

# Energy Sciences Symposium 2017

## *Tackling the Energy Challenge*



**April 10–11, 2017**  
800 West Campus Drive  
Conference Center Auditorium



### Monday, April 10

8:30 am – 9:45 am

#### **BREAKFAST**

9:45 am – 10:00 am

#### OPENING REMARKS

**Gary Brudvig**

*Director Yale Energy Sciences Institute*

10:00 am – 11:00 am

#### **Eli Yablonovitch**

*UC Berkeley*

A New Type of Heat Engine,  
Using LED's as Refrigerators

11:00 am – 12:00 pm

#### **Sarah Kurtz**

*National Renewable Energy Lab*

A New Era for Solar Energy - Possible Implications  
on Technology Development

12:00 pm – 12:30 pm

#### **Owen Miller**

*Yale Energy Sciences Institute, Applied Physics*

Upper Limits to Near-Field Radiative  
Heat Transfer: Generalizing the  
“BlackBody” Concept

12:30 pm – 1:30 pm

#### **LUNCH**

1:30 pm – 2:00 pm

#### **Hailiang Wang**

*Yale Energy Sciences Institute, Chemistry*

Electrocatalyst Materials Design  
Crossing Multiple Length Scales

2:00 pm – 3:00 pm

#### **Ju Li**

*MIT*

Electrocatalyst Materials Design  
Crossing Multiple Length Scales

3:00 pm – 3:30 pm

#### **COFFEE BREAK**

3:30 pm – 4:00 pm

#### **Judy Cha**

*Yale Energy Sciences Institute*

Mechanical Engineering and Materials Science  
Studying Electrocatalytic Properties  
Using Nanodevices

4:00 pm – 5:00 pm

#### **Daniel Nocera**

*Harvard*

Authentic Artificial Photosynthesis:  
Solar + Water + CO<sub>2</sub> to Liquid Fuels  
at High Efficiency

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#### **BREAKFAST**

9:30 am – 10:30 pm

**Peter Strasser**

*Technology University of Berlin*

Free Electrons to Molecular Bonds and Back -  
Materials & Catalysis at Electrified Interfaces  
Designed for Energy Storage and Conversion

10:30 am – 11:30 am

**Roel van de Krol**

*Helmholtz Center Berlin*

Materials Challenges in Solar Water Splitting

11:30 am – 12:00 pm

**Shu Hu**

*Yale Energy Sciences Institute,*

Chemical and Environmental Engineering

Photoelectrochemical and Photocatalytic Devices  
with Peroxide Chemistry

12:00 pm – 1:30 pm

#### **LUNCH**

1:30 pm – 2:30 pm

**Bruce Parkinson**

*University of Wyoming*

Photoelectrochemical Solar Energy Conversion:  
The Past, Present and Future

2:30 pm – 2:45 pm

#### **CLOSING REMARKS**

3:00 pm – 5:00 pm

#### **POSTER SESSION**

Refreshments will be served