

**Proposal to host the 17th International Congress in Catalysis
by the North American Catalysis Society**



**San Diego, California
June 14-19, 2020**

**Proposal to host the 17th International Congress in Catalysis
by the North American Catalysis Society**



The North American Catalysis Society:

- a non-profit tax-exempt entity with an educational mission and roots in the Catalysis Club of Philadelphia (1949)
 - promote and encourage the growth and development of the science and applications of catalysis*
 - enhance the depth and breadth of our discipline*
 - nurture young practitioners and ancillary fields of study*

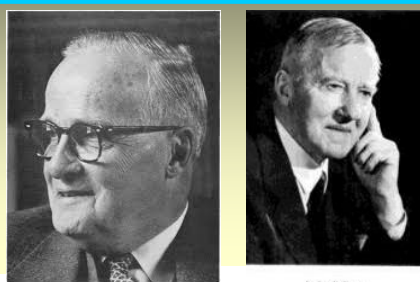
Proposal to host the 17th International Congress in Catalysis by the North American Catalysis Society



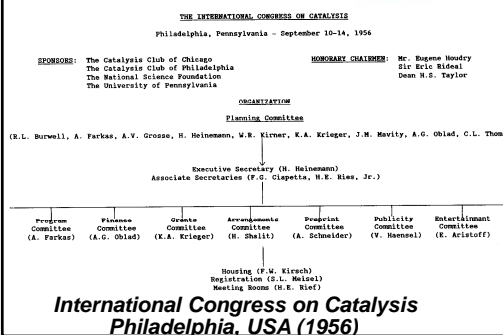
The North American Catalysis Society:

- a non-profit tax-exempt entity with an educational mission and roots in the Catalysis Club of Philadelphia (1949)
- 14 local affiliates in Canada, Mexico, and the United States
- local chapters (with logistical and financial support from the Society) organize biennial meetings (950-1300 attendees)

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International Congress on Catalysis Philadelphia, USA (1956)



Chronology and locations of previous ICC Meetings



Grand Manchester Hyatt
San Diego, California



ICC 01 (1956) Philadelphia

ICC 02 (1960) Paris

ICC 03 (1964) Amsterdam

ICC 04 (1968) Moscow

ICC 05 (1972) Palm Beach

ICC 06 (1976) London

ICC 07 (1980) Tokyo

ICC 08 (1984) Berlin

ICC 09 (1988) Calgary

ICC 10 (1992) Budapest

ICC 11 (1996) Baltimore

ICC 12 (2000) Granada

ICC 13 (2004) Paris

ICC 14 (2008) Seoul

ICC 15 (2012) Munich

ICC 16 (2016) Beijing

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Hotel and Conference Venue



**Grand Manchester Hyatt
San Diego, California**




**1630 rooms and suites
(all with bay or city views)**




290 USD/night





Bid Planning and Organization



Chair and Coordinator

Enrique Iglesia	University of California, Berkeley
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Program and Agenda

Jingguang Chen	Columbia University (co-chair)
Chris Jones	Georgia Institute of Technology (co-chair)
Chuck Peden	Department of Energy, Pacific Northwest National Laboratory
Umit Ozkan	Ohio State University
Suljo Linic	University of Michigan, Ann Arbor
Antonio de los Reyes	Universidad Autónoma Metropolitana, Mexico City
Josephine Hill	University of Calgary

Web site, publicity, bid brochure, videography

Beata Kilos	The Dow Chemical Company (chair)
Mike Reynolds	Royal Dutch Shell plc
Aditya Bhan	University of Minnesota
Stuart Soled	ExxonMobil Corporation

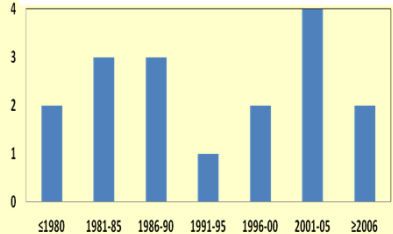
Fundraising

Thomas Degnan	University of Notre Dame (chair)
Enrique Iglesia	University of California, Berkeley
Fabio Ribeiro	Purdue University

Finances, budget

Cathy Chin	University of Toronto (chair)
Eranda Nikolla	Wayne State University
C.Y. Chen	Chevron Corporation

Committee Members by year of Ph.D. degree



Year Range	Number of Members
≤1980	2
1981-85	3
1986-90	3
1991-95	1
1996-00	2
2001-05	4
≥2006	2



**17th International Congress in Catalysis
Technical Program**




20/20 Vision ... and implications for clarity (in hindsight)

.... reflections on the past, present, and future of catalysis


- **did we get it right the last time?**
- **how do we see it this time?**

.... even four-years from now (by 2020) – will adapt



Topical sessions ... as we see them now



<u>Materials & Molecules</u>	<u>Mechanisms & Pathways</u>	<u>Reactors & Processes</u>
	C1 Chemistry	
	Functionalization and Conversion of C2-C5 Paraffins	
	H ₂ Generation and Use	
	Syngas Conversion	
	Electrocatalysis	
	Photocatalysis	
	Environmental Catalysis (Gas Phase, Liquid Phase)	
	Heteroatom removal	
	Carbon-Heteroatom Bond Formation (C-C, C-N, C-S, C-O, etc.)	
	Conversion of Biomass and Biomass-derived Molecules	
	In-situ and Operando Analysis (Spectroscopy, Microscopy, Tomography, etc.)	
	Catalysis with Ordered Porous Materials (MOFs, Zeolites, etc.)	
	Catalysis for Chemical Synthesis (Commodity, Specialty)	
	Theory & Computation in Catalysis	



17th International Congress in Catalysis Technical Program



20/20 Vision ... and implications for clarity (in hindsight)

5 Plenaries/2 Award Lectures (60 min.)

25 Keynote Lectures (40 min.)

25 Invited Talks (20 min.)

450 Contributed Talks (20 min.)

800-1000 Posters

(highly ranked posters will be assigned five-minute summaries in last 20-minute slot immediately before poster sessions)



**Grand Manchester Hyatt
San Diego, California**





Hotel and Conference Facilities



Plenaries
Seaport Ballroom / 2530

Oral Sessions (7)
 Harbor DEF / 400
 Harbor GHI / 500 :
 Harbor ABC / 500
 Coronado AB / 282
 Coronado DE / 282
 Seaport Ballroom FGH / 500
 Seaport Ballroom DE 525

Banquet
 Seaport Ballroom / 2220
 (or Harbor Ballroom / 1950)






NACS
North American Catalysis Society

Hotel and Conference Facilities



17th ICC
2020 Vision




Seven parallel sessions
in two adjacent floors

Ground Floor • MANCHESTER GRAND HYATT





NACS
North American Catalysis Society

Satellite Conferences



17th ICC
2020 Vision

***2020 Gordon Research Conference on Catalysis
(New London, NH)***

2020 Canadian Symposium on Catalysis (Vancouver)

***Mexican Catalysis Club Conferences (Baja California,
Puerto Vallarta)***

***Pacific Coast Catalysis Club Annual Symposium
(Seattle or San Francisco)***



Financial Projections and Risk Analysis






San Diego, California
June 14-19, 2020

Basis for cost estimates


Binding contracts with hotel and Balboa Park museums

2000 registrants all with access to all sponsored activities (40 complimentary)

Contingency (18,000 USD + 3% on ancillary costs)



Financial Projections and Risk Analysis
(Cathy Chin, Eranda Nikolla, C.Y. Chen)



Attendance and Registration

Advance Registration	
Standard	800 USD × 1100
Student	400 USD × 320
Late Registration	
Standard	900 USD × 385
Student	500 USD × 80
On-Site Registration	995 USD × 10
One-Day Registration	400 USD × 23
One-Day Registration (Student)	200 USD × 2
Spouse/Guest Registration	300 USD × 50
Exhibitor Registration	0

#

Total Income

Registration	1,429,050
Industrial Sponsorship	280,000
Exhibition	80,000
Banquet Ticket Purchase (students, unregistered guests etc.) (150 USD × 200)	30,000
Total	1,819,050

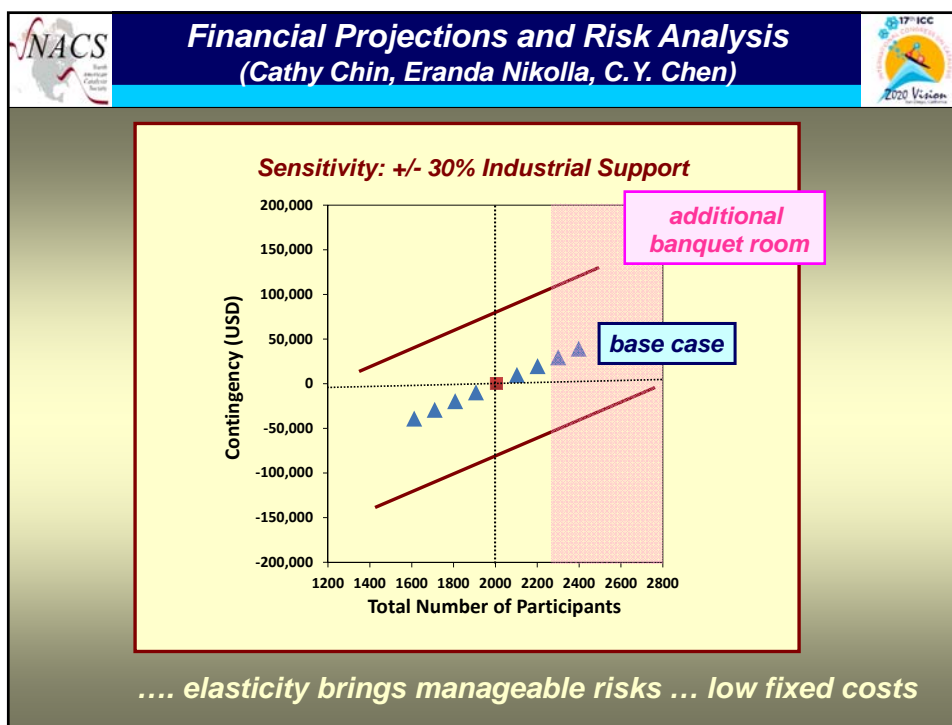
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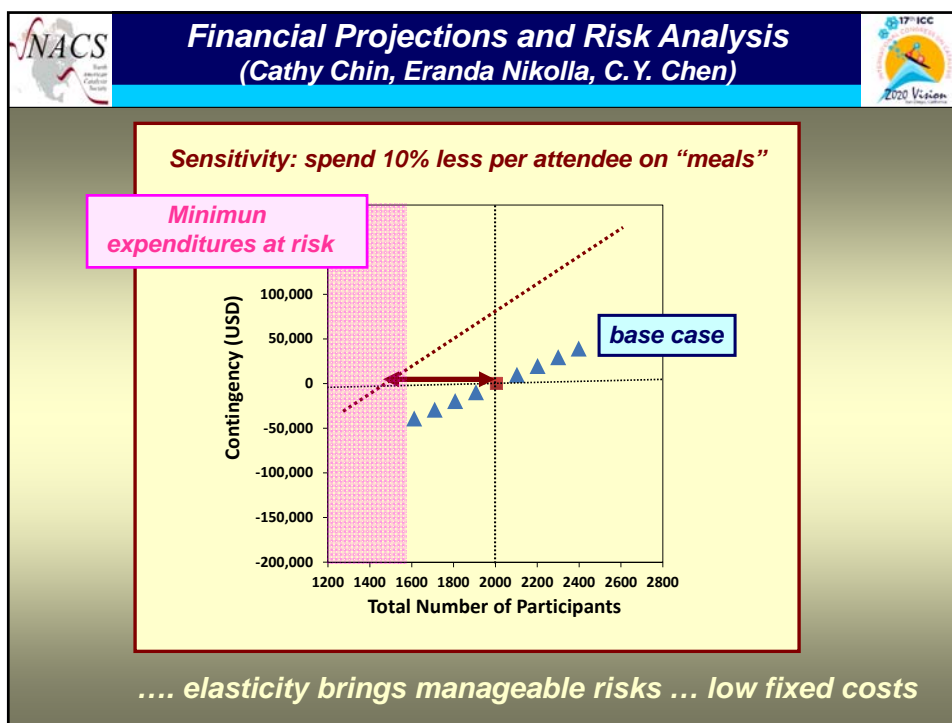
(All amounts in US dollars)

Financial Projections and Risk Analysis (Cathy Chin, Eranda Nikolla, C.Y. Chen)	
Expenses (USD)	
Audio-visual and Poster Board	105,000
Printed and Digital Matter	
Program Book	30,000
Poster Book	15,000
Abstracts on Memory Stick	5,000
Mailing costs	3,000
Conference Bags	38,500
Ancillary technical support (website development, app, etc.)	15,000
Opening Reception	
Facility Rental, Food, Entertainment, Transportation	254,237
Conference Banquet	364,290
Coffee Breaks (× 9)	280,519
Poster Sessions (× 2)	202,120
Young Scientist Prize	20,000
Miscellaneous (security, insurance, registration counter, website, registration fee, electricity)	151,480
Other Spending in Hyatt (Committee meeting, crew beverage, etc.)	11,437
MSI Fees	162,380
IACS Contribution (10% of registration fee)	147,905
Contingency funds	18,182
Total	1,819,050

(All amounts in US dollars)

variable costs



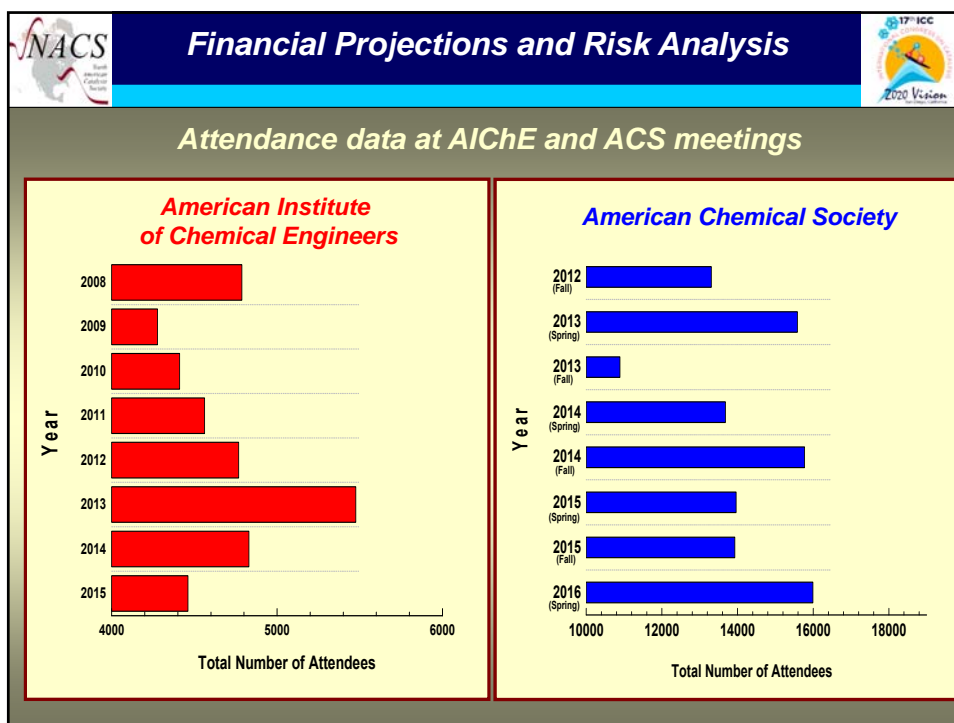


Financial Projections and Risk Analysis

If we hold it

will they come?

Registration	800 USD
Hotel rates	290 USD/night



NACS Basic Energy Catalysts Research

Technical, Logistical and Financial Support (Industry and Federal Agencies)

17th ICC
2020 Vision

<p>Julie Francis, Sr. R&D Director of FCC <i>Albemarle Corporation</i></p> <p>Peter Walther, Senior Vice President, Heterogeneous Catalysis <i>BASF Corporation</i></p> <p>Ronald J. Unnerstall, Group Head of Engineering, Vice President Refining Technology and Engineering, Charles A. Damianides, Vice President, BP Petrochemicals Angelo Amorelli, Technology Vice President BP Group Research <i>BP, p.l.c.</i></p> <p>Bob Saxton, Manager - Catalysis, Reactor Science and Separations <i>Chevron Energy Technology Company</i></p> <p>Chandra Ratnasamy, Head of R&D <i>Clariant Corporation</i></p> <p>Aleksey Yezerets, Director - Catalyst Technology, Corporate Research and Technology <i>Cummins Inc.</i></p>	<p>Raul Miranda, Program Manager and Team Lead, Basic Energy Sciences/Chemical Sciences, Geosciences & Biosciences Division <i>U.S. Department of Energy</i></p> <p>Bob R. Maughon, R&D Vice President, Performance Plastics & Hydrocarbons <i>The Dow Chemical Company</i></p> <p>Jose G. Santiesteban, Manager Catalyst Technology Division Kenneth J. Del Rossi, Manager, Process Technology Department <i>ExxonMobil Research & Engineering Co.</i></p> <p>Robert Gatte, Vice President, Chief Technologist <i>W.R.Grace & Co.</i></p> <p>James E. Rekoske, Vice President, Chief Technology Officer <i>Honeywell UOP LLC</i></p> <p>Scott Stevenson, Research Fellow, Corporate R&D <i>SABIC</i></p>
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Opening Reception at Balboa Park



June 14, 2020; 6:30 pm



San Diego Museum of Natural History

*..... adjacent venues with
3,000 maximum capacity*



SDNHM's Rooftop Terrace - daytime:



Reuben H. Fleet Science Museum



Closing Banquet and Reception Manchester Grand Hyatt (June 18, 2020)

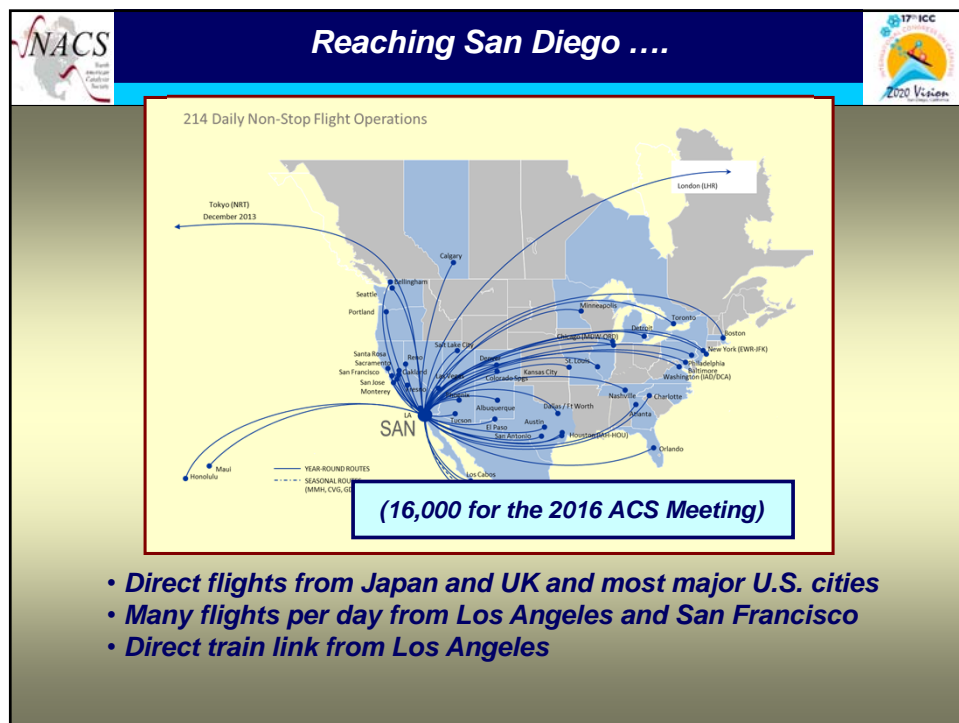
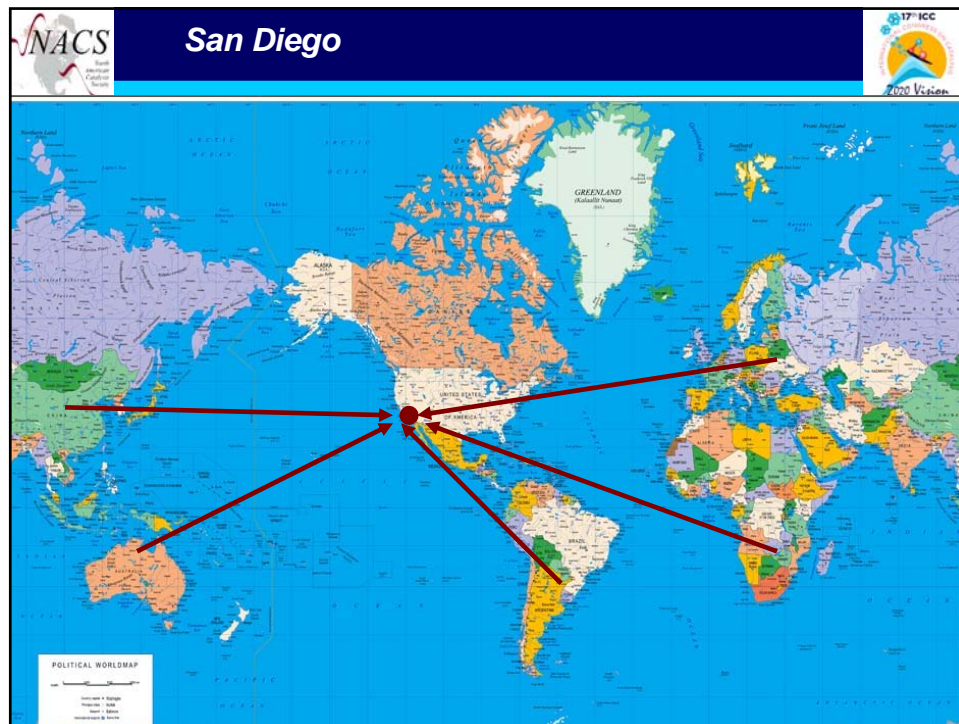


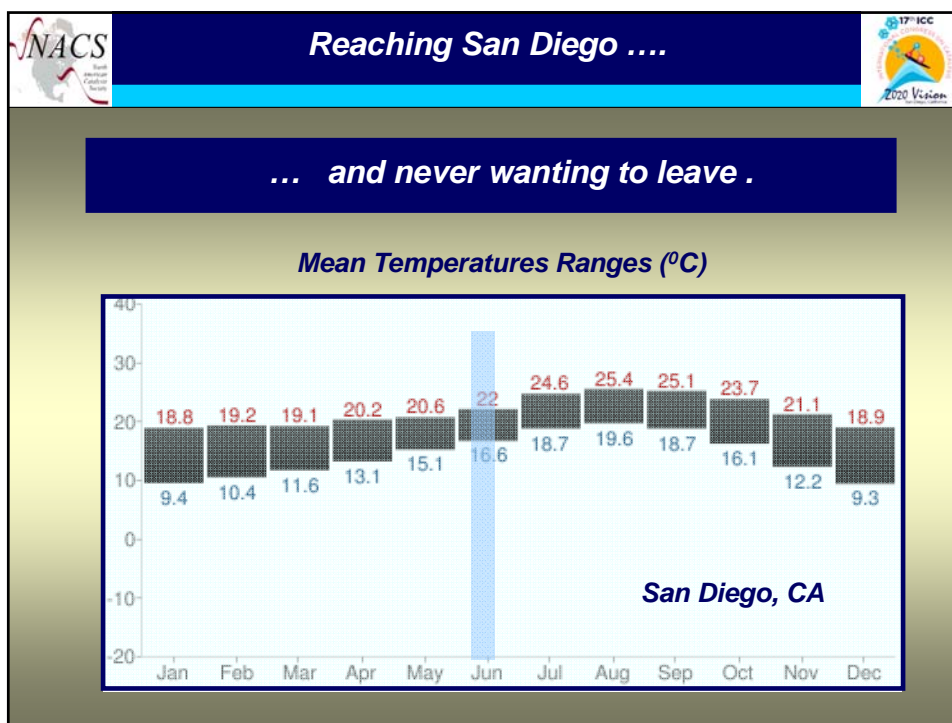




Seaport Ballroom / 2220







NACS *Nearby attractions and tours* **17th ICC** *2020 Vision*

Torrey Pines State Reserve

La Jolla

Temecula Valley
SOUTHERN CALIFORNIA WINE COUNTRY

... the fastest growing wine region in the US

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NACS *North American Catalysis Society*

17th ICC
INTERNATIONAL CONGRESS ON CATALYSIS
2020 Vision
San Diego, California

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