## 学术振告



## 液态空气储能创造低碳羔来 Liquid air energy storage for a low carbon future

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## Abstract

The past decade has seen a significant growth in the renewable energy installations driven by a global effort to combat the climate change. However, the non-dispatchable nature of most renewable energy generation and the less predictable end use demand imply a highly challenging supply-demand management for energy networks. Liquid air energy storage (LAES) is one of the most promising large-scale energy storage technologies for balancing an energy network. At off-peak hours, electricity is stored in the form of liquid air; at peak hours, electricity is recovered through expanding the liquid air. The LAES has a number of advantages including ambient pressure storage, high energy density, long life span, etc. This presentation will give an introduction of the LAES from molecular scale to system scale.

## Short Bio of Dr. Xiaohui She

折晓会,博士,T-ERA Fellow(助理研究员),英国伯明翰大学(University of Birmingham)。2016年毕业于东南大学,获博士学位;2013-2015年,国家公派美国威斯康星-麦迪逊大学(University of Wisconsin-Madison)博士联合培养;2016-2018年,英国伯明翰大学进行博士后研究;2018年至今,英国伯明翰大学T-ERA Fellow(助理研究员),主要从事能量转换与存储、超低温储能、建筑清洁供冷等研究。国际期刊ES Energy & Environments编委,美国供热、制冷和空调工程师协会(ASHRAE)会员,国际压缩空气储能联盟(ICAESA)成员,国际期刊审稿人。近五年在国际著名期刊上发表学术论文30余篇,授权/公开14项国家发明专利,参与编写3本储能专著,主持/参与英国GCRF基金、香港RGC基金、国家自然科学基金重点国际合作项目等。



