

FACULTY



Panagiotis Christofides

*Distinguished Professor
and Department Chair*



Carissa Eisler

Assistant Professor



Elizabeth Ceja

*CBE Academic
Counselor*

Congrats CBE Admits, and Welcome All!

STUDENTS

Richa Ghosh

4th Year



Rishab Gupta

*External VP
1st Year*



Brandon Taing

*Treasurer
2nd Year*



Mitchell Rogers

*Alumni and Outreach
2nd Year*



Nathan Koketsu

*Publicity
1st Year*



Nolan Origer

*Family Head
2nd Year*



Corinna Lee

*President
2nd Year*



Mark Keller

*Internal VP
2nd Year*



Alan Huang

*Chem-E Car
Co-Lead
3rd Year*



Katie Dao

*Mentorship Chair
1st Year*



Kiko Galang

*Family Head
2nd Year*

ALUMNI



Van Schultz
[1974]

*Retired, SR. VP
Aera Energy LLC
UC Regent Emeritus*



Rajani Bansal
[2015]

*Environmental Engineer
Lawrence Livermore
National Laboratory*



Yue Du
[2010]

*IT Manufacturing
Systems Manager
Takeda Pharma.*



Emily Guidry
[2015]

*Process Engineer
Jacobs Engineering*



Tarang Lal
[2011]

*Senior Associate
PwC*



Michael Lee
[2017]

*Customer Support and
Training Consultant
Air Products & Chemicals*



Christopher Mazmanian
[2018]

*District Rep.
Nalco Water*

Schedule

10:00 AM **Faculty presentation**

10:30 AM **Current student Q+A**

11:00 AM **Alumni Q+A**

11:30 AM **Breakout sessions**

Participate by submitting your questions to the Q+A feature and by joining us in the breakout sessions (link on Discover UCLA website)

UCLA

Samueli

Chemical & Biomolecular Engineering

Chemical and Biomolecular Engineering

Panagiotis D. Christofides, Chair

Acronyms: CBE—Chemical & Biomolecular Engineering

ChE—Chemical Engineering

AIChE—American Institute of Chemical Engineers

ACS—American Chemical Society

What makes Chemical & Biomolecular Engineering Special?

- ❑ Chemical and biomolecular engineers play a key role in the production of virtually all tangible products
- ❑ The field is very broad
- ❑ Chemical and biomolecular engineers are paid well (80K (BS) - 135K (PhD))
- ❑ Undergraduate program goal: Develop high-quality professionals

CBE Salaries Historically at the Top

Starting Salary Offers—National Averages

Chemical Engineering	\$68,445
Computer Engineering	\$68,191
Bioeng/Biomed Engin	\$67,250
Electrical Engineering	\$66,920
Systems Engineering	\$66,224
Mechanical Engineering	\$65,557
Aerospace Engineering	\$64,967
Industrial Engineering	\$64,280

National Association of Colleges and Employers (NACE), 2017

<http://www.nacweb.org/job-market/compensation/top-paid-class-of-2017-engineering-bachelors-masters-grads/>

CBE Salaries Historically at the Top

Starting Salary— Projected National Averages for the 2019 Class

Chemical Engineering	\$72,889
Electrical Engineering	\$70,635
Mechanical Engineering	\$70,329
Software Engineering	\$69,117
Computer Engineering	\$68,778

National Association of Colleges and Employers (NACE), February 6, 2019

CBE is much more than designing, building large oil refineries and petrochemical plants

Advanced Materials/Devices

Polymers, Ceramics, Composites, Semiconductors, Microelectronics

Biotechnology

Protein Therapeutics, Biofuels, Enzymes, Tissues, Biomed Systems, Food

Specialty Chemicals

Surfactants, Cosmetics, Drugs, Pesticides, Herbicides, Explosives

Environmental Protection/Pollution Control

Green Process Design and Control, Waste Treatment, Water Production

Energy

Fossil Fuels, Biofuels, Batteries, Solar Cells, Nuclear Power

Computing and Systems Technology

Data handling, machine learning modeling, computation, plant optimization, process operation, control and safety

Some Top Employers of Chemical Engineers



UCLA CBE: Current Statistics

- Largest CBE Program in Southern California
- 18 Faculty (16 FTE), 5 jointly appointed faculty, 6 Emeriti, 7 Staff members, ~50 Postdocs/Engineers
- 330 Undergraduates, ~90 BS degrees/yr
- 120 Grad students (90% PhDs), ~15 PhD degrees/yr, ~8 MS degrees/yr
- Publications ~110/yr
- ~\$8 M in research expenditures per year
- 5 NAE/NAS members, 11 Fellows of major societies
- Almost all courses are taught by regular CBE faculty
- ABET accredited since 1983-present

UCLA CBE RANKINGS IN THE US

QS World University ChE Ranking, 2019

UCLA CBE: # 6 in the US

<http://www.topuniversities.com/university-rankings/university-subject-rankings/2020/engineering-chemical>

Shanghai Global ChE Ranking, 2016

UCLA CBE: # 7 in the US

<http://www.shanghairanking.com/Shanghairanking-Subject-Rankings/Chemical-Engineering-2016.html>

UCLA RANKINGS

[UCLA ranked No. 1 Public University in the U.S. News and World Report 'Best Colleges' Ranking](#)

[UCLA ranked No. 1 Public University in the U.S., by Times Higher Education World University Rankings](#)

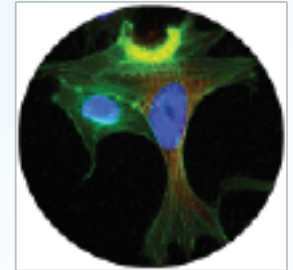
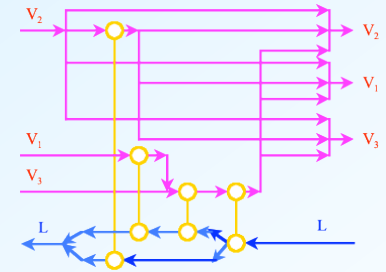
[UCLA ranked No. 2 Public university in U.S., No. 12 overall in the world according to the Academic Ranking of World Universities](#)

<http://www.chemeng.ucla.edu/>

Departmental Research Focus Areas and Broad Research Themes

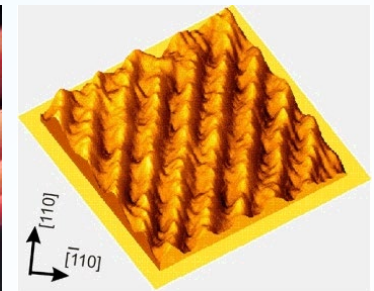
Focus Areas

- Biomolecular Engineering
- Process Systems and Control Engineering
- Nanotechnology and Semiconductor Manufacturing
- Reaction Engineering and Catalysis



Broad Research Themes

- Energy and the Environment
- Healthcare



CBE Faculty



Nasim Annabi



Emily Carter



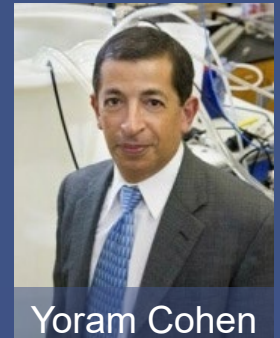
Jane Chang



Irene Chen



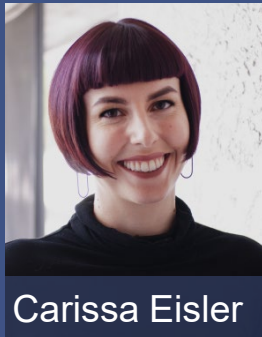
P. Christofides



Yoram Cohen



Jim Davis



Carissa Eisler



Yuzhang Li



Yunfeng Lu



V.
Manousiouthakis



H. Monbouquette



Carlos Morales



Junyoung Park



Philippe Sautet



D. Simonetti



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Yi Tang

UCLA

Joint Appointments



Yvonne Chen



Vijay Dhir, NAE



Kendall N. Houk, NAS



Ali Khademhosseini

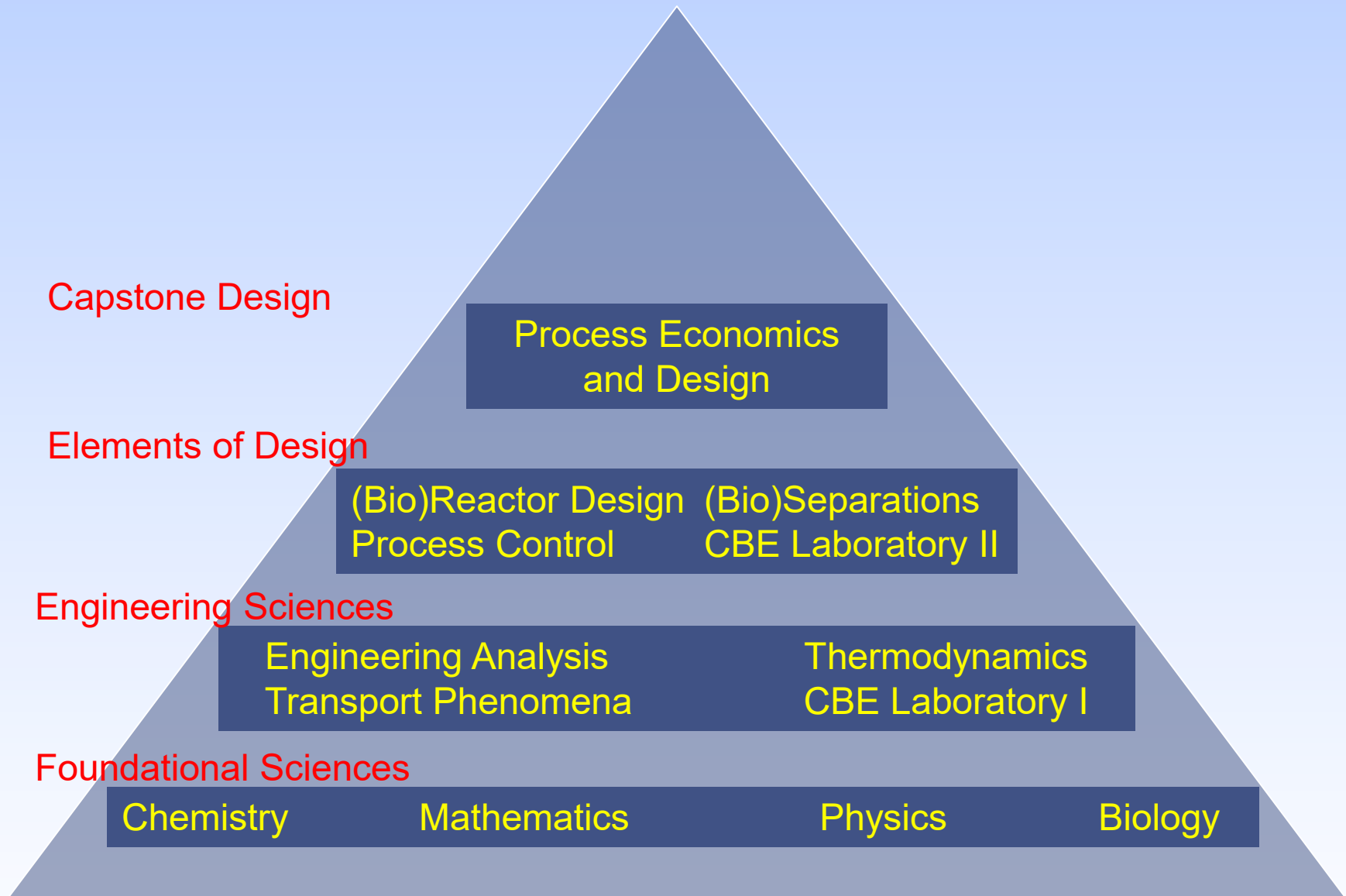


Stanley Osher, NAS

Staff Members

- Staff: Alain De Vera, Miguel Perez, Joann Jue, Lesly Navas, Bill Beard, Matthew Sanchez

CBE Pyramid of Knowledge



CBE Dept Curricula and Course Offerings

- Chemical Engineering Core Curriculum
- Environmental Engineering Option
- Biomolecular Engineering Option
- Biomedical Engineering Option
- Semiconductor Manufacturing Option

*All curricula are fully accredited – 180 credits each

*All curricula cover chemical engineering fundamentals

Environmental Engineering Option

- Core Chemical Engineering Curriculum
- Technical breadth three courses can be taken in environmental area
- Engineering elective courses in hydrogen, multimedia environmental assessment, pollution prevention, and fundamentals of aerosol technology
- Career opportunities in virtually all chemical process industries, environmental consulting firms, and government agencies

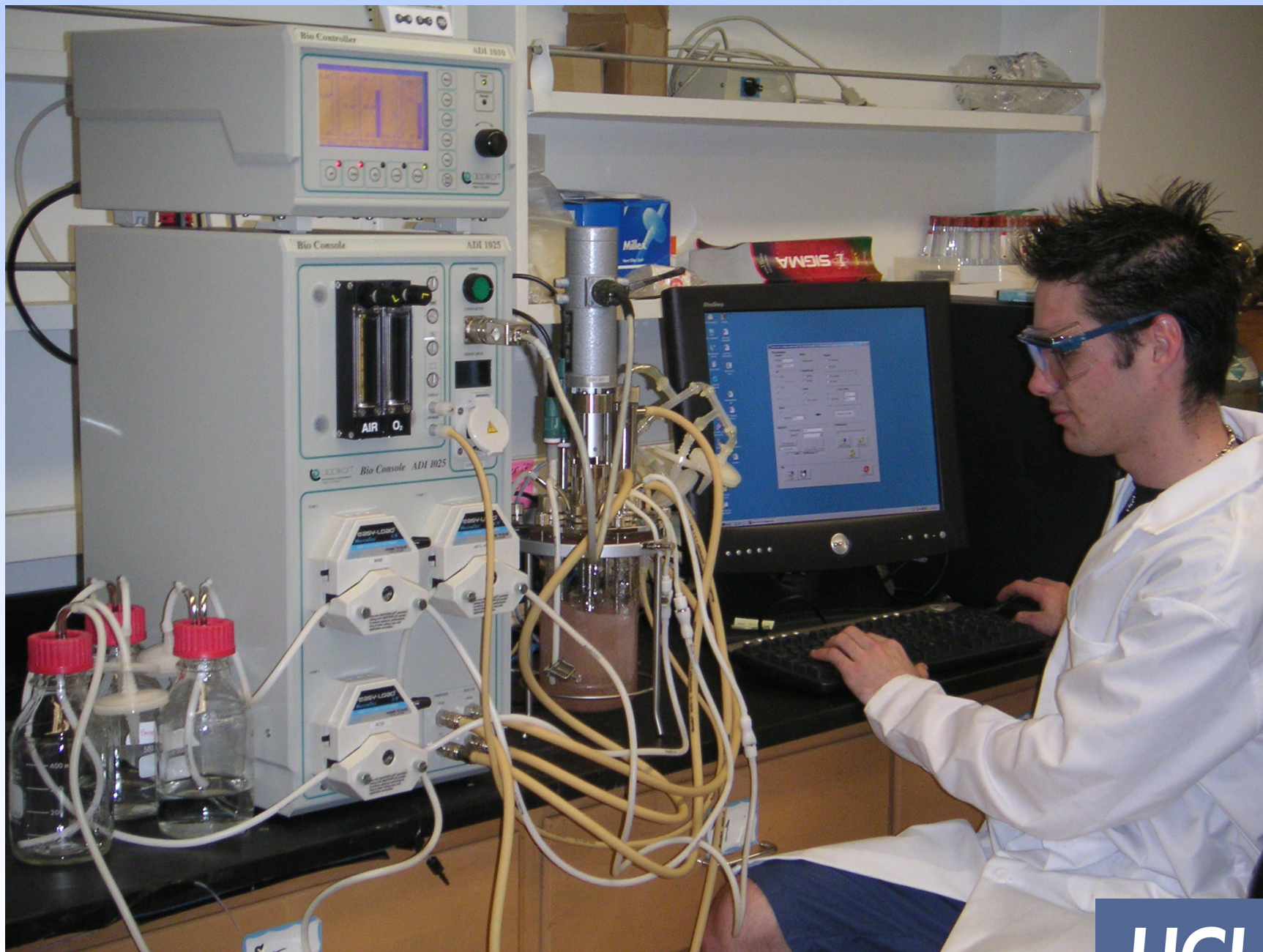
Water Technology: History of RO Development at UCLA

- 1960 - The first practical cellulose acetate reverse osmosis membrane patented by S. Loeb, S. Sourirajan and J. McCutchan
- Multi-stage 16" plate-and-frame reverse osmosis unit – capable of producing 500 gallons of product water per day
- Research continues today



Biomolecular & Biomedical Engineering Options

- Both options satisfy key requirements for medical school
- Biomolecular option includes special required coursework in bioreaction engineering, bioseparations, and bioprocessing (lab) that substitutes for core course requirements
- Bioprocess lab course covers all major steps in recombinant protein production, from creation of the recombinant microbe to culture in fermentors through protein purification and characterization
- Biomolecular option is designed to prepare students for careers in the biotech industry
- All chemical engineering fundamentals are covered in these accredited curricula



What's the difference between BE & CBE?

	Bioeng Dept	Chem/Biomol Eng Dept
Focus	Human body, Med Devices	Biomolecules & Cells, Bioprocess
Problems addressed	Healthcare	Healthcare, Energy, Environ
Degree Objective	Preparative	Professional
Employment	Biomedical devices	Biotech, Pharm, Chem, Biofuels

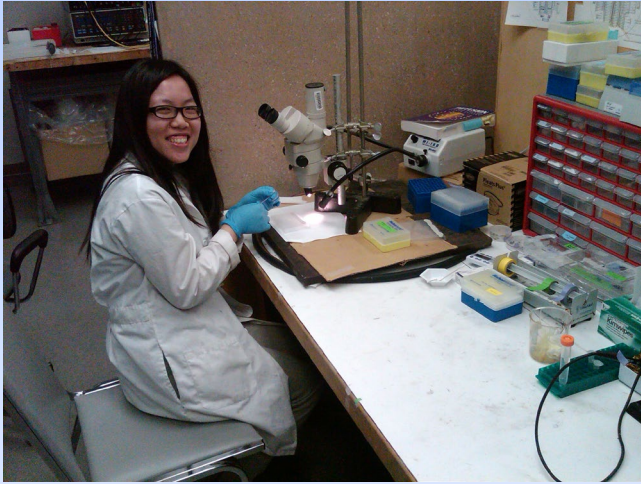
Semiconductor Manufacturing Option

- Semiconductor option includes special required coursework in materials science as well as a special semiconductor processing lab that substitutes for core requirements
- Semiconductor lab course covers all major steps in microelectronic chip production and students produce a functional chip
- All chemical engineering fundamentals are covered in this accredited curriculum

UCLA Nanoelectronics Research Facility



Undergraduate Research



Judy Yao



Huma Rasool

ARTICLE IN PRESS

Metabolic Engineering ■ (■■■■) ■■■–■■■



Contents lists available at ScienceDirect

Metabolic Engineering

journal homepage: www.elsevier.com/locate/ymben



Reconstruction of the archaeal isoprenoid ether lipid biosynthesis pathway in *Escherichia coli* through diglyceranylglycerol phosphate

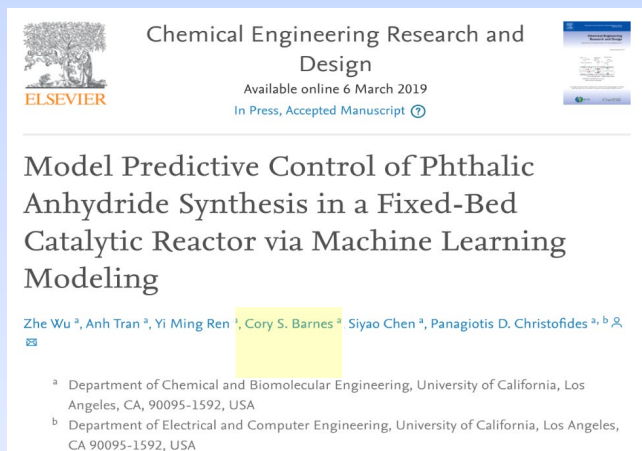
Denton Lai^a, Ben Lluncor^a, Imke Schröder^b, Robert P. Gunsalus^b,
James C. Liao^a, Harold G. Monbouquette^{a,*}

^a Chemical and Biomolecular Engineering Department, University of California, Box 951592, Los Angeles, CA 90095-1592, USA

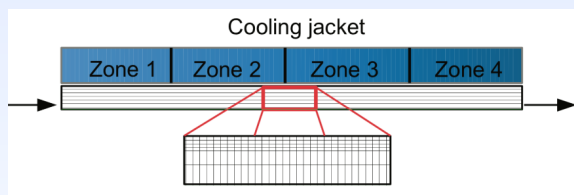
^b Microbiology, Immunology, and Molecular Genetics Department, University of California, Los Angeles, CA 90095, USA

UCLA

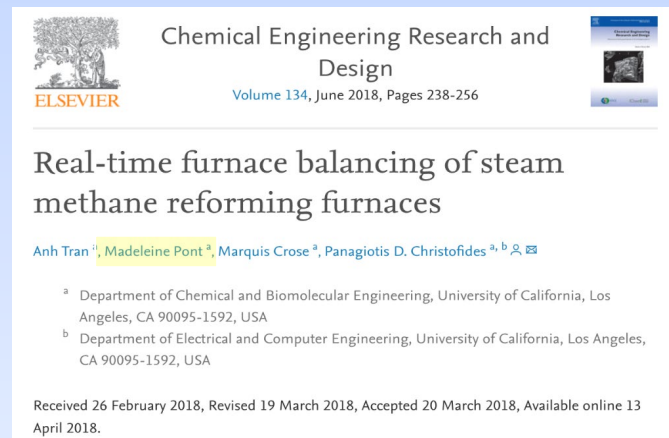
Undergraduate Research



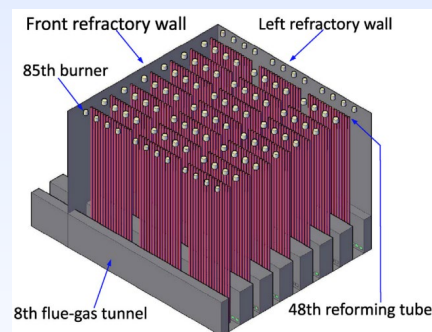
Cory S. Barnes



Two-dimensional axisymmetric reactor geometry of a fixed-bed catalytic reactor.



Madeleine Pont



Isometric view of the reformer in which the yellow frustum cones represent burners.

Building a Brighter Future: Chemical and Photonic Design Principles for High Efficiency Optoelectronics

Carissa N. Eisler, Assistant Professor

Chemical and Biomolecular Engineering, UCLA

Discover UCLA Engineering Day

Chose UCLA Chemical Engineering to address the most **critical challenges** and have the largest **positive impact**



Engineer Change.

Chose UCLA Chemical Engineering to address the most **critical challenges** and have the largest **positive impact**



Semiconductor Manufacturing Option (104C – Semiconductor Processing Laboratory)

Engineer Change.

UCLA

Samueli

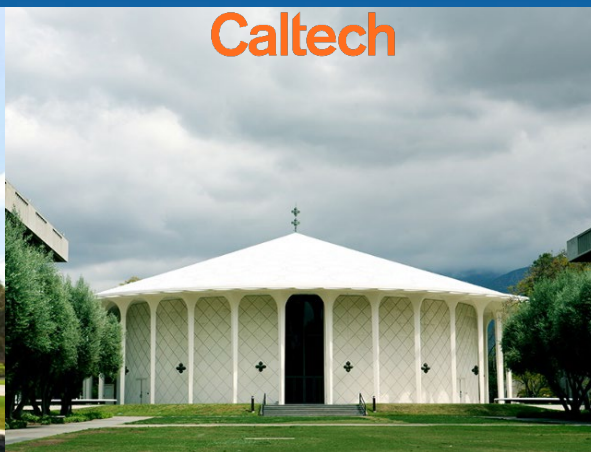
Chemical & Biomolecular Engineering

I experienced many unique and interdisciplinary opportunities because of my **training and mentorship at UCLA CBE**



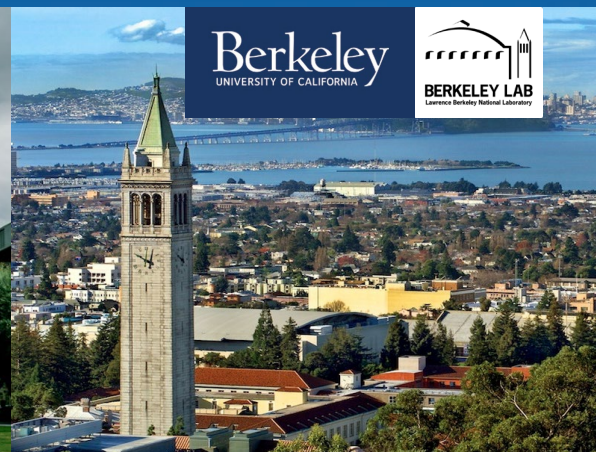
UCLA

B.S. Chemical Engineering
Academic Advisor: Jane Chang



Caltech

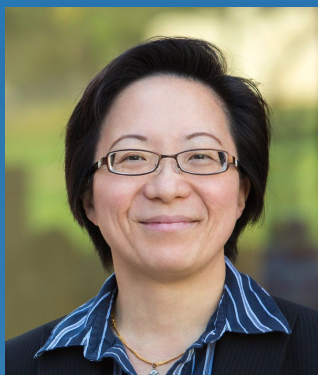
Ph.D. Chemical Engineering
Advisor: Harry Atwater
[Applied Physics and Materials Science]



Berkeley
UNIVERSITY OF CALIFORNIA



Postdoctoral Scholarship
Advisor: Paul Alivisatos
[Chemistry]



UCLA Faculty Advising for Undergraduates

Professor Jane P. Chang

UCLA

Samueli

Chemical & Biomolecular Engineering

***Power from Sun
Incident on Earth
 1.6×10^5 TW***

***Consumption: 21 TW
Solar Capacity : 7%***



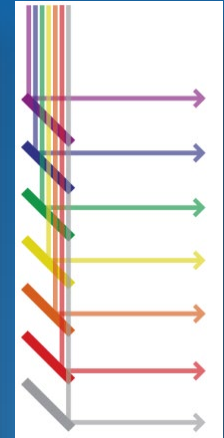
Solar power vastly exceeds total reserve power from all other known energy resources, but installed capacity low because panels not efficient (>50%) enough

Graduate work: new photonic architectures could lead to **50% solar module efficiencies!**

Polyhedral specular reflector (PSR) module has modeled efficiency of 42.3%!

WHAT IS THE ROADMAP TO ULTRAHIGH (>50%) EFFICIENCY?

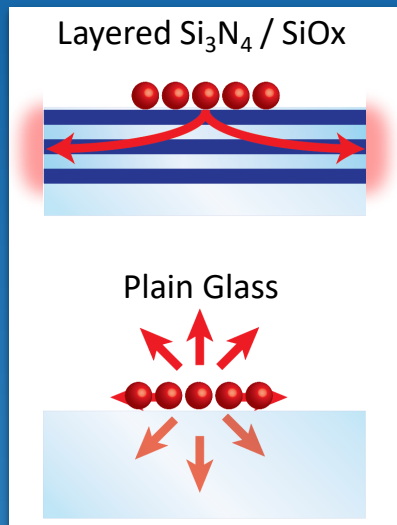
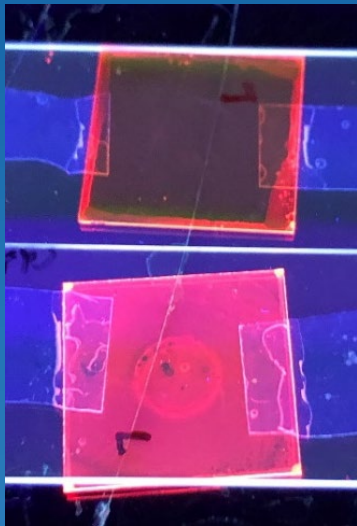
1. Chemical treatments to reduce defects
2. Improve light management (color division, concentration)



My graduate work taught me the importance of light management for better solar cells, but is there a way to achieve high efficiency optics with less expensive and bulky structures?

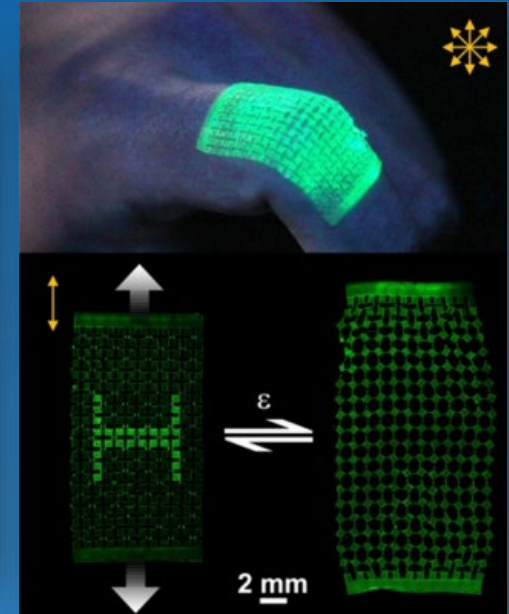
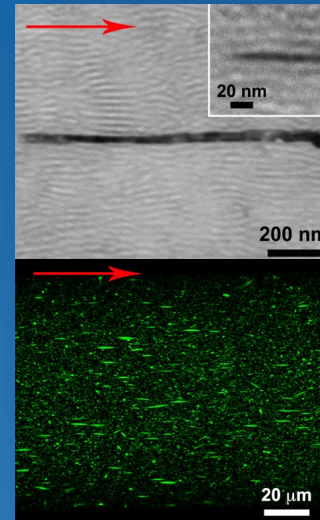
Eisler Group Research: high efficiency, novel optoelectronic devices not possible with conventional optics

Quantum Dot Concentrator for Higher Efficiency, Cheaper Solar Cells



More light squeezed into edges for layered structure makes a better concentrator

Nanocrystals for Brighter LED's and Encryption



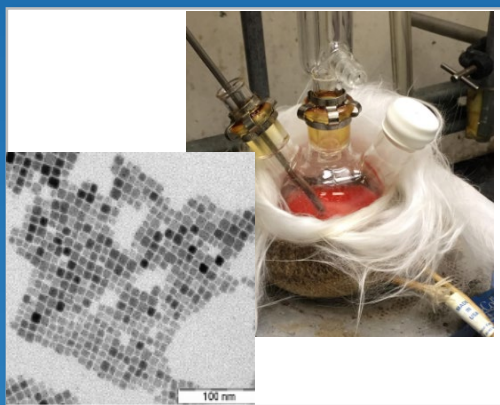
Nanocrystal shape and alignment dictates how light emits, making an encoded message when stretched

Precise control of photon directionality and energy transfer in nanocrystals will enable more efficient solar energy, lighting, sensors, and photonic circuits!

Broader vision: chemical engineers will be the ones to revolutionize the optoelectronics field

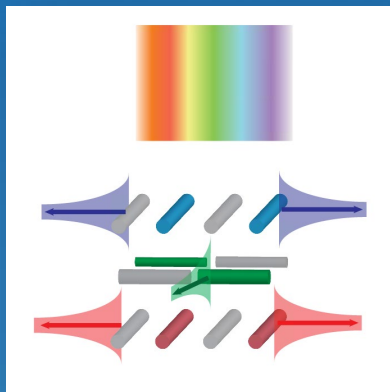
A generation ago, microelectronics were revolutionized by chemical engineers. Now I believe that our experience in chemical reaction kinetics, thermodynamics, and transport phenomena will drive new and more efficient photonic devices.

REACTION KINETICS



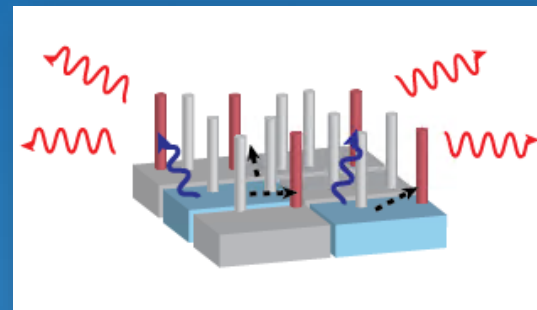
How to synthesize optically interesting nanocrystals

THERMODYNAMICS



What are the efficiency limits of novel optoelectronic devices

TRANSPORT PHENOMENA



How light, energy, and electrons travel through nearby nanostructures

The future of optoelectronics will require chemical engineering principles to combine chemical synthesis of nanomaterials and photonic transport.



Tung-Tung Lin



Roma Modi



Collaborators:

Caltech:

Harry A. Atwater
Sunita Darbe
Pilar Espinet
Matt Escarra
Cristofer Flowers
Emily Kosten
John Lloyd
Matt Sheldon
Emily Warmann

UCB/LBNL:

A. Paul Alivisatos
Adam Schwartzberg
Zachary Nett
Y. Bekenstein
Ze'ev A. Abrams
Xiang Zhang

Harvard:

Jennifer A. Lewis
Nanjia Zhou

CBE Faculty and Staff



**Panagiotis
Christofides**

*Distinguished Professor and
Department Chair*



Carissa Eisler

Assistant Professor



Elizabeth Ceja

*CBE Academic
Counselor*

CBE Alumni



Van Schultz [1974]

*Retired, SR. VP
Aera Energy LLC
UC Regent Emeritus*



Rajani Bansal [2015]

*Environmental Engineer
Lawrence Livermore National
Laboratory*



Yue Du [2010]

*IT Manufacturing
Systems Manager (Engineering Early
Talent Hiring Lead)
Takeda Pharmaceuticals*



Emily Guidry [2015]

*Process Engineer
Jacobs Engineering*



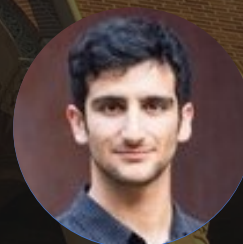
Tarang Lal [2011]

*Senior Associate
PricewaterhouseCoopers LLP*



Michael Lee [2017]

*Customer Support and
Training Consultant
Air Products & Chemicals*



**Christopher
Mazmanian [2018]**

*District Representative
Nalco Water*

Undergraduate Counseling

Ms. Ashley Benson
Student Affairs Office
Office of the Associate Dean

Chemical Engineering Alumni

American Institute of Chemical Engineers (AIChE) Student Chapter

AICHE®

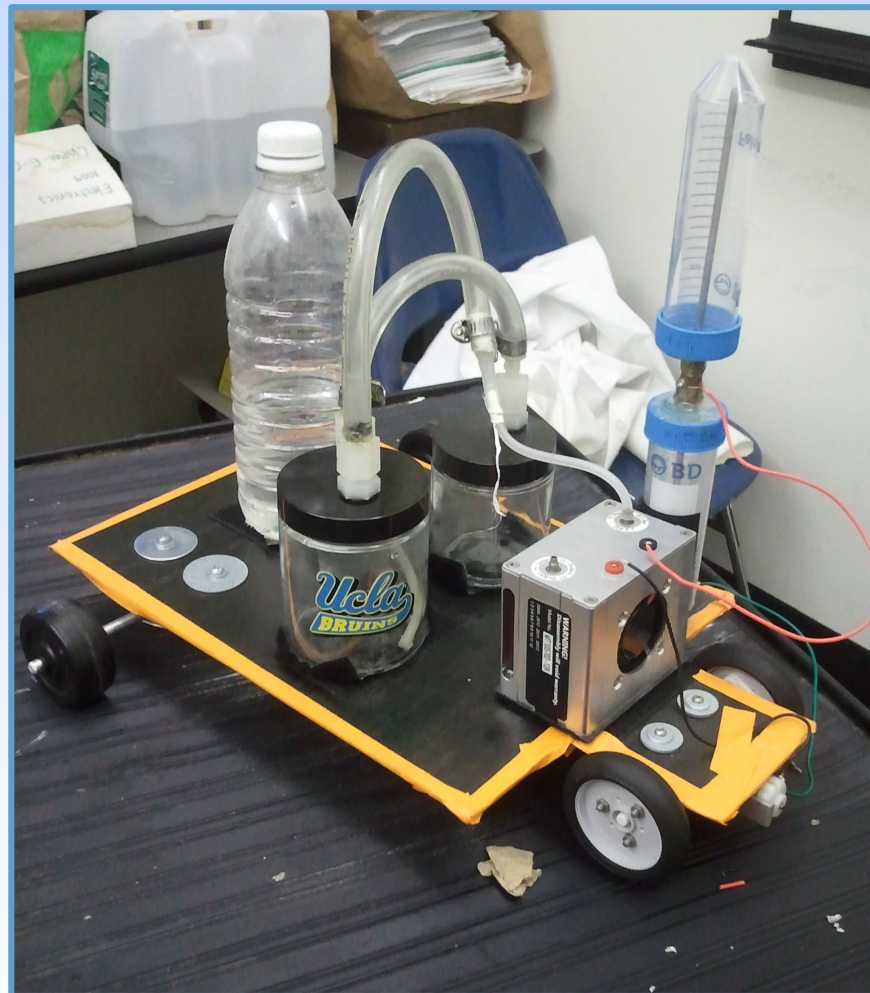
AMERICAN INSTITUTE OF CHEMICAL ENGINEERS AT UCLA

The club for successful and social chemical engineers at UCLA



As a member of UCLA AIChE you can...

➡ Work on the ChemE Car and go to an AIChE conference!



AIChE

The **A**merican **I**nstitute of **C**hemical **E**ngineers

AIChE is the worlds leading organization
for chemical engineering professionals,
with more than 50,000 members from 93 countries.

CBE Faculty



Nasim Annabi



Emily Carter



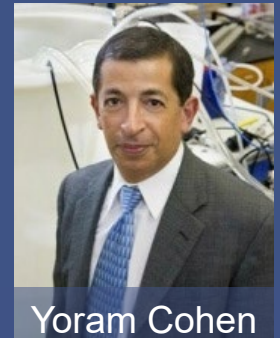
Jane Chang



Irene Chen



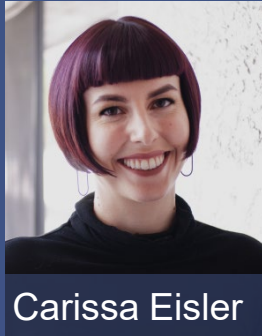
P. Christofides



Yoram Cohen



Jim Davis



Carissa Eisler



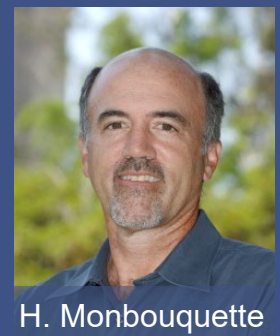
Yuzhang Li



Yunfeng Lu



V.
Manousiouthakis



H. Monbouquette



Carlos Morales



Junyoung Park



Philippe Sautet



D. Simonetti



S. Srivastava



Yi Tang

UCLA

HENRY SAMUELI SCHOOL OF ENGINEERING AND APPLIED SCIENCE

Joint Appointments



Yvonne Chen



Vijay Dhir, NAE



Kendall N. Houk, NAS



Ali Khademhosseini



Stanley Osher, NAS

Nasim Annabi, Assistant Professor



Bioadhesives/sealants for wound closure and surgical applications

Elastin-based biomaterials for soft tissue engineering

Conductive biomaterials for cardiac tissue engineering

3D Bioprinting

BS, Science and Research University, Iran, 2002

MS, Science and Research University, Iran, 2004

PhD, University of Sydney, Australia, 2010

Postdoc, Harvard Medical School, 2014

Scientist Development Award, American Heart Association (AHA), 2016

National Institute of Health/NIBIB (R01), 2017

National Institute of Health/NHLBI (R01), 2018

NIH-Center for Dental, Oral & Craniofacial Tissue & Organ Regeneration, 2018

Department of Defense (DoD), Vision Research Program

Technology/Therapeutic Development Award, 2017

Emily A. Carter, Executive Vice Chancellor and Provost



Alternative Energy

Solar cells/Photovoltaics

Light weight alloys for fuel-efficient vehicles and fusion reactor walls

Quantum mechanics simulation tools

B.S. 1982, University of California, Berkeley

Ph.D. 1987, California Institute of Technology

Graduate Mentoring Award, McGraw Center for Teaching and Learning, Princeton University, 2019

Distinguished Alumni Award, California Institute of Technology, 2019

CME Leadership Award for Interdisciplinary Innovation, New York Section of the American Chemical Society, 2018

ACS Award in Theoretical Chemistry, American Chemical Society, 2018

Docteur Honoris Causa from L'Ecole Polytechnique Federale de Lausanne, Switzerland (EPFL), 2012

Member NAE, NAS, AAAS

UCLA



Jane P. Chang, Professor

Multifunctional Oxide Materials and Systems
Plasma Chemistries and Surface Kinetics
Atomic Layer Deposition
Microelectrochemical Systems
Computational Surface Chemistry

William F. Seyer Chair in Materials Electrochemistry

B.S. 1993, National Taiwan University

M.S. 1995, Massachusetts Institute of Technology

Ph.D. 1998, Massachusetts Institute of Technology

AVS Plasma Prize, 2018

AVS Fellow, 2013

Peter Mark Award, AVS, 2005

Professor of the Year Award, AIChE Chapter, UCLA, 2003, 2004, 2009

O. Hugo Schuck Best Paper Award. American Automatic Control Council, 2004

Young Investigator Award, Office of Naval Research, 2002

TRW Excellence in Teaching Award, 2002

Chancellor's Career Development Award, 2000, 2002

NSF CAREER Award, 2000

Coburn and Winters Award, AVS, 1996

Irene Chen, Associate Professor



Biomolecular design and evolution:
Minimal synthetic cells
Biomolecular fitness landscapes
Bacteriophage-based nanotechnology

2012, Bauer Fellow, FAS Center of Systems Biology, Harvard University

Ph.D. 2007, in Biophysics, Harvard University

M.D. 2007, Health Sciences and Technology, Harvard Medical School and the Massachusetts Institute of Technology

B.A. in Chemistry 1999, Harvard University

Camille Dreyfus Teacher-Scholar Award, 2018

Regents Junior Faculty Fellowship, 2017

NIH Director's New Innovator Award, 2016

Yvonne Y. Chen, Associate Professor



Synthetic Biology

Cell-Based Immunotherapy

Mammalian Cell Engineering

Synthetic Signaling Pathway Engineering

B.S. 2004, Stanford University

M.S. 2007, California Institute of Technology

Ph.D. 2011, California Institute of Technology

NSF CAREER Award, 2016

NIH Director's Early Independence Award, 2012

Junior Fellow, Harvard Society of Fellows, 2011-2013

Lemelson-MIT Caltech Student Prize Finalist, March 2010

P.E.O. Scholar Award, 2008

Constantin G. Economou Memorial Prize, 2007

Panagiotis D. Christofides, Professor & Chair



Process Control, Dynamics and Optimization

Control Theory and Applied Mathematics

Control of Materials, Energy and Water Systems

Smart Manufacturing

Ph.D. 1996, University of Minnesota
M.S. 1996, Mathematics
M.S. 1995, Electrical Engineering
Dipl. Eng. 1992 University of Patras
Distinguished Professor, UCLA, 2019
Computing in Chemical Engineering, AIChE-CAST, 2018
William D. Van Vorst Chair, 2017
Most-cited Researcher in Chemical Engineering, Shanghai Global Ranking, June 2016
AAAS Fellow; IFAC Fellow; IEEE Fellow; AIChE Fellow
Outstanding Young Researcher Award, AIChE-CAST, 2008
Donald P. Eckman Award, AACC, 2004
ONR Young Investigator Award, 2001
O. Hugo Schuck Award, AACC, 2000 & 2004
NSF CAREER Award, 1998



UCLA

Yoram Cohen, Distinguished Professor



Separation Processes

Water Technology (Desalination and Treatment)

Polymer Surface Nano-Structuring

RO/NF Membrane Development

Environmental Implications of Nanotechnology

Machine learning for process and environmental impact analysis

Director , Water Technology Research Center
Program leader/Co-PI, NSF/UCLA Center
for Environmental Implications of Nanotechnology
Adjunct Faculty, Ben-Gurion University
Ph.D. 1981 Univ. of Delaware
M.A. Sc. 1977; B.A. Sc. 1975, Univ. of Toronto
Gerhold Award, Separations Div., AIChE, 2019
AIChE Fellow
UCLA Luskin Scholar
Rosenfield Community Partnership Award, 2008
AIChE, 2003 Env. Division Cecil Award
Chair, AIChE Separations Division, 2008
Chair, AIChE Env. Division, 2002
AIChE, 1997, 2009, Sep. Division Best Paper
Lady Davis Fellowship, 1987, 1994



Compact Integrated
MF/UF/RO seawater
desalination system

James F. Davis, Professor & Vice Provost



Smart Process Manufacturing

Intelligent Systems

Decision Support Systems

Fault Tolerant Control & Resilient Operations

Data Interpretation

Vice Provost – Information Technology Technology & CTO

Ph.D. 1981, Northwestern University

M.S. 1978, Northwestern University

B.S. 1974, University of Illinois, Champaign

Director U.S. Smart Manufacturing Institute

Fellow AIChE

Chair AIChE Executive Board & National Programming Committee

Board Manufacturing Executive Council

University of California IT Leadership Council

National Council Advanced Scientific Computing

Board, Abnormal Situation Management Consortium

UCLA Institute for Digital Research and Education



Carissa N. Eisler, Assistant Professor



Light-material interactions in
nanoscale systems

Nanocrystal synthesis and
optical characterization

BS, University of California, Los Angeles, 2010

PhD, California Institute of Technology, 2016

Postdoc, University of California, Berkeley / LBNL, 2018

Energy Efficiency and Renewable Energy (EERE) Postdoctoral
Fellowship, 2016

Everhart Distinguished Graduate Student Lecturer, Caltech, 2015

National Defense Science and Engineering Graduate (NDSEG)
Fellowship, 2011

Outstanding BS in Chemical Engineering Award, UCLA, 2010

Yuzhang Li, Assistant Professor



- Renewable energy generation and storage
- Nanomaterials design and synthesis
- Cryogenic-electron microscopy
- In situ transmission electron microscopy

Ph.D. Materials Science and Engineering 2018, Stanford University, B.S. Chemical Engineering 2013, University of California, Berkeley,

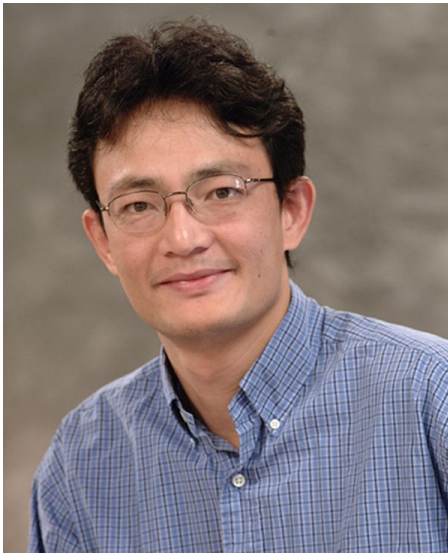
Electrochemical Society Daniel Cubicciotti Award, 2018

Intelligence Community Postdoctoral Research Fellowship, 2018-2020

Materials Research Society Graduate Student Award, 2017

National Science Foundation Graduate Research Fellowship, 2013-2016

Yunfeng Lu, Professor



- Bio-Synthetic Materials
- Energy Storage and Conversion
- Self-Assembly, Colloid and Surface

1998, University of New Mexico, Ph.D.

1991, Jilin University, B.S.

2005 PECASE Award

2005 ACS Unilever Award

2005 DOE Early Career Scientist and Engineer Award

2004 NSF CAREER Award

2003 ONR Young Investigator Award

2000 ACS V. K. LaMer Award

1998 DOE Materials Science Award

Vasilios Manousiouthakis, Distinguished Professor



Process Systems Engineering

(Simulation, Design, Optimization, Control)

Hydrogen Economy, Green Manufacturing Pollution Prevention, Global Optimization

Director of Hydrogen Engineering Research Consortium (HERC)

Ph.D. 1986, Rensselaer Polytechnic Institute

M.S. 1985, Rensselaer Polytechnic Institute

Diploma 1982, National Technical University of Athens

AIChE Research Excellence In Sustainable Engineering Award 2014

Lawrence K. Cecil Award, AIChE Environmental Division, 2010

Ted Peterson Student Paper Award (Co-author), AIChE, 1998 & 2001

Northrop Award for Outstanding Research, 1989

NSF Presidential Young Investigator Award, 1988

Harold G. Monbouquette, Professor & Assoc. Dean



Electrocoupling of Enzymes to Electrodes for Biosensor Applications

Design of Biologically Derived Capsules for Separations, Reaction Compartmentalization, and Drug Delivery

Biotechnological Applications of Extremely Thermophilic Microbes

User-defined Nanopatterning

Ph.D. 1987, North Carolina State University

M.S. 1984, University of California, Davis

B.S. 1982, University of Massachusetts, Amherst

B.A. 1979, Biochemistry, Harvard College

Fellow, American Institute for Medical and Biological Engineering, 2007

TRW Excellence in Teaching Award, 1990-1991

Dept. of Energy Young Faculty Award, 1990



Carlos Morales-Guio, Assistant Professor



Electrochemistry

Design of materials and devices for renewable energy storage

Mass transport coupled to electrochemical transformations

B. Eng., Osaka University, 2011

Ph.D., École Polytechnique Fédérale de Lausanne, 2016

Postdoc, Stanford University, 2018

Swiss National Science Foundation Postdoctoral Fellowship, 2016-2018

Asea Brown Boveri (ABB) Award, 2017

Excellence Fellowship from École Polytechnique Fédérale de Lausanne, 2011

Japanese Government (Monbukagakusho: MEXT) Scholarship, 2006

Jun Park, Assistant Professor



Cancer Metabolism

Metabolic Engineering

Bioenergy

B.A. & B.S., UC San Diego, 2010

M.S., Princeton, 2012

Ph.D., Princeton, 2016

Postdoc, MIT, 2018

Schowalter Travel Fund – 2012-2015

USC Provost's Fellowship (declined) – 2010

Calit2 Research Scholarship – 2008-2009

Philippe Sautet, Professor & Vice Chair



Computational Catalysis

Theoretical Chemistry

Doctorate in Physical Chemistry, January 1989, Paris-Orsay University
“Diplome d’Ingénieur de l’École Polytechnique de Paris”, June 1985

Pierre Süe Grand Prize of the French Chemical Society 2012

Member of the French Academy of Sciences, 2010

Silver medal of the CNRS 2007

Descartes-Huygens prize 1998, awarded by the Royal Netherlands
Academy of Arts and Sciences

Award of the Catalysis Division of the French Chemical Society 1993

Dante Simonetti, Assistant Professor

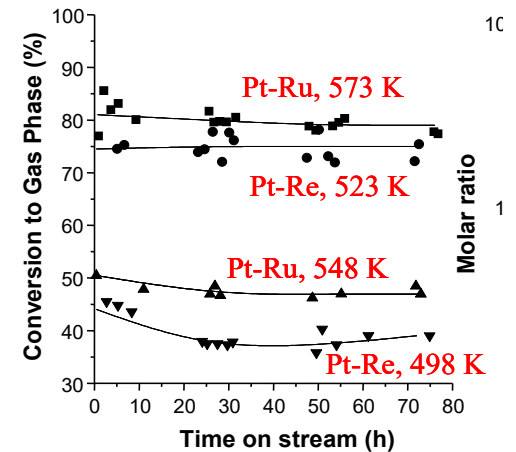


Catalytic conversion of
alternative energy and chemical
feedstocks

Heterogeneous catalysis and
kinetics,

Catalyst design

Surface chemistry and
characterization

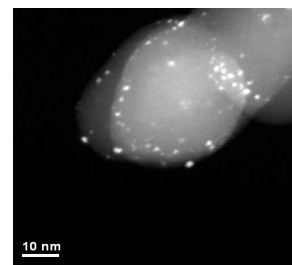
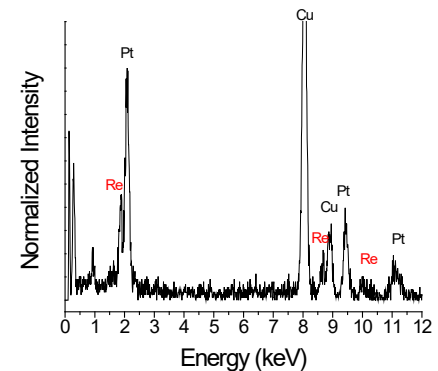


BS, Notre Dame University, 2003

PhD, Wisconsin-Madison, 2008

Postdoc, UC Berkeley

UOP



UCLA

Sam Srivastava, Assistant Professor



Charge-driven self-assembly

Structure and dynamics of soft materials at the nanoscale

Polymer and nanomaterial synthesis and characterization

BS, IIT Kanpur, 2009

PhD, Cornell University, 2014

Postdoc, University of Chicago, 2017

RSC Researcher Mobility Grant, 2017

Austin Hooey Graduate Research Excellence Recognition Award, Cornell University, Chemical Engineering, 2013

Best Poster Award, Fluid Mechanics, AIChE Annual Meeting, 2013

Yi Tang, Chancellor's Professor



Metabolic Engineering
Natural Product Biosynthesis
Biocatalysis
Microbial Genomics
Protein Polymers

NIH Postdoctoral Fellow, 2002-2004, Stanford University
Ph.D. 2002, California Institute of Technology
B.S. 1997, Pennsylvania State University
Eli Lilly Award, ACS Division of Biological Chemistry (2014)
NIH Pioneer Award (2012)
Presidential Green Chemistry Award (2012)
Arthur C. Cope Scholar Award, American Chemical Society (2012)
Young Investigator Award, American Chemical Society BIOT Division (2011)
Young Investigator Award, Society for Industrial Microbiology (2010)
AIChE Alan P. Colburn Award (2009)
Alfred P. Sloan Research Fellowship (2009)
Dept of Defense Breast Cancer Research Program Concept Award (2008)
Camille Dreyfus Teacher Scholar Award (2008)
David and Lucile Packard Fellowship in Science and Engineering (2007)
Presidential Early Career Award in Science and Engineering (PECASE) Award (2006)
National Science Foundation CAREER (2006)





It's All Here

UCLA





Richa Ghosh
4th Year Student



Corinna Lee
*President
2nd Year*

Rishab Gupta

External VP - 1st Year



Brandan Taing

Treasurer - 2nd Year



Mitchell Rogers

Alumni and Outreach - 2nd Year



Nathan Koketsu

Publicity - 1st Year



Nolan Origer

Family Head - 2nd Year



Mark Keller
Internal VP - 2nd Year



Alan Huang
Chem-E Car Co-Lead - 3rd Year



Katie Dao
Mentorship Chair - 1st Year



Kiko Galang
Family Head - 2nd Year