



**UNSW**  
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# 如何解决光伏产业110亿大问题？

## Solving degradation in solar modules

### Recovering 11 Billion from existing installations

School of Photovoltaics and Renewable Energy Engineering (SPREE)

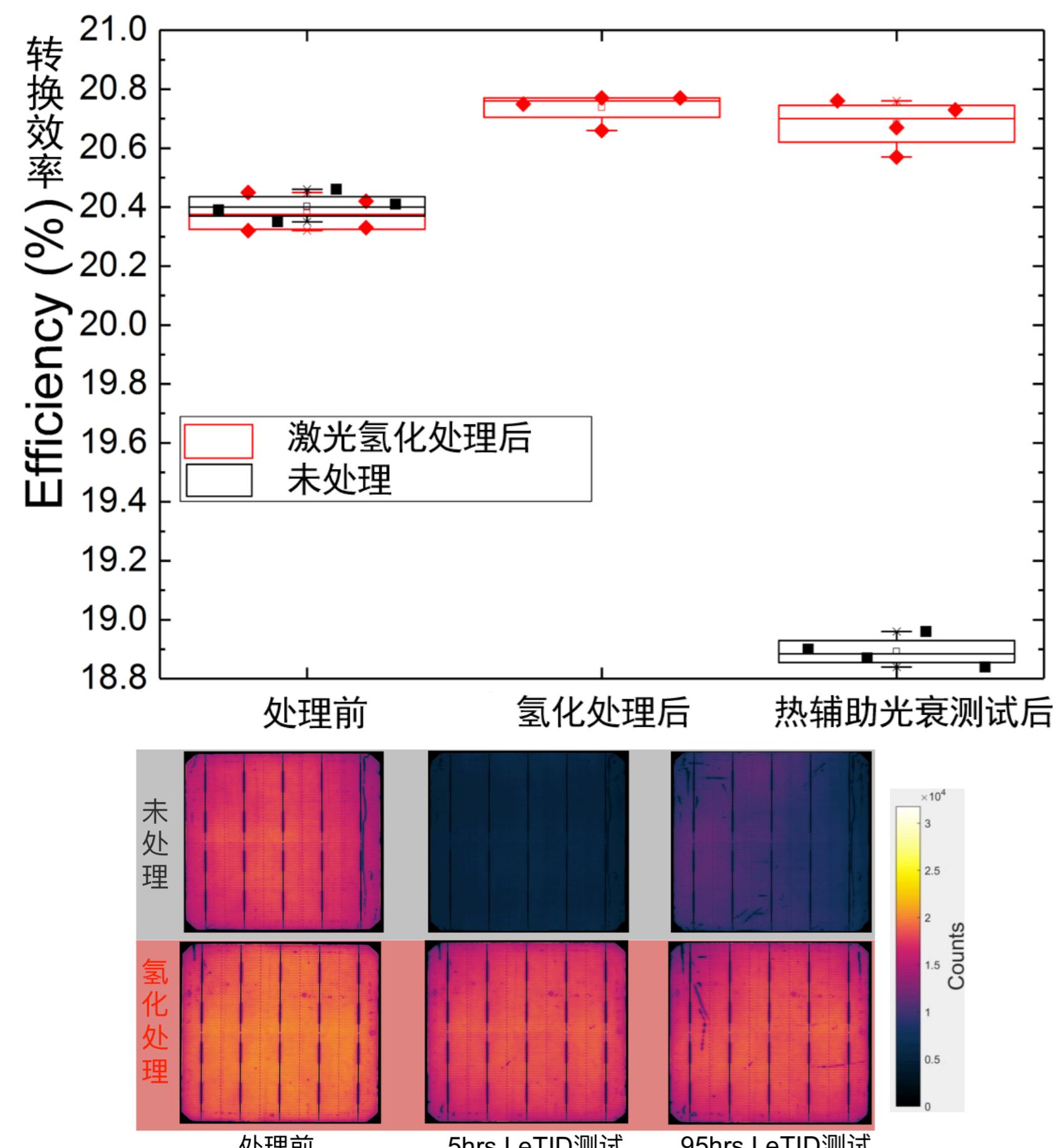
新南威尔士大学-光伏与可再生能源工程学院

#### 问题是什么? The Problem

- P型晶硅电池占市场主导地位，此种太阳能电池的光衰现象早在40多年前就观察到了
- PERC 电池的光致衰减(LID)问题，尤其是热辅助光衰(LeTID)是近年来晶硅电池技术关注热点
- 目前已安装并运营光伏组件,p型单晶硅组件光衰和热辅助光衰就带来100亿和10亿损失

#### 解决方案 Our solution

- **P-type Cz B-O LID & LeTID mitigation**
  - Reduce LID & LeTID to <1.5%
  - 10 Billion RMB problem



#### 我们的优势 Our advantages

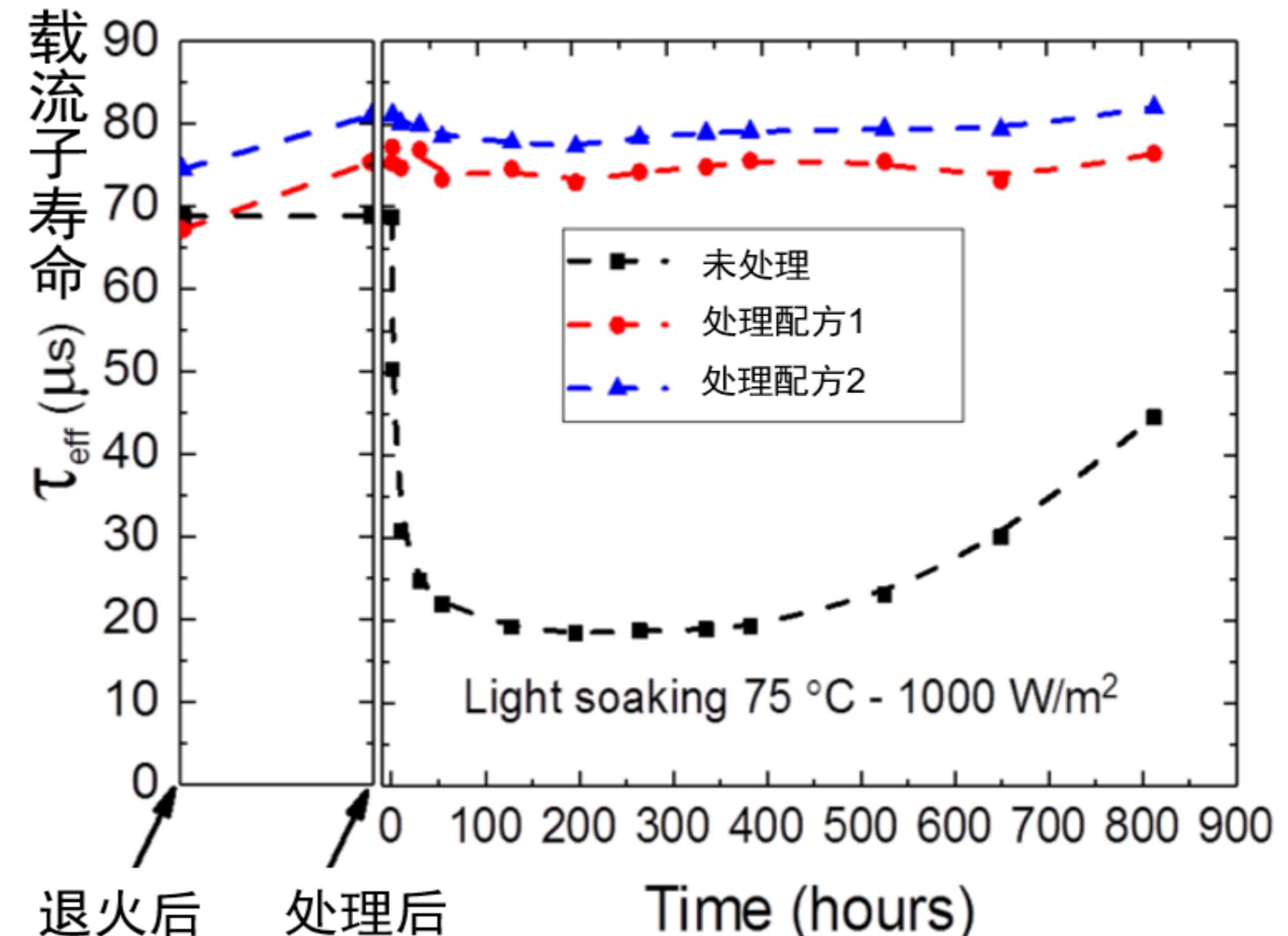
- Successfully commercialise advanced hydrogenation technology



- PV research since 1974 at UNSW
- Holds >10 world records
- World wide academic leadership



- **P-type mc-Si LeTID mitigation (ongoing)**
  - LeTID mitigation with minimum FF loss
  - 1 Billion RMB problem



#### 我们的设备 Facility and Infrastructure



##### SIRF (Solar Industry Research Facility)

- \$40M invested silicon PV pilot line
- Commercial & experimental tools
- Contribution to UNSW research & IP generation



##### TETB (Tyree Energy Technology Building)

- World-class research laboratories
- Advanced characterisation tools
- >200 researchers, 6 Prof. and 6 A/Prof

#### 世界级专家团队 Our experts



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