李亚栋

单位：化学与材料科学学院

地址：合肥市中科大东区环资楼438

邮编：230026

电话：0551-63601600

个人主页： http://dslx.ustc.edu.cn/?menu=expert\_paper&expertid=4755

个人简历

李亚栋，男，汉族，1964年11月生于安徽省宿松县。现任清华大学化学系教授、博士生导师，无机化学研究所所长，系学术委员会主任。2011年当选为中国科学院院士。2012年在中国科学技术大学成立院士工作室。

2000年获国家杰出青年科学基金，2001年被聘为教育部“长江特聘教授”。曾先后获得2000年中国科学院自然科学奖一等奖、2001年国家自然科学奖二等奖、2006年北京市科学技术奖一等奖，2008年国家自然科学奖二等奖。担任学术期刊：Nano Research、《科学通报》副主编，《中国科学B辑：化学》等编委和Inorg. Chem.、Chem. Mater.顾问编委。

主要从事无机纳米材料合成化学研究，包括单分散纳米晶可控合成与组装、一维纳米材料制备与形成机理、贵金属与其他金属的复合物及其催化应用等。提出了纳米晶“液相－固相－溶液”界面调控机制，实现了不同类型纳米晶的可控制备；将水热、溶剂热合成技术成功应用于新型一维纳米材料的合成，实现了金属铋、钛酸盐、硅酸盐、钒酸盐、稀土化合物等纳米线、纳米管的制备，揭示了液相条件下纳米晶的取向生长规律性；提出金属间化合物、合金表观电负性概念及其计算经验公式，建立了比传统高温合成金属间化合物、合金材料低400－500度的低温合成方法，在贵金属与其它过渡金属、主族等金属间化合物、合金材料的合成与制备方面取得了新的重要进展。

李亚栋教授先后培养博士生10余名，其中3人获得全国优秀博士学位论文奖，2人已获得国家杰出青年科学基金资助。作为学术带头人和首席科学家主持国家自然科学基金委创新研究群体项目和科技部纳米重大研究计划项目，在国际学术期刊上发表论文200余篇，其中1篇Nature、1篇Science、13篇JACS.、17篇Angew. Chem.；应邀为Acc. Chem. Res.（2篇）、Chem. Soc. Rev. (1篇)等撰写综述7篇；通讯作者论文他人总引用15000余次。

研究方向

无机化学

材料化学

招生信息

热爱化学，热爱科研，对科研有强烈的好奇心和坚定的毅力。

论文专著

1) Reversely trapping atoms from a perovskite surface for high-performance and durable fuel cell cathodes - Reversely trapping atoms from a perovskite surface for high-performance and durable fuel cell cathodes - 2022

2) CO2-mediated organocatalytic chlorine evolution under industrial conditions - CO2-mediated organocatalytic chlorine evolution under industrial conditions - 2023

Name: Li Yadong

Affiliation: School of Chemistry and Materials Science

Address: No. 438, Environmental Resource Building, East Campus of the University of Science and Technology of China, Hefei City, 230026

Phone: 86-551-63601600

Personal Homepage: http://dslx.ustc.edu.cn/?menu=expert\_paper&expertid=4755

Personal Resume

Li Yadong, male, Han nationality, was born in November 1964 in Susong County, Anhui Province. He is currently a professor in the Department of Chemistry of Tsinghua University, a doctoral advisor, the director of the Institute of Inorganic Chemistry, and the director of the Academic Committee of the Department of Chemistry. He was elected as an academician of the Chinese Academy of Sciences in 2011, and he established an academician workstation at the University of Science and Technology of China in 2012.

He received the National Science Fund for Distinguished Young Scholars in 2000, and was appointed as a “Distinguished Professor under the Changjiang Scholars Program” of the Ministry of Education in 2001. He has received several awards, including the First Prize of the Natural Science Award of Chinese Academy of Sciences in 2000, the Second Prize of the National Natural Science Award in 2001, the First Prize of the Beijing Science and Technology Award in 2006, and the Second Prize of the National Natural Science Award in 2008. He serves as the deputy editor of academic journals such as Nano Research and Chinese Science Bulletin, and as an editorial board member of Science China Series B: Chemistry, as well as an advisory board member of Inorg. Chem. and Chem. Mater.

His research focuses on the chemistry of inorganic nanomaterials synthesis, including the controlled synthesis and assembly of monodisperse nanocrystals, the preparation and formation mechanisms of one-dimensional nanomaterials, and the composites of noble metals with other metals and their catalytic applications. He proposed the "liquid-solid-solution" interface regulation mechanism for nanocrystals, achieving the controlled preparation of different types of nanocrystals. He successfully applied hydrothermal and solvothermal synthesis techniques to the synthesis of novel one-dimensional nanomaterials, achieving the preparation of nanowires and nanotubes of bismuth metals, titanates, silicates, vanadates, and rare earth compounds, and revealing the regularity of oriented growth of nanocrystals under liquid-phase conditions. He proposed the concept of apparent electronegativity of intermetallic compounds and alloys and their empirical calculation formula, establishing a low-temperature synthesis method that is 400-500 degrees lower than the traditional high-temperature synthesis of intermetallic compounds and alloy materials, and making new significant progress in the synthesis and preparation of intermetallic compounds and alloy materials of noble metals and other transition and main group metals.

Professor Li Yadong has supervised over 10 doctoral students, three of whom have received the National Excellent Doctoral Dissertation Award, and two have been supported by the National Science Fund for Distinguished Young Scholars. As an academic leader and chief scientist, he has led the Innovative Research Group Project of the National Natural Science Foundation of China and the Key Research Program on Nanotechnology of the Ministry of Science and Technology. He has published more than 200 papers in international academic journals, including one in Nature, one in Science, 13 in JACS, and 17 in Angew. Chem. He has also written seven review articles upon invitation for journals such as Acc. Chem. Res. (2 articles) and Chem. Soc. Rev. (1 article). His papers as a corresponding author have been cited over 15,000 times.

Research Directions

Inorganic Chemistry

Materials Chemistry

Admissions Information

Passionate about chemistry and scientific research, with a strong curiosity and determination for scientific research.

Publications and Monographs

1) Reversely trapping atoms from a perovskite surface for high-performance and durable fuel cell cathodes - 2022

2) CO2-mediated organocatalytic chlorine evolution under industrial conditions - 2023