soil* 315(12)(2009): 1071-121.
- 155.Yu M\*, Shen RF, Xiao HD, Xu MM, Wang HZ, Wang HY, Zeng QL, Bian JF. Boron alleviates aluminum toxicity in pea (*Pisum sativum*). *Plant and Soil* 314(1-2)(2009): 879-88.
- 156.Chen RF, Shen RF\*. Root phosphate exudation and pH shift in the rhizosphere are not responsible for aluminum resistance in rice. *Acta Physiologiae Plantarum*, 30(6)(2008): 817-824.
- 157.Sun QB, Shen RF\*, Zhao XQ, Chen RF, Dong XY. Phosphorus enhances Al resistance in Al-resistant *Lespedeza bicolor* but not in sensitive *L. cuneata* under relatively high Al stress. *Annals of Botany*, 102(5)(2008): 795-804.
- 158.Dong XY, Shen RF\*, Chen RF, Zhu ZL, Ma JF. Secretion of malate and citrate from roots is related to high Al resistance in *Lespedeza bicolor*. *Plant and Soil* 306(12)(2008): 1391-147.
- 159.Yang XD, Zhang QQ, Chen RF, Shen RF\*. Speciation of Aluminum (III) complexes with oxidized glutathione in acidic aqueous solutions. *Analytical Sciences*, 24(8)(2008): 1005-1012.
- 160.Chen RF, Shen RF\*, Gu P, Wang HY, Xu XH. Investigation of aluminum-tolerant species in acid soils of South China. *Communications in Soil Science and Plant Analysis*, 39(9-10)(2008): 1493-1506.





180. Shen RF, Zhao QG. Distribution of exchangeable calcium, magnesium, and potassium as affected by fertilizer application to red soil. *Pedosphere* (1995): 343-348.

#### Publications in Refereed Chinese Journals

1. Li XL, Zhao XQ\*, Dong XY, Shen RF. Isolation of phosphate-solubilizing bacteria from acidic soil and its growth promoting effect. *Soil and Fertilizer Sciences in China*, (2023), doi: 10.11838/sfsc.167257.2166.
2. Zhang X, Wang RN, Shen RF, Lan P. Proteomic dissection of the rice shoots in response to iron deficiency and excess. *Plant Physiology*, (2023).



32. Shen RF, Zhao XQ. The sustainable use of acid soils. *Journal of Agriculture* 9(3)(2019): 1620.
33. Zhang LY, Zhao XQ\*, Shen RF. Soil acidification and its ecological effects. *Chinese Journal of Ecology*, 38(6) (2019): 1900-908
- 34.

50. Li GD, Tian MQ, Shen RF\*. Analysis of chlorophyll fluorescence parameters in leaves of strigolactone mutants of *Arabidopsis thaliana*. *Journal of Zhejiang A & F University*, 34(1)(2017): 364-371.
51. Song WF, Wang C, Chen RF, Wen SL, Wang BR, Shen RF\*. Comparison of contribution of wheat ionic uptake to soil acidification under long-term different fertilization. *Soils*, 49(1)(2017): 7-12.
52. Zhao QG, Shen RF, Ting Y. Pilot progress, problems and countermeasures on farmland rotation and fallow system in the heavy metal polluted region of China. *Ecology and Environmental Sciences*, 25(3)(2016): 365-371.
53. Shao JF, Chen RF, Dong XY, Shen RF\*. Aluminum-phosphorus interaction in wheat grown in a split-root device. *Jiangsu Journal of Agricultural Sciences*, 32(1)(2016): 788-793.
54. Shao JF, Chen RF, Dong XY, Shen RF\*. Effects of different phosphorus rates on variations of Mn, Al, Mg and Ca concentrations in soil solution and wheat growth in acid red soil. *Soils*, 48(1)(2016): 364-371.
55. Liang G, Liang LZ, Dong XY, Shen RF. Effects of controlled-release fertilizer on wheat-maize rotation system in fluvo-aquic soil in north China. *Soils*, 48(1)(2016): 53-58.
56. Sun QB, Shen RF\*, Yin CQ, Zhao XQ. Analysis of variations in and factors affecting callose formation in response to Al stress in lespedeza root tips. *Acta Ecologica Sinica*, 36(4)(2016): 1073-1082.
57. Shen RF, Liu WX. Attention should be paid to the prevention and control of persistent organic pollutants in soil. *China Development*, 16(3)(2016): 853-856.
58. Bao XM, Zhao XQ\*, Xiao ZY, Zheng CL, Shen RF. Effects of aluminum on the root growth and nutrient uptake of two rice varieties with different aluminum tolerances. *Plant Physiology Journal*, 51(12)(2015): 2152-2162.
59. Wang W, Song WF, Zhao XQ, Shen RF\*. Responses of zeta potential of protoplast membrane isolated from rice root tips to ammonium, nitrate, aluminum ash

67. Shen RF, Wu YH, Han QZ, Xia LZ, Ma L. Problems of agricultural land resource in the area of the three gorges reservoir and its countermeasures of sustainable utilization. *China Development*, 14(6)(2014): 5055.
68. Xu P, Liang LZ, Dong XY, Shen RF Effects of crop straw extracts on arbuscular

85. Zhang FL, Zhang QM, Zhao XQ, Shen RF\*. Comparison between two P treatment methods in studying effect of phosphorus on aluminium toxicity to plants. *Acta Pedologica Sinica*, 47(2)(2010): 31-318.
86. Liang LZ, Shen RF\*, Yi XY, Chen ZC, Zhao XQ. Effects of phosphate fertilizer application in high phosphorus soil on yield and phosphorus fertilizer uptake efficiency of pakchoi and amaranth. *Jiangsu Agricultural Sciences*, 26(1)(2010): 70-74.
87. Zhang QM, Zhao XQ, Chen RF, Dong XY, Shen RF\*. Effect of ammonium nitrogen/nitrogen on Al toxicity in rice. *Jiangsu Journal of Agricultural Sciences* 26(5)(2010): 979-981.
88. Mao J, Xu RK\*, Wan Q, Chen RF, Li XH, Shen RF. Effect of nitrate concentration on proton release by faba bean roots. *Chinese Journal of Ecology*, 18(5)(2010): 950-953.
89. Sun QB, Dong XY, Shen RF\*. Effects of phosphorus or lime applications on growth and mineral compositions of two lespedeza species, *Acta Pedologica Sinica*, 41(2)(2009): 206-211.
90. Sun QB, Zhao XQ, Shen RF\*. Application of three microscopic techniques to research on Al toxicity in plants. *Acta Pedologica Sinica*, 46(6)(2009): 1020-1032.
91. Yi XY, Chen ZC, Liang LZ, Zhao XQ, Shen RF\*. On utilization of different forms of inorganic phosphate by lettuce, spinach and tomato seedlings. *Acta Pedologica Sinica*, 41(2)(2009): 218-223.
92. Zhang FL, Dong XY, Zeng QL, Shen RF\*. Response of wheat to phosphate fertilizer on red soil and its mechanism. *Jiangsu Agricultural Sciences*, 25(1)(2009): 112-116.
93. Zhang FL, Dong XY, Shen RF\*. Screening of stylosanthes guianensis genotypes tolerant to low phosphorus stress on acid soil of South China. *Jiangsu Agricultural Sciences*, 25(3)(2009): 556-559.
94. Dong XY, Shen RF\*. Mineral nutrition and growth of lespedeza bicolor under high Al and low phosphorus stress. *Soils*, 41(4)(2009): 562-565.
95. Sun QB, Yin CQ, Shen RF, Yang JT, Wang WL\*. Effects of addition of manganese in fertilization and its interactions with nitrogen and potassium on N and K absorption by winter wheat. *Soils*, 40(1)(2008): 83-87.
96. Liu ZH, Yi XY, Zeng QL, Wang HY, Shen RF\*. Study on growth and accumulation of nutrient elements in chinese cabbage at seedling stage under low Cd stress. *Soils* 40(4)(2008): 630-634.
97. Liu ZH, Yi XY, Wang HY, Shen RF\*. Cd accumulation in different Chinese cabbage seedlings under Cd stress. *Soils*, 41(5)(2008): 987-993.
98. Sun QB, Shen RF\*, Zhao XQ. Study of different parameters for evaluating Al tolerance in plants. *Plant Nutrition and Fertilizer Science*, 14(5)(2008): 1017-1022.
99. Sun QB, Shen RF\*, Yin CQ, Zhao XQ. Response mechanisms of plants against Al stresses. *Soils*, 40(5)(2008): 691-697.
100. Gong WH, Gu P, Shen RF\*. Estimation of nitrogen and phosphorus losses from bamboo forest in Yangtze River delta. *Soils*, 39(6)(2007): 874-878.
101. Liu ZH, Yi XY, Wang HY, Gao YR, Shen RF\*. Relative root elongation cannot represent the Cd tolerance of Chinese cabbage, *Soils*, 39(6)(2007): 924-927.
102. Chen YD, Shan YJ, Gu P, Shen RF\*. Productivity of high quality prime farmland and its evaluation in Zhejiang province. *Soils*, 39(6)(2007): 987-991.
103. Qiao J, Bi LD, Zhang WJ, Shen RF, Zhang B\*, Hu F, Liu YL. Effects of long term chemical fertilization on soil microbial biomass, activity and community in paddy soil in red Soil region of China. *Soils*, 39(5)(2007): 772-776.

104. Chen RF, Yang XD, Shen RF\*. Methods for determining inorganic monomeric aluminum in acid soil solution by morin. *Acta Pedologica Sinica*, 44(4)(2007): 663-668.
105. Gu P, Gong WH, Chen RF, Wang HY, Shen RF, Fu XH. Comparison of wet and microwave digestion in analyzing the concentrations of 6 elements in plants. *Chinese Journal of Soil Science*, 38(3)(2007): 616-618.
106. Gu P, Shen RF\*. Status quo, cause and countermeasures of nitrogen pollution in Yangtze delta. *Journal of Agricultural Environment Science*, 24(5)(2005): 1032-1036.
107. Cai H, Shen RF\*. Determination of soil protease activity with modified ninhydrin colorimetry. *Acta Pedologica Sinica*, 42(2)(2005): 308-313.
108. Cai H, Shen RF\*. Effects of transgenic cottons on soil ecosystem. *Soils*, 37(5)(2005): 487-491.
109. Chen RF, Shen RF\*. Mechanisms of aluminum toxicity to and tolerance of rice (*Oryza Sativa* L.) and catabolism of Al stress in acid soils. *Soils*, 36(5)(2004): 481-491.
110. Dong [REDACTED] and accumulation of [REDACTED]. *Acta Horticulturae Sinica*, 30(4)(2003): 470-472.

[REDACTED] on the feasibility of direct measurement of N losses as and NO produced by [(O)2 (pr) b a.o Tf 0 Tw65(d s)-1 (f 0 Twff)3 (

[REDACTED]



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|---------|------|--|
|         |      | Symposium Award (2023)                                       |
| Liu ZT  | 2021 | -  |
|         |      | Outstanding graduate of Shanghai Jiao Tong Univer            |
|         |      | (2024); 20232024 Outstanding Graduate Student                |
| Li WX   | 2020 | Pollution Ecology of Ecological Society of China; 23rd Cross |
|         |      | Straits Symposium on Energy and Environmental Scie           |
|         |      | and Technology "The Best Paper Presentation Award"           |
|         |      | (2021); 4. 20212022 Zhao Zhuman Doctoral Scholarship of      |
|         |      | Shanghai Jiao Tong University                                |
| Cheng S | 2019 | -  |
| Zhao XS | 2018 | -  |
|         |      | Chinese Scholarship Council (CSC) Scholarship (2018); The    |
| Wu Q    | 2018 | Kishimoto Memorial Scholarship of Public Intere              |
|         |      | Incorporated Foundation (2018)                               |
| Wang B  | 2017 | -  |
| Song WF | 2016 | -  |
| Liang G | 2015 | -  |
| Xu J    | 2013 | -  |
| Qi HJ   | 2011 | -  |
|         |      | JSPS Special Postdoctoral Researchers (2013); F              |
| Chen ZC | 2010 | Minjiang Scholar (2016); Fujian Youth May Fourth Mec         |



Societies (13 ESAFS), SSSC leader and reporter, Thailand, 2017

12<sup>th</sup> International Conference of East and Southeast Asia Federation of Soil Science Societies (12 ESAFS), President, Nanjing, China, 2015

9<sup>th</sup> International Symposium on Plant-Soil Interactions at Low pH. Keynote presentation. Dubrovnik, Croatia, October, 2015

11<sup>th</sup> International Conference of East and Southeast Asia Federation of Soil Science Societies (11 ESAFS), SSSC leader and reporter, Indonesia, 2013

20<sup>th</sup> World Congress of Soil Science (20 WCSS), SSSC leader, Jeju, Korea, 2014

8<sup>th</sup> International Symposium on Plant-Soil Interactions at Low pH. Keynote presentation. Bangalore, India, October, 2012

10<sup>th</sup> International Conference of East and Southeast Asia Federation of Soil Science Societies (10 ESAFS), SSSC leader and reporter, Laos, 2011

19<sup>th</sup> World Congress of Soil Science (19 WCSS), SSSC leader, Australia, 2010

The high level International Workshop on Science and Capacity Building for a New and Expanded UNCCD Mandate. Wageningen, the Netherland, April, 2009

7<sup>th</sup> International Symposium on Plant-Soil Interactions at Low pH. Keynote presentation. Guangzhou, China, September, 2008

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Al tolerance mechanisms in buckwheat. Rothamsted Research, UK, July, 2005

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