

AT A GLANCE

JCAP's mission is to create the scientific foundation for a scalable technology that converts carbon dioxide, water, and sunlight into renewable transportation fuels.

HISTORY

Established by the U.S. Department of Energy in 2010 as an Energy Innovation Hub, JCAP is the nation's largest research program dedicated to the advancement of artificial solar-fuels generation science and technology. The program's first phase focused on solar H₂ generation, which was completed in September 2015. JCAP has begun a 5-year renewal phase with a new research focus on solar carbon dioxide reduction to fuels.

PARTNERS

Led by the California Institute of Technology, JCAP has an integral partnership with the Lawrence Berkeley National Laboratory. Additionally, JCAP draws on the expertise and capabilities of key partners from the University of California campuses at Irvine (UCI) and San Diego (UCSD), and the SLAC National Accelerator Laboratory operated by Stanford University.

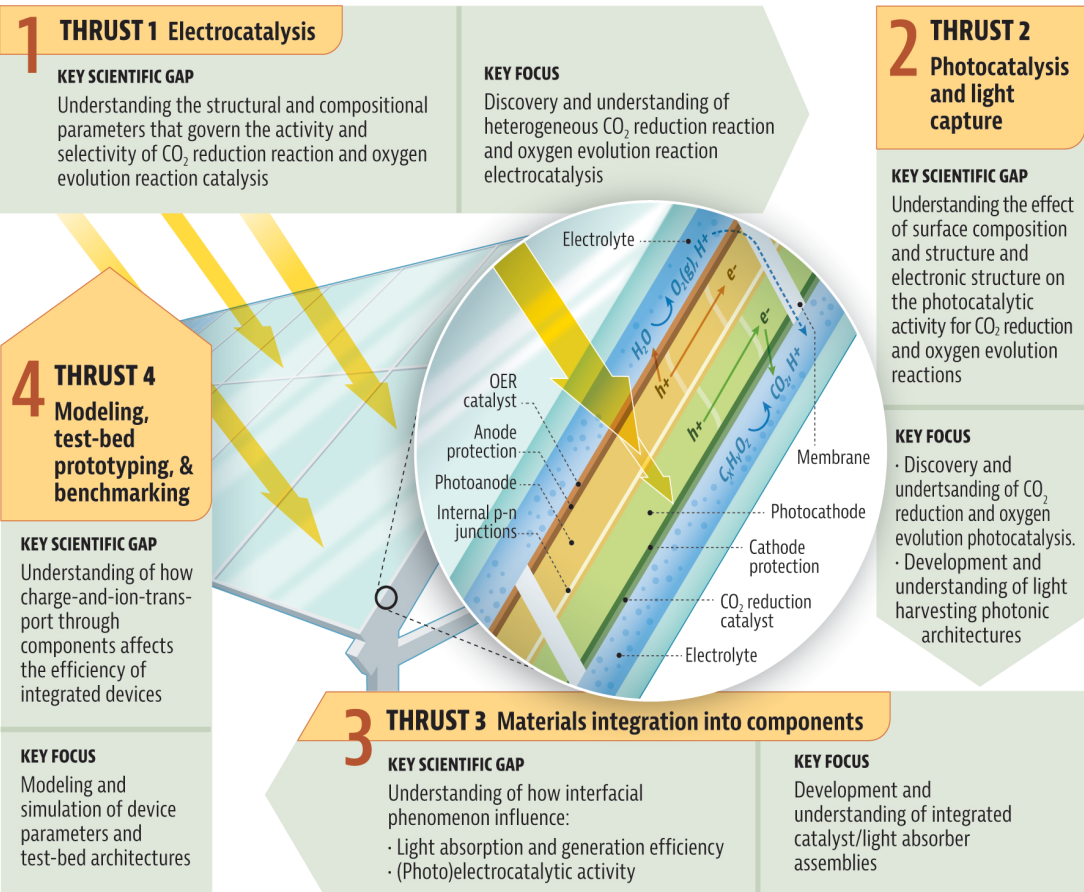
LOCATIONS

JCAP has two dedicated laboratory buildings: the Jorgensen Laboratory Building at the California Institute of Technology and Chu Hall at the Lawrence Berkeley National Laboratory.



RESEARCH STRUCTURE

Research Thrusts



DOE User Facilities Expert Group

- ⦿ ADVANCED LIGHT SOURCE
- ⦿ THE MOLECULAR FOUNDRY
- ⦿ STANFORD SYNCHROTRON RADIATION LIGHT SOURCE
- ⦿ NATIONAL ENERGY RESEARCH SCIENTIFIC COMPUTING CENTER

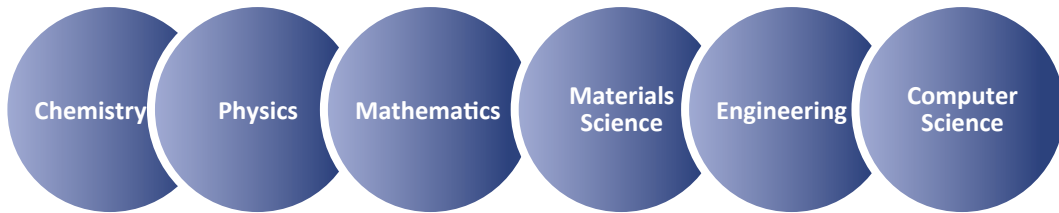
LEADERSHIP

1 Director and 2 Deputy Directors
32 Senior Scientist and Faculty Principal Investigators
Multi-institutional Governance Board

HONORS

Nobel Laureates	1
National Academies of Sciences and Engineering Members	12
National Medal of Sciences Recipients	1
American Academy of Arts and Sciences Members	8

EDUCATION, TRAINING AND EXPERTISE



JCAP fosters collaborative and cross-disciplinary team science approach to its mission.

RESEARCH OUTPUT

Peer-Reviewed Publications (2010-Present)	+ 250
IP Disclosures (2010-Present)	+ 40

CAPABILITIES

JCAP has invested in state-of-the-art instrumentation and the development of unique experimental capabilities. JCAP researchers have access to various spectrometers, microscopy set-ups, photoelectrochemical screening and analysis systems, product separation and analysis instrumentation, surface characterization X-ray equipment, surface science experimentation, high-throughput synthesis and characterization pipeline, thin-film fabrication and characterization equipment, and prototype testing set-ups.

FUNDING

\$75M over five years, subject to congressional appropriation