

List of Publications

1. **Shangfeng Yang**, Alexey Popov, Lothar Dunsch, “Breaking the IPR by Chemical Bonding — The Endohedral Non-IPR C₇₀ Cage of Sc₃N@C₇₀”, *Angew. Chem. Int. Ed.* **2007**, *46*, 1256-1259.
2. **Shangfeng Yang**, Peter Rapta, Lothar Dunsch, “The Spin State of a Charged Non-IPR Fullerene: The Stable Radical Cation of Sc₃N@C₆₈”, *Chem. Commun.* **2007**, 189-191.
3. Alexey A. Popov, Matthias Krause, **Shangfeng Yang**, Joanna Wong, Lothar Dunsch, “C₇₈ cage isomerism defined by trimetallic nitride cluster size: a computational and vibrational spectroscopic study”, *J. Phys. Chem. B* **2007**, in press (DOI: 10.1021/jp068661r).
4. Lothar Dunsch, **Shangfeng Yang**, “Metal Nitride Cluster Fullerenes – The Recent State and Prospects”, *Small* **2007**, submitted (DOI: 10.1002/sml.200700036) (*invited review*).
5. **Shangfeng Yang**, Lothar Dunsch, “Di- and Tridysprosium Endohedral Metallofullerenes with Cages from C₉₄ to C₁₀₀”, *Angew. Chem. Int. Ed.* **2006**, *45*, 1299-1302; *Angew. Chem.* **2006**, *118*, 1321-1324.
6. **Shangfeng Yang**, Sergey I. Troyanov, Alexey Popov, Matthias Krause, Lothar Dunsch, “Deviation from the Planarity — a Large Dy₃N Cluster Encapsulated in an I_h-C₈₀ Cage: An X-ray Crystallographic and Vibrational Spectroscopic Study”, *J. Am. Chem. Soc.* **2006**, *128*, 16733-16739.
7. **Shangfeng Yang**, Lothar Dunsch, “Expanding the Number of Stable Isomeric Structures of the C₈₀ Cage: A New Fullerene Dy₃N@C₈₀”, *Chem. Eur. J.* **2006**, *12*, 413-419.
8. **Shangfeng Yang**, Michal Zalibera, Peter Rapta, Lothar Dunsch, “The Charge-induced Reversible Rearrangement of Endohedral Fullerenes: Electrochemistry of Tridysprosium Nitride Clusterfullerenes Dy₃N@C_{2n} (2n = 78, 80)”, *Chem. Eur. J.* **2006**, *12*, 7848-7855.
9. **Shangfeng Yang**, Martin Kalbac, Alexey Popov, Lothar Dunsch, “A Facile Route to the non-IPR Fullerene Sc₃N@C₆₈: Synthesis, Spectroscopic Characterizations and DFT Computations”, *Chem. Eur. J.* **2006**, *12*, 7856-7862.
10. **Shangfeng Yang**, Martin Kalbac, Alexey Popov, Lothar Dunsch, “Gadolinium-based Mixed-Metal Nitride Clusterfullerenes Gd_xSc_{3-x}N@C₈₀ (x=1, 2)”, *ChemPhysChem* **2006**, *7*, 1990-1995.
11. Lothar Dunsch, **Shangfeng Yang**, “The Recent State of Endohedral Fullerene Research”, *Electrochem. Soc. Interface* **2006**, *15*(2), 34-39 (*invited review*).
12. H. Shiozawa, H. Rauf, T. Pichler, M. Knupfer, M. Kalbac, **S. Yang**, L. Dunsch, B. Büchner, D. Batchelor, H. Kataura, “Filling factor and electronic structure of Dy₃N@C₈₀ filled single wall carbon nanotubes”, *Phys. Rev. B.* **2006**, *73*, 205411-1-6.
13. H. Shiozawa, H. Rauf, D. Grimm, M. Knupfer, M. Kalbac, **S. Yang**, L. Dunsch, B. Büchner, T. Pichler, “Charge distribution of potassium intercalated Dy₃N@C₈₀ observed with core-level and valence-band photoemission”, *Phys. Stat. Sol. B.* **2006**, *243*, 3004-3007.
14. **Shangfeng Yang**, Lothar Dunsch, “A Large Family of Dysprosium-based Trimetallic Nitride Endohedral Fullerenes: Dy₃N@C_{2n} (39 ≤ n ≤ 44)”, *J. Phys. Chem. B.* **2005**, *109*, 12320-12328.

15. **Shangfeng Yang**, Xiaogang Wen, Weixin Zhang, Shihe Yang, "Photoelectrochemistry of Pure and Core/Sheath Nanowire Arrays of Cu₂S Directly Grown on Copper Electrodes", *J. Electrochem. Soc.* **2005**, *152*, G220-G226.
16. H. Shiozawa, H. Rauf, T. Pichler, D. Grimm, X. Liu, M. Knupfer, M. Kalbac, **S. Yang**, L. Dunsch, B. Büchner, D. Batchelor, "Electronic structure of the trimetal nitride fullerene Dy₃N@C₈₀", *Phys. Rev. B.* **2005**, *72*, 195409-1-5.
17. Louzhen Fan, **Shangfeng Yang**, Shihe Yang, "Electroactive Metallofullerene Film Electrodes in Aqueous Solutions", *J. Electroanal. Chem.* **2005**, *574*, 273-283.
18. Louzhen Fan, **Shangfeng Yang**, Shihe Yang, "Thin Films of Endohedral Metallofullerenes Embedded in Polythiophene: A Facile Electrochemical Preparation", *Thin Solid Films* **2005**, *483*, 95-101.
19. Louzhen Fan, **Shangfeng Yang**, Shihe Yang, "The development of functional endohedral metallofullerene materials", *Fullerenes Nanotubes and Carbon Nanostructures* **2005**, *13*, 155-158.
20. **Shangfeng Yang**, Louzhen Fan, Shihe Yang, "Langmuir-Blodgett Films of Poly(3-hexylthiophene) Doped with the Endohedral Metallofullerene Dy@C₈₂: Preparation, Characterization, and Application in Photoelectrochemical Cells", *J. Phys. Chem. B.* **2004**, *108*, 4394-4404.
21. **Shangfeng Yang**, Louzhen Fan, Shihe Yang, "Significantly Enhanced Photocurrent Efficiency of a Poly(3-hexylthiophene) Photoelectrochemical Device by Doping with the Endohedral Metallofullerene Dy@C₈₂", *Chem. Phys. Lett.* **2004**, *388*, 253-258.
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24. **Shangfeng Yang**, Louzhen Fan, Shihe Yang, "Preparation, Characterization, and Photoelectrochemistry of Langmuir-Blodgett Films of the Endohedral Metallofullerene Dy@C₈₂ Mixed with Metallophthalocyanines", *J. Phys. Chem. B.* **2003**, *107*, 8403-8411.
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27. Kedong Wang, Jin Zhao, **Shangfeng Yang**, Lan Chen, Qunxiang Li, Bing Wang, Shihe Yang, Jinlong Yang, J. G. Hou, Qingshi Zhu, "Unveiling Metal-Cage Hybrid States in a Single Endohedral Metallofullerene", *Phys. Rev. Lett.* **2003**, *91*, 185504-1-4.

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31. **Shangfeng Yang**, Shihe Yang, "Photoelectrochemistry of Langmuir-Blodgett Films of the Endohedral Metallofullerene Dy@C₈₂ on ITO Electrodes", *J. Phys. Chem. B.* **2001**, *105*, 9406-9412.
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33. Xiaogang Li, Shihe Yang, Yu Xu, **Shangfeng Yang**, Yunqi Liu, Daoben Zhu, Chunlei Yang, Jiannong Wang, Weikun Ge, "Photoconductivity of Poly(N-vinylconbozole) (PVK) Doped with the Metallofullerene Dy@C₈₂ and the Fullerene C₈₄ and C₆₀", *Israel Journal of Chemistry* **2001**, *41*, 45-50 (invited).
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35. **Shangfeng Yang**, Genbo Su, Jing Tang, Bingwei Mao, Jianmin Wu, Zhengdong Li, "Surface Topography of Rapidly Grown KH₂PO₄ Crystals with Additives: Ex situ Investigation by Atomic Force Microscopy", *Journal of Crystal Growth*, **1999**, *203*, 425-433.
36. **Shangfeng Yang**, Genbo Su, Zhengdong Li, Rihong Jiang, "Rapid Growth of KDP Crystals in Aqueous Solution with Additives", *Journal of Crystal Growth*, **1999**, *197*, 383-387.
37. **Shangfeng Yang**, Genbo Su, Zhengdong Li, Rihong Jiang, "Rapid Growth of KDP Crystals with Additives", *Journal of Synthetic Crystals*, **1999**, *28*, 42-47.