

固态电池消息频出，产业化进程加速

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投资要点：

- **厦钨新能与欣旺达签署《固态电池战略合作框架协议》，加快推进固态电池产业化进程。**2024年12月11日厦钨新能与欣旺达动力签署《固态电池战略合作框架协议》，发挥双方优势，对固态电池用正极材料、固态电池用电解质及相关材料、固态电池进行合作开发，共同推进固态电池材料产业化。
- **中科固能获批江苏省科技重大专项，项目经费3500万元。**根据中科固能公众号，由中科固能、长三角物理研究中心、溧阳天目先导、江苏嘉拓联合申报、中科固能牵头负责的《成本效益型硫化物电解质及固态电池技术研发》被列入立项名单，项目经费3500万元。该项目聚焦于硫化物固态电解质与电极材料之间兼容稳定性的深入研究，攻克成本低、大批量、稳定性高、粒径小且具备高离子电导性能的硫化物固态电解质制备技术。
- **道氏技术与电子科技大学签署《项目技术委托开发合同》。**根据道氏技术12月11日公告，公司与电子科技大学签署《项目技术委托开发合同》，委托电子科技大学进行超薄金属锂负极研发，包括单面/双面锂覆铜超薄锂负极带材的开发和自支撑超薄锂负极带材的开发，合同自24年12月2日至27年12月1日。金属锂负极在固态电池领域商业化应用中面临超薄锂负极量产制备难、制备成本高等难点，本次项目针对这些问题，开发低成本、卷对卷的新型量产制备，应用连续化、大面积、超薄化制备工艺，实现超薄锂负极活性层最大厚度不超过20μm，生产成本远低于传统机械辊压法。
- **开展半固态/全固态电池新型储能示范应用。**根据集邦固态电池公众号，12月5日北京市经济和信息化局制定了《北京市新型储能产业发展实施方案（2024—2027年）》，旨在贯彻落实《北京市促进未来产业创新发展实施方案》（以下简称《方案》），把握发展机遇，整合资源优势，推动本市新型储能技术创新与产业发展。《方案》指出，作为国际科技创新中心，北京在固态电池、钠离子电池、液流电池等关键领域技术优势明显，先进压缩空气储能、飞轮储能等综合技术水平国际领先，液态金属电池、超导储能等前沿技术领域实现全面布局。发展目标方面，在新型储能产业示范区开展半固态/全固态电池、液流电池、储能安全技术、储能数据管理平台等示范应用。重点任务方面，开发高电导率、高稳定性固态电解质，突破固态电池低成本规模化生产关键工艺；鼓励昌平区、房山区和北京经济技术开发区等示范区围绕半固态/全固态电池、液流电池等高安全性储能技术路线和储能系统安全技术开展示范应用。
- **投资建议。**全固态电池具备高安全性和高能量密度的优势，在新能源车及储能领域应用场景广阔，目前多家企业布局固态电池相关研发，产业化进程加速，建议关注：（1）电池：宁德时代、国轩高科、鹏辉能源、中创新航、亿纬锂能；（2）锂电中游：厦钨新能、三祥新材、容百科技、当升科技、恩捷股份、天赐材料、尚太科技、贝特瑞、中科电气、翔丰华、璞泰来、振华新材、冠盛股份、帕瓦股份、星源材质、天力锂能、五矿新能、上海洗霸；（3）设备端：纳科诺尔、曼恩斯特、利元亨、海目星、先导智能；
- **风险提示。**固态电池技术进展不及预期；降本及产业化进程不及预期。

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APPENDIX 1

Summary

Investment Highlights:

XTC New Energy Materials (Xiamen) and Sunwoda Electronic signed a strategic cooperation agreement to accelerate solid-state battery industrialization. They will jointly develop anode materials, electrolytes, and related materials for solid-state batteries. Zhongke Solid Energy received a major project grant of RMB 35 million from Jiangsu Province, focusing on cost-effective sulfide electrolytes and solid-state battery technology. Guangdong Dowstone Technology signed a contract with the University of Electronic Science and Technology to develop ultra-thin lithium metal cathodes, addressing challenges in mass production and cost. Beijing's new energy storage plan (2024-2027) aims to advance semisolid/full solid-state batteries and other technologies, with a focus on high-conductivity, stable solid electrolytes and low-cost production. Investment advice: Solid-state batteries offer high safety and energy density, with broad applications in NEVs and energy storage. Companies to watch include Contemporary Amperex Technology, Gotion High-Tech, Guangzhou Great Power Energy & Technology, CALB Group, EVE Energy, XTC New Energy Materials (Xiamen), Sanxiang Advanced Materials, Ningbo Ronbay New Energy Technology, Beijing Easpring Material Technology, Yunnan Energy New Material, Guangzhou Tinci Materials Technology, Shijiazhuang Shangtai Technology Co., Ltd., Btr New Material Group, Hunan Zhongke Electric, Shenzhen XFH Technology, Shanghai Putailai New Energy Technology, Guizhou Zhenhua E-chem, Gsp Automotive Group Wenzhou Co.,Ltd., Zhejiang Power New Energy Co., Ltd, Shenzhen Senior Technology Material, Shanghai Emperor of Cleaning Hi-Tech, Shenzhen Manst Technology Co.,Ltd., LYRIC, Hymson Laser Technology Group, Wuxi Lead Intelligent Equipment.

Risk Warning: Solid-state battery technology and cost reduction may progress weaker than expected.

附录 APPENDIX

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优于大市，未来 12-18 个月内预期相对基准指数涨幅在 10%以上，基准定义如下

中性，未来 12-18 个月内预期相对基准指数变化不大，基准定义如下。根据 FINRA/NYSE 的评级分布规则，我们会将中性评级划入持有这一类别。

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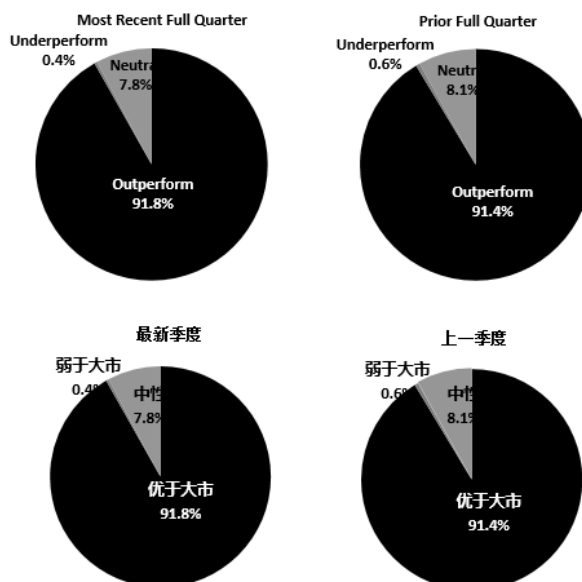
Outperform: The stock's total return over the next 12-18 months is expected to exceed the return of its relevant broad market benchmark, as indicated below.

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Ratings Distribution



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投资银行客户*	3.5%	4.4%	0.0%

*在每个评级类别里投资银行客户所占的百分比。

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买入，未来 12-18 个月内预期相对基准指数涨幅在 10%以上，基准定义如下

中性，未来 12-18 个月内预期相对基准指数变化不大，基准定义如下。根据 FINRA/NYSE 的评级分布规则，我们会将中性评级划入持有这一类别。

卖出，未来 12-18 个月内预期相对基准指数跌幅在 10%以上，基准定义如下

各地股票基准指数：日本 – TOPIX, 韩国 – KOSPI, 台湾 – TAIEX, 印度 – Nifty100; 其他所有中国概念股 – MSCI China.

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IB clients*	3.5%	4.4%	0.0%

*Percentage of investment banking clients in each rating category.

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