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职务职称: 原子分子簇科学教育部重点实验室主任、教授、博士生导师

学术兼职: 院教授委员会主任、校理学与材料学部副主任、第九届校学术委员会委员、第十一届校学位评定委员会委员；三个教育部重点实验室、五个省级重点实验室学术委员会委员、中国复合材料学会矿物复合材料专业委员会副主任委员、中国化学会无机化学专业委员会委员、中国化学会晶体化学专业委员会委员、《无机化学学报》、《高等学校化学学报》/《Chemical Research in Chinese Universities》及《结构化学》编委等。

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招生专业: 化学、化学工程 (学习过四大化学)

研究方向: 氧合团簇化学, 包括: (1) 过渡金属氧合团簇; (2) 稀土氧合团簇; (3) 锆氧团簇; (4) 硼氧团簇; (5) 混合金属氧合团簇; (6) 硼锆氧合团簇; (7) 氧合团簇有机骨架; (8) 基于氧合团簇单元构建的催化、二阶非线性光学(激光)、多孔、光电磁、吸附及离子交换材料等。

团队招聘: 欢迎优秀博士毕业生加盟本团队从事**博士后**研究 (团队岗博士后年薪 20 万起, 入选博新计划的年薪 40 万起), 同时招聘**长聘教授、国家级青年人才、准聘教授、预聘副(助理)教授等高层次人才!** 具有配位化学、晶体工程、催化化学及氧合团簇化学背景的博士优先考虑。

荣誉奖励: 长江学者、国家杰青、新世纪百千万人才工程国家级人选、国务院政府特殊津贴专家、中科院引进国外杰出人才暨百人计划; 卢嘉锡优秀导师奖、中科院优秀研究生指导教师奖、中科院朱李月华优秀教师奖、国家自然科学基金二等奖(第一完成人)、福建省自然科学奖一等奖(第一完成人); 2014~2018 年入选 Elsevier 中国高被引学者(Most Cited Chinese Researchers)榜单(化学科学领域)。

教育背景:

1995/09—1998/06	吉林大学化学系	无机化学专业	博士
1988/09—1991/06	吉林大学化学系	无机化学专业	硕士
1985/02—1988/06	吉林大学化学系	化学专业	本科
1983/09—1985/01	齐齐哈尔轻工学院轻化系(现齐齐哈尔大学化工系)	工业分析专业	本科

工作经历:

2016/06—至今	北京理工大学	化学与化工学院	无机化学系	教授
2014/09—2016/06	北京理工大学	化学学院	无机化学系	教授
2001/05—2014/09	中科院福建物质结构研究所	结构化学国家重点实验室		研究员
2000/12—2001/05	Stockholm University (瑞典)	物理、无机与结构化学系		博士后
1998/12—2000/11	University of Notre Dame (美国)	化学与生物化学系		博士后
1991/10—2001/05	吉林大学化学系	簇合物研究室		助教(91年)/讲师(93年)/副教授(96年)
1987/07—1991/09	齐齐哈尔轻工学院	轻化系	无机化学教研室	助教 (在职攻读学位)



杨国昱教授在国家科学技术奖励大会上领奖

曾在吉林大学学习与工作十七年(含国外从事博士后的时间): 88年吉林大学本科毕业, 91年硕士毕业后留化学系工作, 96年破格晋升为副教授, 98年博士毕业, 此间主要从事卟啉类配合物的合成与光化学及金属氧合团簇的水热化学等研究。博士后期间主要从事硼磷酸盐与微、中及大孔晶体材料的合成、结构及功能研究。2000年11月入选中科院“引进国外杰出人才暨百人计划”, 2001年5月回国, 到中科院福建物质结构研究所工作。2014年9月调到北京理工大学化学学院工作。

曾多次参加国内外学术会议并做大会报告及邀请报告。同时应邀为 *Chem. Rev.*、*Chem. Soc. Rev.*、*Acc. Chem. Res.*、*Nat. Chem.*、*Nat. Rev. Mater.*、*Angew. Chem. Int. Ed.*、*J. Am. Chem. Soc.*、*Energy Envir. Sci.*、*Coord. Chem. Rev.*、*Chem.-Eur. J.*、*ChemComm*、*Inorg. Chem.*、*Chem. Mater.*、*J. Mater. Chem.*等40余种国内外学术期刊审稿。

人才培养: 已培养青年人才60余人, 包括全国优秀博士论文提名奖1人(现为闽江学者特聘教授、国家级青年人才)、中科院优秀博士论文奖1人、中科院优秀博士论文提名奖2人、卢嘉锡优秀研究生奖4人、中科院院长奖学金优秀奖2人、宝钢优秀研究生奖1人、中科院刘永龄奖学金特别奖2人(优秀奖1人)、研究生国家奖学金3人、优秀毕业研究生奖多人。

承担项目: 中科院“引进国外杰出人才暨百人计划”基金、国家重大科学研究计划(973)课题、国家杰出青年科学基金、国家自然科学基金重大研究计划重点项目、国家自然科学基金重点及面上项目等。

研究成果: 至2018年3月, 已申请中国发明专利12项(授权9项)并在 *Chem. Rev.*、*Chem. Soc. Rev.*、*Angew. Chem. Int. Ed.*、*J. Am. Chem. Soc.*、*ChemComm*、*J. Mater. Chem.*、*Chem.-Eur. J.*及 *Inorg. Chem.*等主流刊物上发表研究论文430余篇, 单篇最高他引600余次。主编《氧基簇合物化学》专著一部, 在《*Modern Inorganic Synthetic Chemistry*》、《21世纪的无机化学》、《*Structural Inorganic Chemistry*》及《无机化学学科前沿与展望》等专著中撰写专章或章节。代表性论文如下:

1. S.-S. Wang, G.-Y. Yang*, Recent advances in polyoxometalate-catalyzed reactions, *Chem. Rev.*, 2015, 115, 4893-4962.
2. S.-T. Zheng, G.-Y. Yang*, Recent advances in paramagnetic-TM-substituted polyoxometalates (TM = Mn, Fe, Co, Ni, Cu), *Chem. Soc. Rev.*, 2012, 41, 7623-7646.
3. W.-H. Fang, G.-Y. Yang*, Induced aggregation and synergistic coordination strategy in cluster organic architectures, *Acc. Chem. Res.*, 2018, 51, 2888-2896.
4. J.-X. Liu, X.-B. Zhang, Y.-L. Li, S.-L. Huang*, G.-Y. Yang*, Polyoxometalate functionalized architectures, *Coord. Chem. Rev.*, 2020, online.
5. L. Huang, S.-S. Wang, J.-W. Zhao*, L. Cheng, G.-Y. Yang*, A giant Zr₂₄-cluster-substituted polyoxometalate and its oxygenation reaction of thioethers, *J. Am. Chem. Soc.*, 2014, 136, 7637-7642.
6. J. Zhou, J.-W. Zhao, Q. Wei, J. Zhang, G.-Y. Yang*, Two tetra-Cd^{II}-substituted vanadogermanate frameworks, *J. Am. Chem. Soc.*, 2014, 136, 5065-5701.
7. S.-T. Zheng, J. Zhang, X.-X. Li, W.-H. Fang, G.-Y. Yang*, Cubic polyoxometalate-organic molecular cage, *J. Am. Chem. Soc.*, 2010, 132, 15102-15103.
8. H. He, G.-J. Cao, S.-T. Zheng, G.-Y. Yang*, Lanthanide germanate cluster organic frameworks constructed from {Ln₈Ge₁₂} or {Ln₁₁Ge₁₂} cage cluster building blocks, *J. Am. Chem. Soc.*, 2009, 131, 15588-15589.
9. X.-X. Li, Y.-X. Wang, R.-H. Wang*, C.-Y. Cui, C.-B. Tang, G.-Y. Yang*, Designed assembly of heterometallic cluster-organic frameworks based on Anderson-type polyoxometalate clusters, *Angew. Chem. Int. Ed.*, 2016, 55, 6462-6466.
10. L. Wei, Q. Wei, Z.-E. Lin*, Q. Meng, H. He, B.-F. Yang, G.-Y. Yang*, A 3D aluminoborate open-framework interpenetrated by 2D zinc-amine coordination-polymer networks in its 11-ring channels, *Angew. Chem. Int. Ed.*, 2014, 53, 7188-7191.
11. S.-T. Zheng, J. Zhang, J. M. Clemente-Juan*, D.-Q. Yuan, G.-Y. Yang*, Poly(polyoxotungstate)s with 20 nickel centers: from nanoclusters to one-dimensional chains, *Angew. Chem. Int. Ed.*, 2009, 48, 7176-7179 (Inside Cover).

12. S.-T. Zheng, J. Zhang, G.-Y. Yang*, Designed synthesis of POM-organic frameworks by $\{Ni_6PW_9\}$ building blocks under hydrothermal conditions, *Angew. Chem. Int. Ed.*, 2008, 47, 3909-3913 (Cover).
13. G.-Z. Liu, S.-T. Zheng, G.-Y. Yang*, $In_2Ge_6O_{15}(OH)_2(H_2dien)$: An open-framework indate germanate with one-dimensional 12-ring channels, *Angew. Chem. Int. Ed.*, 2007, 46, 2827-2830.
14. J.-W. Cheng, J. Zhang, S.-T. Zheng, M.-B. Zhang, G.-Y. Yang*, Lanthanide-transition-metal sandwich framework comprising $\{Cu_3\}$ cluster pillars and layered networks of $\{Er_{36}\}$ wheels, *Angew. Chem. Int. Ed.*, 2006, 45, 73-76.
15. Z.-E. Lin, J. Zhang, J.-T. Zhao, S.-T. Zheng, C.-Y. Pan, G.-M. Wang, G.-Y. Yang*, A germanate framework containing 24-ring channels, Ni-Ge bonds, and chiral $[Ni@Ge_{14}O_{24}(OH)_3]$ cluster motifs transferred from chiral metal complexes, *Angew. Chem. Int. Ed.*, 2005, 44, 6881-6884.
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19. J.-J. Wang, G.-Y. Yang*, A novel supramolecular magnesoborate framework with snowflake-like channels built by unprecedented huge B_{69} cluster cages, *ChemComm*, 2017, 53, 10398-10401.
20. J.-W. Zhao*, Y.-Z. Li, L.-J. Chen, G.-Y. Yang*, Research progress on polyoxometalate-based transition-metal-rare-earth heterometallic derived materials: synthetic strategies, structural overview and functional applications, *ChemComm*, 2016, 52, 4418-4445 (Review article).
21. W.-H. Fang, L. Zhang, J. Zhang, G.-Y. Yang*, Halogen dependent symmetry change in two series of wheel cluster organic frameworks built, from La_{18} tertiary building units, *ChemComm*, 2016, 52, 1455-1457.
22. G.-J. Cao, W.-H. Fang, J.-W. Cheng*, Q. Wei, L. Cheng, G.-Y. Yang*, A zeolite CAN-type aluminoborate with extra-large 24-ring channels, *ChemComm*, 2016, 52, 1729-1732.
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45. X.-X. Li, W.-H. Fang, J.-W. Zhao*, G.-Y. Yang*, The first 3-connected SrSi₂-type 3-D chiral framework constructed from {Ni₆PW₉} building units, *Chem. Eur. J.*, 2015, 21, 2315-2318 (inside cover).
46. X.-X. Li, W.-H. Fang, J.-W. Zhao*, G.-Y. Yang*, Hydrothermal combination of trilacunary dawson phosphortungstates and hexa-Ni clusters: from isolated cluster to 3-D framework, *Chem. Eur. J.*, 2014, 20, 17324-17332.
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48. L. Cheng, Q. Wei, H.-Q. Wu, L.-J. Zhou, G.-Y. Yang*, Ba₃M₂[B₃O₆(OH)]₂[B₄O₇(OH)₂] (M = Al, Ga): Two novel UV non-linear optical metal borate containing two types of oxoboron clusters, *Chem. Eur. J.*, 2013, 19, 17662-17667.
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51. J. Zhou, W.-H. Fang, C. Rong, G.-Y. Yang*, A series of open-framework aluminoborates templated by transition metal complexes, *Chem. Eur. J.*, 2010, 16, 4852-4863.
52. J.-W. Zhao, C.-M. Wang, J. Zhang, S.-T. Zheng, G.-Y. Yang*, Combination of lacunary polyoxometalates and high-nuclear transition metal clusters under hydrothermal conditions: IX. a series of novel polyoxotungstates sandwiched by octa-copper clusters, *Chem. Eur. J.*, 2008, 14, 9223-9239.

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54. J.-W. Cheng, J. Zhang, S.-T. Zheng, G.-Y. Yang*, Linking two distinct layered networks of nanosized $\{\text{Ln}_{18}\}$ and $\{\text{Cu}_{24}\}$ wheels through isonicotinate ligands, *Chem. Eur. J.*, 2008, 14, 88-97.
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