



当前位置：首页 (<http://www.nanoctr.cas.cn/sy2017/>) > / 人才队伍 (<http://www.nanoctr.cas.cn/rcdw2017/>)

人才队伍

- > 院士 (<http://www.nanoctr.cas.cn/rcdw2017/ys/>)
- > 研究员 (<http://www.nanoctr.cas.cn/rcdw2017/yjy/>)
- > 副研究员 (<http://www.nanoctr.cas.cn/rcdw2017/fyjy/>)
- > 青年创新促进会 (<http://www.nanoctr.cas.cn/rcdw2017/qch2017/>)

人才队伍

姓名:	孙连峰	性别:	男
职务:	无	职称:	研究员
通讯地址:	北京市海淀区中关村北一条11号		
邮政编码:	100190	电子邮件:	slf@nanoctr.cn



简历 :

孙连峰，男，1964年出生于山东淄博。国家纳米科学中心博士生导师。

1986年毕业于山东曲阜师范大学物理系，1989年在中科院物理所获硕士学位。1990年至1997年在胜利油田工作，2000年在中科院物理所获博士学位，2000年到2003年间分在新加坡国立大学物理系（博士后）及英国剑桥大学Cavendish做研究工作。2004年进入国家纳米科学中心工作，任研究员。

研究方向：一维纳米材料（碳纳米管、硅线等）以及异质结的制备、结构以及由其构建的电输运器件研究；纳米金属电极对的制备，量子点、单分子器件的研究；纳米器件中的尺寸效应、量子效应研究；石墨烯的可控制备以及性能研究。

现已发表包括Nature (1), Nano Lett. (4), Adv. Mater. (5), App. Phys. Lett. (8)等SCI论文近50篇，文章他人引用率超过600次。研究工作曾被评为国内基础研究十大进展，被科学时报，科学通报，中国科技通讯，英国BBC(News Online)，Nature China, Asia Materials (Nature Group) 等多次报道。

研究领域 :

纳米材料、纳米器件

获奖及荣誉 :

获得过中国科学院院长特别奖，中国科学院自然科学一等奖各一次。

代表论著 :

1. Z. Liu, K.H. Zheng, L.J. Hu, J. Liu, C. Qiu, H. Zhou, H. Huang, H. Yang, M. Li, C.Z. Gu, S. Xie, L. Qiao, L.F. Sun, Surface Energy Generator of Single-walled Carbon Nanotubes and Its Usage in Self-power System, accepted by Advanced Materials.
2. K.H. Zheng, Z. Liu, J. Liu, L.J. Hu, D.W. Wang , C.Y. Chen, L.F. Sun, Synthesis of High-TC ferromagnetic Mn-doped ZnO nanorods by thermal evaporation, accepted by Chinese Physics B
3. Y. Ren, L. Song , W.J. Ma , Y.C. Zhao , L.F. Sun , C.Z. Gu , W.Y. Zhou , S.S. Xie, Additional curvature-induced Raman splitting in carbon nanotube ring structures, PHYSICAL REVIEW B 80, 113412 (2009).
4. Y.W. Huang, B.G. Quan, Z.X. Wei, G.T. Liu , L.F. Sun, Self-Assembled Organic Functional Nanotubes and Nanorods and Their Sensory Properties, JOURNAL OF PHYSICAL CHEMISTRY C 113, 3929(2009).
5. Coulomb Explosion: A Novel Approach to Separate Single-Walled Carbon Nanotubes from Their Bundle, Liu GT, Zhao YC, Zheng KH, Liu Z, Ma WJ, Ren Y, Xie SS, Sun LF. NANO LETTERS 9, 239(2009).
6. Effectively enhanced oxygen sensitivity of individual ZnO tetrapod sensor by water preadsorption, Zheng KH, Zhao YC, Deng K, Liu Z, Sun LF, Zhang Z X, Song L, Yang H F, Gu CZ, Xie SS, APPLIED PHYSICS LETTERS 92, 213116(2008).

7. ZnO Tetrapods: Designed as Multi-Terminal Sensors to Distinguish False Responses and Increase Sensitivity, Zhang ZX, Sun LF, Zhao YC, Liu Z, Liu DF, Cao L, Zou BS, Zhou WY, Gu CZ and Xie SS, NANO LETTERS 8, 652(2008).
8. Individual water-filled single-walled carbon nanotube as a hydro-electric power convertor, Zhao YC, Song L, Deng K, Liu Z, Zhang ZX, Yang YL, Wang C, Yang HF, Jin AZ, Luo Q, Gu CZ, Xie SS and Sun LF, Advanced Materials 20, 1772(2008).
9. Highly dense and perfectly aligned single-walled carbon nanotubes fabricated by diamond wire drawing dies, Liu GT, Zhao YC, Deng K, Liu Z, Chu WG, Chen JR, Yang YL, Zheng KH, Huang HB, Ma WJ, Song L, Yang HF, Gu CZ, Rao GH, Wang C, Xie SS and Sun LF, NANO LETTERS 8, 1071(2008).
10. Large-scale synthesis of nitrogen-rich carbon nitride microfibers by using graphitic carbon nitride as precursor, Zhao YC, Liu Z, Chu WG, Song L, Zhang ZX, Yu DL, Tian YJ, Xie SS and Sun LF, Advanced Materials 20, 1777(2008).
11. Surface-Enhanced/Normal Raman Scattering Studies on an Isolated and Individual Single-Walled Carbon Nanotube, Zhao YC, Ma WJ, Song L, Liu Z, Liu GT, Zhang ZX, Yang YL, Guo YJ, Ma DL, Xie SS, Sun LF, Journal of Nanoscience and Nanotechnology 9, 1308(2009).
12. Well-aligned multi-walled carbon nanotubes and their photoresponse, Huang HB, Liu Z, Zhao YC, Zheng KH, Xie SS and Sun LF, Journal of Nanoscience and Nanotechnology 9, 1326(2009).
13. Oxygen Desorption from Single-walled Carbon Nanotubes by Camera Flash, Liu Z, Liu GT, Zhao YC, Zheng KH, Huang HB, Yang YL, Wang C, Ma WJ, Gu CZ, Xie SS, Sun LF, Journal of Nanoscience and Nanotechnology 9, 1354(2009).
14. Novel Resistance Behavior of Single-walled Carbon Nanotubes under Large Currents, Liu GT, Liu Z, Zhao YC, Ma WJ, Zheng KH, Huang HB, Sun LF, Xie SS, Journal of Nanoscience and Nanotechnology 9, 1357(2009).
15. Large photocurrent generated by a camera flash in single-walled carbon nanotubes, Liu GT, Liu Z, Zhao YC, Zheng KH, Huang HB, Ma WJ, Gu CZ, Sun LF, Xie SS, JOURNAL OF PHYSICS D-APPLIED PHYSICS 40, 6898(2007).
16. Secondary growth of small ZnO tripodlike arms on the end of nanowires, Zhang ZX, Liu YZ, Liu DF, Luo SD, Shen J, Liu LF, Ma WJ, Ren Y, Xiang YJ, Zhou WY, Xie SS, Zheng KH, Zhao YC, Sun LF, Zou CX, Yu DP, APPLIED PHYSICS LETTERS 91, 013106(2007).
17. Directly synthesized strong, highly conducting, transparent single-walled carbon nanotube films, Ma WJ, Song L, Yang R, Zhang TH, Zhao YC, Sun LF, et al., NANO LETTERS 7, 2307(2007).
18. Large-scale synthesis and optical behaviors of ZnO tetrapods, Zhang ZX, Yuan HJ, Gao Y, Wang JX, Liu DF, Shen J, Liu LF, Zhou WY, Xie SS, Wang X, Zhu X, Zhao YC, Sun LF, APPLIED PHYSICS LETTERS 90, 153116(2007).
19. Large-scale synthesis of rings of bundled single-walled carbon nanotubes by floating chemical vapor deposition, Song L, Ci LJ, Sun LF, et al., ADVANCED MATERIALS 18, 1817(2006).
20. Efficiently producing single-walled carbon nanotube rings and investigation of their field emission properties, Song L, Ci LJ, Jin CH, Tan PH, Sun LF, et al., NANOTECHNOLOGY 17, 2355(2006).
21. Controllable preparation and properties of single-/double-walled carbon nanotubes, Xie SS, Song L, Ci LJ, Zhou ZP, Dou XY, Zhou WY, Wang G, Sun LF, SCIENCE AND TECHNOLOGY OF ADVANCED MATERIALS 6, 725(2005).
22. Growth of aligned single-walled carbon nanotubes under ac electric fields through floating catalyst chemical vapour deposition, Dou XY, Zhou ZP, Tan PH, Zhou JJ, Song L, Sun LF, et al., CHINESE PHYSICS 14, 2068(2005).
23. Two possible emission mechanisms involved in the arc discharge method of carbon nanotube preparation, Tang DS, Sun LF, et al., CARBON 43, 2812 (2005).
24. Shadow-evaporated nanometre-sized gaps and their use in electrical studies of nanocrystals, Sun LF, Chin S N, et al., Nanotechnology 16, 631(2005).
25. Growth of carbon nanotube arrays using the existing array as a substrate and their Raman characterization, Sun LF, Liu ZQ, Ma XC, et al., CHEMICAL PHYSICS LETTERS 340, 222(2001).
26. Growth of carbon nanofibers array under magnetic force by chemical vapor deposition, Sun LF, Liu ZQ, Ma XC, et al., CHEMICAL PHYSICS LETTERS 336, 392(2001).
27. Effects of temperature oscillations on the growth of carbon nanotubes by chemical vapor deposition, Sun LF, Xie SS, Mao JM, et al., APPLIED PHYSICS LETTERS 76, 828(2000).
28. Materials - Creating the narrowest carbon nanotubes, Sun LF, Xie SS, et al., NATURE 403, 384(2000).
29. Growth of straight nanotubes with a cobalt-nickel catalyst by chemical vapor deposition
Sun LF, Mao JM, and et al., APPLIED PHYSICS LETTERS 74, 644(1999).
30. Structure and morphology of carbon nanotubes grown on zeolite-supported catalysts by chemical vapor deposition, Sun LF, Mao JM, et al., ACTA PHYSICA SINICA-OVERSEAS EDITION 8, 545(1999).
31. Growth of carbon nanotubes on cobalt disilicide precipitates by chemical vapor deposition, Mao JM, Sun LF, Qian LX, et al., APPLIED PHYSICS LETTERS 72, 3297(1998).
32. AuPd catalytic nanoparticle size effect on the formation of amorphous silicon nanowires
Liu ZQ, Sun LF, Tang DS, et al., CHINESE PHYSICS 9, 774(2000).
33. Growth of amorphous silicon nanowires, Liu ZQ, Zhou WY, Sun LF, et al., CHEMICAL PHYSICS LETTERS 341, 523(2001).
34. Nanosized nickel(or cobalt)/graphite composites for hydrogen storage, Zhong ZY, Xiong ZT, Sun LF, et al., JOURNAL OF PHYSICAL CHEMISTRY B 106, 9507(2002).
35. Effect of acetylene in buffer gas on the microstructures of carbon nanotubes in arc discharge, Tang DS, Xie SS, Chang BH, Sun LF, et al., NANOTECHNOLOGY 13, L1(2002).
36. Dispersing and coating of transition metals Co, Fe and Ni on carbon materials, Zhong ZY, Liu BH, Sun LF, et al., CHEMICAL PHYSICS LETTERS 362, 135(2002).

37. Fabrication, characterization and property of aligned multi-walled carbon nanotubes, Xie SS, Zhou WY, Pan ZW, Chang BH, Li WZ, Lu L, Sun LF, INTERNATIONAL JOURNAL OF NONLINEAR SCIENCES AND NUMERICAL SIMULATION 3, 731(2002).
38. Preparation of monodispersed multi-walled carbon nanotubes in chemical vapor deposition, Tang DS, Xie SS, Pan ZW, Sun LF, et al., CHEMICAL PHYSICS LETTERS 356, 563(2002).
39. Raman scattering and thermogravimetric analysis of iodine-doped multiwall carbon nanotubes, Zhou WY, Xie SS, Sun LF, et al., APPLIED PHYSICS LETTERS 80, 2553(2002).
40. Preparation of very long and open aligned carbon nanotubes, Pan ZW, Chang BH, Sun LF, et al., SCIENCE IN CHINA SERIES A 43, 210(2000).
41. Conductivity and magnetic susceptibility of nanotube/polypyrrole nanocomposites, Chang BH, Liu ZQ, Sun LF, et al., JOURNAL OF LOW TEMPERATURE PHYSICS 119, 41(2000).
42. Catalytic synthesis of straight silicon nanowires over Fe containing silica gel substrates by chemical vapor deposition, Liu ZQ, Xie SS, Zhou WY, Sun LF, et al., JOURNAL OF CRYSTAL GROWTH 224, 230(2001).
43. Very low-field emission from aligned and opened carbon nanotube arrays, Pan ZW, Au FCK, Lai HL, Zhou WY, Sun LF, et al., JOURNAL OF PHYSICAL CHEMISTRY B 105, 1519(2001).
44. Carbon nanotube arrays, Xie SS, Li WZ, Pan ZW, Chang BH, Sun LF, MATERIALS SCIENCE AND ENGINEERING A 286, 11(2000).
45. Carbon nanotube arrays, Xie SS, Li WZ, Pan ZW, Chang BH, Sun LF, EUROPEAN PHYSICAL JOURNAL D 9, 85(1999).
46. Mechanical and physical properties on carbon nanotube, Xie SS, Li WZ, Pan ZW, Chang BH, Sun LF, JOURNAL OF PHYSICS AND CHEMISTRY OF SOLIDS 61, 1153(2000).
47. The electrical behavior of carbon nanotubes under high pressure, Tang DS, Bao ZX, Wang LJ, Chen LC, Sun LF, et al., JOURNAL OF PHYSICS AND CHEMISTRY OF SOLIDS 61, 1175(2000).
48. Evidence for an open-ended nanotube growth model in arc discharge, Tang DS, Xie SS, Liu W, Chang BH, Sun LF, et al., CARBON 38, 480(2000).
49. Behavior of carbon nanotubes under high pressure and high temperature, Tang DS, Chen LC, Wang LJ, Sun LF, et al., JOURNAL OF MATERIALS RESEARCH 15, 560(2000).
50. Synthesis and characterization of aligned carbon nanotube arrays, Xie SS, Chang BH, Li WZ, Pan ZW, Sun LF, et al., ADVANCED MATERIALS 11, 1135(1999).
51. Tensile tests of ropes of very long aligned multiwall carbon nanotubes, Pan ZW, Xie SS, Lu L, Chang BH, Sun LF, et al., APPLIED PHYSICS LETTERS 74, 3152(1999).
52. Direct growth of aligned open carbon nanotubes by chemical vapor deposition, Pan ZW, Xie SS, Chang BH, Sun LF, et al., CHEMICAL PHYSICS LETTERS 299, 97 (1999).

承担科研项目情况：

参加的科研主要项目有：

- 2000.5-2001.4: 参加新加坡国立大学项目《碳纳米管储氢技术研究》。主要任务为电弧法制备碳纳米管的储氢性能研究。
- 2001.5-2003.8: 参加欧盟项目《Self assembly of functional nanoscale elements for intramolecular electronics》。研究器件构建、性能。
- 2005.1-2005.12: 参加“863”“纳米电子材料体系及器件”课题。
- 2007.1-2011.12: 参加科技部纳米重大专项“基于一维纳米材料的新原理器件：纳米碳管为基的纳米器件”，课题执行中。

主持的科研主要项目有：

- 2005.9-2006.12: 教育部留学人员回国科研启动课题。
- 2006.1-2008.12: 国家基金委面上项目，碳纳米管内水-冰相变的研究，课题号：10574034。
- 2006.1-2006.12: 北京市传感器重点实验室课题，单壁碳纳米管气敏特性研究。
- 2008.1-2010.12: 国家基金委面上项目，单壁碳纳米管做为纳米发电机的研究，课题号：10774032。
- 2010.1-2012.12: 国家基金委重大研究计划培育项目，碳纳米管晶体碱金属掺杂及可能的超导研究，课题号：90921001。

理事单位 (<http://www.nanoctr.cas.cn/lstdw2017/>) | 机构设置 (<http://www.nanoctr.cas.cn/jgsz2017/>) |

挂靠单位 (<http://www.nanoctr.cas.cn/gkdw2017/>) | 博士后流动站 (<http://www.nanoctr.cas.cn/bshldz2017/>) |

招生咨询 (<http://page.renren.com/601127764?checked=true>) | 主任信箱 (<http://www.nanoctr.cas.cn/zrxx2017/>) |

信访举报 (<http://www.nanoctr.cas.cn/xfbj/>) | 友情链接 (<http://www.nanoctr.cas.cn/xpli/vali2017/>)