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<http://socrates.berkeley.edu/~rael>

U. S. Citizen, Married, daughter (Folasadé)

CV and Publications • <http://socrates.berkeley.edu/~kammen>
Renewable and Appropriate Energy Laboratory (RAEL) • <http://socrates.berkeley.edu/~rael>

RESEARCH INTERESTS

Science and technology policy focused on energy, development and environmental management. Technology and policy questions in developing nations, particularly involving: the linkages between energy, health, and the environment; technology transfer and diffusion; household energy management; renewable energy; women; minority groups. Global environmental change including deep cuts in greenhouse gas emissions and resource consumption. Environmental and technological risk. Management of innovation and energy R&D policy. Geographic expertise: Africa; Latin America.

EDUCATION

Ph.D.	Harvard University	Physics	June 1988
M.A.	Harvard University	Physics	June 1986
A.B.	Cornell University	Physics	May 1984

POSITIONS HELD

2001 - Professor of Public Policy in the Goldman School of Public Policy, University of California, Berkeley
2001 - Professor of Energy and Society, University of California, Berkeley
2001 - Professor of Nuclear Engineering, University of California, Berkeley
1999 - Director, (**Renewable and Appropriate Energy Laboratory; RAEL**)
University of California, Berkeley
1999 - 2001 Associate Professor of Nuclear Engineering, University of California, Berkeley

- 1998 - 2001 Associate Professor of Energy and Society, Energy and Resources Group (ERG), University of California, Berkeley
- 1997 - 1999 Chair, Science, Technology & Environmental Policy Program (STEP), Woodrow Wilson School of Public and International Affairs, Princeton University
- 1997 - 1999 Class of 1934 Preceptor, Woodrow Wilson School of Public and International Affairs
- 1993 - 1999 Assistant Professor of Public and International Affairs, Woodrow Wilson School of Public and International Affairs, Princeton University
- 1993 - 1999 Research Faculty, Center for Energy and Environmental Studies, School of Engineering and Applied Science, Princeton University
- 1993 - Permanent Fellow, African Academy of Sciences
- 1991 - 1993 Research Associate, Northeast Regional Center for Global Environmental Change, and the Department of Physics, Harvard University
- 1991 - 1993 Affiliate Fellow, Center for Science and International Affairs, John F. Kennedy School of Government, Harvard University
- 1988 - 1991 Weizmann & Bantrell Postdoctoral Research Fellow in the Division of Engineering and Applied Science, and the Division of Biology, California Institute of Technology

TEACHING

University of California, Berkeley

- Environmental Classics (ER290) (with Dr. Isha Ray)
- Methods in Interdisciplinary Studies ('Tricks of the Trade') (ER292B)
- Freshman Seminar: The Century of Fossil Fuels, the Century of Global Warming (ER24)
- Energy and Society (ER100/200)
- Renewable Energy (ER120)
- The Politics of Climate Change Policy (ER290) [faculty advisor]
- Energy and Development (ER290)
- Group Studies in Energy Research (ER298)
- Individual Research in Energy (ER299)
- Issues in Nuclear Science and Technology (NE39) (team taught)
- Honors Research – Environmental Science, Policy and Management (ESPM, College of Natural Resources, H196)

Princeton University

- Environment and Development (WWS 571b)
- Technology Transfer and Development (WWS 571c)
- Methods in Science, Technology and Public Policy (WWS 589)
- Process and Methods in Science and Technology Policy (WWS 308)
- Topics in Renewable Energy Conversion (MAE 319) (team taught)
- Science, Technology and Public Policy (WWS 304)
- Environmental Science and Policy (ENV 201) (team taught)

Harvard University

- Senior Engineering Thesis Research (Engineering Sciences 96r)

- Biomass, Land Management, and Environmental Change (Chair, Working Group) John F. Kennedy School of Government
California Institute of Technology
- Tropical Development and Conservation (Biology 23)

POSTDOCTORAL ADVISEES

- 2000 - Timothy Lipman (Ph.D. 1999) University of California, Davis, Environmental Policy Analysis/Graduate Group in Ecology; Institute of Transportation Studies - Davis)
- 2000 - 2002 Antonia Herzog (Ph.D. 1997, University of California, San Diego, Physics). UC Presidential Postdoctoral Fellow, 2000 – 2001
Current: Senior Policy Researcher, Natural Resources Defense Council, Washington, DC.
- 1998 - 2001 Lloyd Connelly (Ph.D. 1998, University of California, Berkeley, Mechanical Engineering).
Current: Enrolled in Medical School, University of California, Davis.
- 1997 - 1999 Daniel Klooster (Ph.D. 1997, University of California, Los Angeles, Geography)
Current: Assistant Professor of Geography, Florida State University
- 1996 – 1997 Lisa Naughton (Ph.D. 1996, University of Florida, Wildlife Ecology)
Current: Assistant Professor of Geography, University of Wisconsin, Madison.

DOCTORAL DISSERTATION ADVISEES (UCB students unless indicated)

- 2002 - Tracey Osborne, “Biomass and Development in the Caribbean”
- 2001 - Kamal Kapadia, ‘Renewable Energy for Development’
- 2000 - Nate Hultman, “Carbon Markets, Climate Change Science and Policy”, NASA Earth Sciences Doctoral Fellow, 2000 - 2003
- 1999 - 2001 Andrew MacAllister, “Renewable energy infrastructure”, Link Energy Fellow, 1999-00
- 2000 - Joanna Lewis, “Wind Energy Infrastructure in China”
- 1999 - Donna Green, “Solar battery charging, development, and politics in Thailand”.
- 1999 - Robert Bailis, “Renewable energy and development”, FLAS Fellow, 1999-2000.
- 1998 - Arne Jacobson, “Renewable energy and development” Link Energy Fellow, 2000 – 2001.
- 1998 - Chris Greacen, “Renewable energy and development”, US EPA STAR Fellow, 1998 - 2001).
- 1997 - 2001 Richard D. Duke (STEP, Princeton) “Economics of renewable energy technologies” (Link Energy Foundation Fellow, ‘98 - ‘99; US EPA STAR Fellow, 1998 - 2001). Thesis: *Clean Energy Technology Buydowns: Economic Theory, Analytic Tools, and the Photovoltaics Case*
Current: Senior Financial Analyst, MacKenzie Consulting, New York City, NY.
- 1996 - 1999 Katherine Purvis (Chemistry, Princeton) “Toxic Paint Solvents and Worker Exposure in Kenya” (PEI-RISE; with S. Bernasek, Chemistry)

- Current: Assistant Professor of Chemistry and Environmental Studies, The Claremont Colleges, Claremont, California
- 1996 - 2001 Robert Margolis (STEP, Princeton) "US energy R&D and innovation"
- 1995 - 2000 David Hassenzahl (STEP, Princeton). Thesis: *Comparative Environmental Regulation and Risk Management*
- Current: Assistant Professor of Science Policy, UNLV (Greenspun School of Public Policy)
- 1995 - 2000 Majid Ezzati, (STEP, Princeton). Thesis: *Energy Technology, Indoor Air Pollution, and Respiratory Infections in Developing Countries: A Field Study from Central Kenya* (SSRC International Pre-Dissertation Fellow, '97 - '98).
- Current: Fellow, Resources for the Future, Environment and Risk Group (Washington, DC).
- 1994 - 1997 Amy F. Richardson (WWS, Princeton), *People, Preferences, Parties and PAC's: Constituent Representation in the Senate on Environmental Issues* (with L. M. Bartels).
- Current: Senior Fellow, Environmental Policy Analysis, Mackenzie Consulting, Pittsburgh, PA.

Dissertation Committees:

- 1997 – 2001 Teresah Holloway, Atmospheric and Oceanic Studies, Princeton University
Current: Postdoctoral Fellow,
- 1993 – 1997 Georgios Kassinis, WWS, Princeton University
Current: Assistant Professor of Public Policy, University of Cyprus, Greece.

UNDERGRADUATE THESIS ADVISEES

- 1999 – 2000 Advised 4 undergraduate senior projects (UC Berkeley), departmental honors (3)
- 1998 – 99 Advised 7 senior thesis (Princeton University)
- 1996 - 97 Advised 6 senior theses (Princeton University)
Student honors include: Marshall Fellowship, a Fulbright Scholarship (to Kenya); the Westoff Prize in Demography; Woodrow Wilson School Senior Thesis Prize; Princeton Environmental Institute Senior Thesis Prize; Civil Engineering and Operations Research Senior Thesis Award (CEOR Prize).
- 1995 - 96 *On leave*: Advised 1 senior thesis (Princeton University)
Student honors include: the Lieutenant John A. Larkin, Jr. Memorial Prize (WWS); and the Environmental Studies Senior Thesis Award from the Princeton Environmental Institute.
- 1994 - 95 Advised 7 senior theses (Princeton University)
Student honors include: a Rhodes Fellowship; a Marshall Fellowship; Princeton University's Pyne Prize; and a Fulbright Scholarship (to Mexico)
- 1993 - 94 Advised 5 senior theses (Princeton University)
Student honors include: the Gaile F. Johnson Prize in Public Affairs (WWS); and a Fulbright Scholarship (to Kenya)
- 1992 - 93 Advised 2 senior theses (Harvard University)
Including one nominated for a Hoopes Prize
- 1991 - 92 Advised 2 senior theses (Harvard University)

EXTERNAL RESEARCH FUNDING AWARDS (Principal Investigator unless noted)

Pending:

“Climate Dynamics and Health in Sub-Saharan Africa”, with D. Balk (Columbia University), submitted to the US National Institute of Health, \$450,000.

“Integrative Methods and Models in Global Carbon Management”, National Science Foundation – Biocomplexity. Co-PI with J. Harte, D. M. Kammen, R. Norgaard, \$950,000.

“Local approaches to energy management and indoor air quality”, US AID, \$95,000.

Current & Past Support:

- 2003 - “A Review of Approaches to Advanced Power Technology Programs in the United States and Abroad Including Linked Mobile and Stationary Sector Developments”, California Air Resources Board, \$63,000.
- 1999 - “Research, education and outreach on energy and sustainable societies” The Energy Foundation, (San Francisco, CA), \$250,000.
- 2000 Solo Energy Corporation. Unrestricted gift to support RAEL, \$40,000.
- 2000 – 2001 Core Management Team (with E. Vine [LBL], J. Sharpless [former CEC Commissioner], J. Quinn [UC Davis], K. Birkinshaw [CEC]), California Energy Commission, Public Interest Environmental Research – Environmental Area (PIERA), \$10,500,000 annual program budget.
- 2001 – 2002 “UV Water Purification Technology for Development”, Award Winning Entry, the World Development Marketplace Competition, \$100,500.
<http://www.developmentmarketplace.org/html/results.html#DMAward>
- 2000 – 2001 Faculty Research Grant (COR), “Sustainable Renewable Energy Markets”, \$5600.
- 2000 – 2001 “Resources Policy Internship Program”, California Public Utilities Commission, \$815,000.
- 2000-2002 “Biomass Energy For Sustainable Economic, Social, And Environmental Development In Zimbabwe”, Shell Environmental Initiative (London, UK), \$260,000.
- 1999 - 2000 “Photovoltaic System Field Evaluation and Training Program for East Africa”, \$54,000, The Lewis Anthony Dexter Charitable Trust (Chicago, Illinois, USA).
- 1999 - 2000 “Dissemination of Small-scale UV Water Disinfection Systems in Southern Mexico: Support and Evaluation”, \$12,000, The Lewis Anthony Dexter Charitable Trust (Chicago, Illinois, USA).
- 1998 - 2000 Co-PI (w/Lisa Naughton, University of Wisconsin) “Resource Access and Environmental Change: An Analysis of the Linkages Between Forest Property Rights, Biofuel Management, and Ecological Impacts in western Uganda”, \$50,000, National Science Foundation Grant SBR 98-10144; Division of Geography and Regional Science.

- 1996 - 1998 "Community Energy, Ecology and Health Management: Laikipia, Kenya". The Summit Foundation, Washington, DC, \$198,000.
- 1996 - 1998 "Sustainable development in Molo, Kenya," \$95,211. The Dubois Fund, Houston, TX.
- 1996 - 1998 "Community Energy, Ecology and Health Management: Laikipia, Kenya". The Compton Foundation, Menlo Park, CA, \$25,000.
- 1995 - 1996 MacArthur Foundation grant for student-faculty collaborative research, \$7,600.
- 1993 - 1995 "Engineering and policy analysis of renewable energy technology transfer: solar and nuclear energy," Department of Energy, Northeast Regional Center for Global Environmental Change, \$66,500.
- 1993 - 1994 Research Fellowship: Program on Environment, The East-West Center for Cultural and Technical Exchange, Honolulu, Hawaii, \$9,000.
- 1993 *Award Recipient: 21st Century Award* from Nihon Keizai Shimbun, Inc. and the Global Industrial and Social Progress Research Institute: ¥5 m (\$45,000).
- 1992 - 1996 Center for Field Research (*Earthwatch*): \$94,000; "Solar and wind energy for Kenya." An additional local expertise research and training components were supported by: Green Cross International (1995), UNESCO (1994) to provide scholarships to African scholars and community activists working in the area of renewable energy and the environment.

AWARDS

Aldo Leopold Environmental Leadership Fellow (2001) (*Declined*).

Development Marketplace (2000) Award Winner, the World Bank. "Low Cost UV Water Disinfection System for Household Use in Lesser-Developed Nations (Dr. Lloyd Connelly and D. M. Kammen).

WWW: <http://www.developmentmarketplace.org>

Class of 1934 Preceptor, 1996 - 1999 (Woodrow Wilson School)

Bronze Medal (with Danielle A. Gordon) *Chicago Quantitative Alliance 1995 Academic Competition* for the paper, "Uncertainty and overconfidence in time series forecasts: application to the Standard & Poor's 500 stock index", *Applied Financial Economics*, **6 (3)**, 189 – 198 (1996).

Awarded the ANBAR Management Intelligence Citation of Excellence (1997):
<http://www.anbar.co.uk/anbar/excellence/authors.htm>

Fellow, American Physical Society (1994). Citation:

For his efforts to foster development with culturally appropriate renewable energy projects and to link local sustainable development with programs to mitigate global environmental degradation.

1993 21st Century Earth Award: for research addressing the amelioration or solution of such global environmental problems as climate change, deforestation or biodiversity preservation. Citation:

For research aimed at reducing greenhouse gas emissions and improving environmental health in developing nations: a proposal for energy management, cooking technology, and education.

Teaching Award (Biology Undergraduate Student Curriculum Committee, California Institute of Technology, 1991).

Weizmann & Bantrell Postdoctoral Fellowship in the Division of Engineering and Applied Science (1988-89), Division of Biology (1989-91); California Institute of Technology.

Cornell University A. B., *Cum Laude* (1984).

Westinghouse Science Talent Search: Honors Group (1980).

EDITORIAL BOARDS

Annual Review of the Environment (2001 – 2005)

Global Change Science (journal developed from *Chemosphere*), 1999 –

Chemosphere, Editor, Global Change Science and Policy Section, 1993 – 1999

ADVISORY COMMITTEES

University of California Green Buildings/Clean Energy Steering Committee, 2003.

Elected At Large Member, Section on Societal Impacts of Science and Engineering (Section X), American Association for the Advancement of Science (AAAS), 1998 – 2002.

California Energy Commission, Core Management Team, Public Interest Environmental Research – Environmental Area (PIEREA), \$10,500,000 annual budget, 2000 – 2002.

Roster of Experts, Scientific and Technical Advisory Panel (STAP); Global Environment Facility (GEF), 1996 -

The Annapolis Center for Risk Analysis, 1995.

Team Leader, Evaluation of Energy, Environment, and Development Programme, Africa

Division, Swedish International Development Cooperation Agency (Sida), 1996 - 1997

U. S. Environmental Protection Agency (Climate Change Division)

Editorial Advisory Council, *African Technology Forum*, 1994 - 1996

U. S. Department of Energy: National Institute for Global Environmental Change, 1993 – 1995

Elected Member, The Council of Advisors: Energy Section (<http://www.thecouncils.com/>)

REFEREE

Journals:

Ambio, Appropriate Technology, Atmospheric Environment, Energy Policy, The Energy Journal, Energy - The International Journal, Environment, Environmental Health Perspectives, Environmental Science & Technology (EST), Global Biogeochemical Cycles, Global Change Science, Nature, Risk Analysis, Science, Scientific American,

Solar Energy, Strategic Environmental Management, World Bank Research Observer, Whole Earth, World Development

Publishers:

Cambridge University Press, Island Press, McGraw Hill, MIT Press, Resources for the Future, UNDP, World Resources Institute, Yale University Press

Funding Agencies:

Compton Foundation, Earthwatch, GEF/UNDP, National Institute of Health, National Science Foundation, US AID, US EPA, US NIH, Winrock International Foundation

LANGUAGES & TECHNICAL SKILLS

Spanish (conversant), Swahili (conversant)

Private Pilot (PPL: Single Engine, Land)

Concert electrical wiring (*Grateful Dead*, Summer 1988)

Computer Programming: BASIC, C++, FORTRAN, PASCAL, STATA

REFERENCES: Available Upon Request

UNIVERSITY SERVICE, RESEARCH AND PROGRAM ADMINISTRATION

At the University of California, Berkeley:

2002 Executive Committee, Berkeley 'Future of the Planet' program.

2002 Harry S. Truman Fellowship Selection Committee, 2001 – 2003.

2003 Udall Fellowship Selection Committee, 2001 – 2003.

2004 Chair, Faculty Search Committee, "Science, Technology and Environmental Policy", ERG Search.

2005 Search Committee, Dean of the College of Natural Resources, 2001 – 2002.

2006 Committee on Status of Women and Ethnic Minorities (SWEM), 2001 – 2002.

2007 Chair, Faculty Search Committee, "Environmental and Development Sociology", Energy and Resources Group (2000 – 2001). Successful recruitment of Dr. Isha Ray

2008 Search Committee Member, "Science, Technology and Environmental Policy", joint search between ERG and the Goldman School of Public Policy (1999 – 2001)

2009 Campus Representative - Advisory Committee of the University of California Energy Institute (UCEI), 1999 – 2002.

2010 Co-Chair, Curriculum Committee, Energy & Resources Group, 1999-

2011 Faculty Affiliate, African Studies Program, 1998-

2012 Faculty Affiliate, Center for Risk Analysis, 1998-

2013 Faculty Affiliate, Health, Environment and Development (HED) Program, 1998-

At Princeton University:

- Faculty Fellow, Princeton Society of Fellows, 1998 - 1999

- Labouisse Development Studies Fellowship Selection Committee, 1996 - (Chair, 1998-1999)

- Chair, Science, Technology & Environmental Policy (STEP) Program, 1997 - 1999

- Co-Chair, Program on Science, Technology and Public Policy, 1993 - 1997

- Woodrow Wilson School Student-Faculty Diversity Committee, 1996 - 1997

- Associate Faculty, Princeton Environmental Institute, 1996 - 1999
- Faculty Fellow, Forbes College, Princeton University, 1994 - 1999
- Princeton Environmental Initiative, Planning committee, 1993 - 1994.
- Program Director, conference: "Polluted or Pristine? Scientific, cultural, and policy implications of pre-industrial anthropogenic impact on the global carbon cycle", hosted by the Program on Environment, East-West Center, Honolulu, Hawaii. September 17 - 19, 1993.
- Woodrow Wilson School: Undergraduate Prize Committee, 1993 - 1994
- Woodrow Wilson School: Ph.D. Admissions Committee, 1993 - 1995, 1996 - 1999
- Woodrow Wilson School Undergraduate Committee, 1993 - 1995, 1996 - 1999
- Princeton University Committee on African Studies, 1993 - 1999

At Harvard University:

- Harvard University Committee on African Studies, 1991 - 1993.

INTERNATIONAL ORGANIZATIONS

- Advisor, Energy Sector, Asian Development Bank, 2000 -
- Coordinating Lead-Author, Intergovernmental Panel on Climate Change (IPCC), Special Report on Technology Transfer (1998 - 2000)
- Global Environment Facility (GEF/UNDP), Scientific and Technical Review Panel, 1997 - 2002
- Co-Chair (with Stephen Karekezi) Princeton-AFREPREN (African Energy Policy Research Network) Visiting Fellows Program for emerging scholars from developing nations.
- AAAS Member-at-Large, Section Committee on Societal Impacts of Science and Engineering, 1998 - 2002 (elected member).
- American Physical Society, 1983 - 1987, 1993 -
Elected to the Executive Committee: *Forum on Physics and Society*, 1995 - 1998
Nominating Committee, 1997 - 1998
- American Association of Geographers, 1992 - 1997
- American Wind Energy Association, 1994 -
- National Council, Federation of American Scientists, 1995 - 2000
- African Academy of Sciences, Elected Permanent Fellow, 1995

PUBLIC OUTREACH AND ACTIVISM

Chairman of the Advisory Panel, EcoEquity (<http://www.ecoequity.org>)

BOOKS & EDITED VOLUMES

In preparation:

Energy Farmers: An exploration of old and new modes of thinking about, and managing energy resources.

Where There's Smoke: Uncovering the World's Number One Killer

Book on energy, health, and development. This book, intended for a popular audience is represented by the literary agency of Sanford J. Greenburger Associates.

The Road to Celebration: Adventures in Energy and Development in route to Sandinista Nicaragua (Contract with Columbia University Press: New York). Manuscript complete.

In print:

- 2002 Climate Technology Initiative, Contributing Author (2002) *Technology Without Borders: Case Studies of Successful Technology Transfer* (International Energy Agency: Paris, France).
URL: <http://www.iea.org/public/studies/cti.htm>
- 2000 Intergovernmental Panel on Climate Change Working Groups II and III (2000) *Methodological and Technological Issues in Technology Transfer* (Cambridge University Press: New York, Cambridge UK and New York, NY). Coordinating Lead Author. ISBN 0-521-80494-9.
- 1999 Kammen, D. M. and Hassenzahl, D. M. *Should We Risk It? Exploring Environmental, Health and Technological Problem Solving*, in press, Princeton University Press. ISBN 0-169-00426-9, 406 pages, 77 tables, 82 illustrations.
WWW: <http://socrates.berkeley.edu/~kammen/#book>
• Book Club Selection: *Library of Science*. Reviewed in *Science*, *Risk Analysis*, *Scientific American*, *WholeEarth*.
- 1996 Nditu, M. and Kammen, D. M. *Solar Cookbook: Less Wood, Less Smoke, Better Health* (Academy Science Publishers: Nairobi, Kenya). ISBN 9966-831-32-0.
1996. Kiswahili version of *Solar Cookbook*. *Kitabu cha Upishi Ukitumia Kawi ya Jua*. ISBN 9966-831-33-9.
- 1994 Kammen, D. M., Smith, K. R., Rambo, A. T. and Khalil, M. A. K (editors) Preindustrial Human Environmental Impacts: Are there Lessons for Global Change Science and Policy? *Chemosphere* (Pergamon Press: Oxford UK), Vol. 29 (5), 317 pages.

JOURNAL PUBLICATIONS, BOOK CHAPTERS & ARTICLES

In preparation or review:

- Kammen, D. M. and Karakezi, S. (2002) “The Power of Development: Energy Policies to Empower, Not Build Technological Imperialism”, in preparation.
- Chiu, W. A., Cox, L., Kammen, D. M. (2002) “A new model of one- and two-stage carcinogenesis and low-dose risk response”, in preparation.
- Hassenzahl, D. M., Goble, R. L., Kammen, D. M. and Hattis, D. B. (2002) “When can a risk assessment conclude that there is no risk?” *Risk Analysis*, in review.
- Kammen, D. M. (2002) “Energy and Equity” in *The Encyclopedia of Energy*, C. Cleveland (ed.), (Academic Press, San Diego, CA).
- Kammen, D. M. (2002) “A Taxonomy of Renewable Energy” in *The Encyclopedia of Energy*, C. Cleveland (ed.), (Academic Press, San Diego, CA).
- Kammen, D. M. and Pacca, S., (2003) “The true costs of energy”, *Annual Review of Energy and the Environment*, **28**.

NOTE: MOST OF THE ARTICLES LISTED BELOW ARE AVAILABLE IN PDF FORMAT FROM:
<http://socrates.berkeley.edu/~rael/papers.html>

FOR THE FOLLOWING ARTICLES IN PRINT: • = REFEREED PUBLICATION (85 OF 133 TOTAL)

2003

133. • Bailis, R., Ezzati, M., and Kammen, D. M. (2003) “Greenhouse Gas Emissions from Cooking Technologies in Kenya”, *Environmental Science & Technology*, in press.

2002

132. • Hultman, N. E. and Kammen, D. M. (2002) “Equitable Carbon Revenue Distribution under an International Emissions Trading Regime”, Conference Paper No. 5; Available at: <http://www.umass.edu/peri/pdfs/CDP5.PDF>
131. • Lipman, T. E. and Kammen, D. M. “Renewable Energy: Now a Realistic Challenge to Oil”, in *The Future of Oil as a Source of Energy*, 87 – 107.
130. • Duke, R. D. and Kammen, D. M. (2002) “Energy for Development: Solar Home Systems in Africa and Global Carbon Emissions “*Climate Change for Africa: Science, Technology, Policy and Capacity Building*, Pak Sum Low, editor (Kluwer Academic Publishers), 250-266.

129. • Ezzati, M., and Kammen, D. M. (2002) “Health effects of biomass use for rural cooking in developing nations”, *Indoor Air*, June, 2002.
128. • Bailis, R., Ezzati, M., and Kammen, D. M. (2002) “An Estimate of Greenhouse Gas Emissions from Common Kenyan Cookstoves Under Conditions of Actual Use”, *Indoor Air*, June, 2002.
127. • Ezzati, M. and Kammen, D. M. (2001) “The Health Impacts of Exposure to Indoor Air Pollution from Solid Fuels in Developing Countries: Knowledge, Gaps, and Data Needs”, *Environmental Health Perspectives*, **110** (11), 1 - 12.
126. • Kammen, D. M. (2002) “Innovation, Energy, and the Environment”, in *Energy for Sustainable Development: Getting it Right*, Goldemberg, J. and Johansson, T. (eds.), United Nations Development Programme (New York, NY, USA).
125. • Ezzati, M. and Kammen, D. M. (2002) “Household Energy, Indoor Air Pollution and Public Health: Research and Policy Needs in Developing Countries”, *Annual Review of Energy and the Environment*, **27**, 1 - 38.
124. Herzog, A. V. and Kammen, R. D. (2002) “Energy R&D investment challenge”, *Materials Today*, May, 28 – 33.
123. Herzog, A. V., Lipman, T., Edwards, J. and Kammen, D. M. (2002) “U. S. Needs Renewable Energy Targets”, *World Rivers Review*, **17** (1), 9.
URL: <http://www.irn.org>
122. Kammen, D. M. (2002) “Time for a real energy policy”, *Environmental Law News*, **10** (3), 13 – 16.
URL: <http://www.calsb.org>
121. • Ezzati, M. and Daniel M. Kammen (2001) “Evaluating the health benefits of transitions in household energy technologies in Kenya:”, *Energy Policy*, **30**, 815 - 826
120. • Duke, Richard. D, Jacobson, Arne, and Daniel M. Kammen (2002) “Product quality in the Kenyan solar home industry”, *Energy Policy*, **30** (6), 477-499.

119. • Purvis, K. L., Jumba, I. O., Wandiga, S., Zhang, J. and Kammen, D. M. (2001) “Worker exposure and health risks from volatile organic compounds utilized in the paint manufacturing industry in Kenya”, *Applied Occupational and Environmental Hygiene*, **16 (11)**, 1035 – 1042.
118. Kammen, D. M. (2001) “Spreading the word: Dissemination of photovoltaic systems in Kenya”, in *Technology Without Borders: Case Studies of Successful Technology Transfer* (Climate Technology Initiative: United Nations Environment Program: OECD/IEA, Paris, France).
117. • Herzog, A. V., Lipman, T., Edwards, J. and Kammen, D. M. (2001) “Renewable Energy: A Viable Choice”, *Environment*, **43 (10)**, 8 – 20.
116. Jacobson, D. and Kammen, D. M. (2001) “What the Governor could do to prevent the next energy crisis”, *The San Francisco Chronicle*, Friday, September 28, page A25.
115. • Ezzati, M., Singer, B.H., and Kammen, D. M. (2001) "Towards an Integrated Framework for Development and Environmental Policy: The Dynamics of Environmental Kuznets Curves," *World Development*, **29 (8)**, 1421-1434.
114. Kammen, D. M. (2001) “Forum: Energy Policy”, *Issues in Science and Technology*, Summer, 5.
URL <http://bob.nap.edu/issues/17.4/forum.htm>
113. Kammen, D. M. (2001) Testimony for the ‘Hearing on the Role of Tax Incentives in Energy Policy’ for the U. S. Senate Committee on Finance, July 11 (United States Senate: Committee on Finance).
URL <http://www.senate.gov/~finance/071101dktest.pdf>
112. Kammen, D. M. (2001) Testimony for the Hearing on ‘Technology and Policy Options for Climate Change’ for the U. S. Senate Committee on Commerce, Science, and Transportation, July 10 (United States Senate: Senate Committee on Commerce, Science, and Transportation).
URL <http://www.senate.gov/~commerce/>
111. Kammen, D. M. (2001) “Renewable energy and energy policies and the California Energy Crisis”, in *Controller’s Quarterly: Energy in California* (Office of Cathleen Connell, California State Controller), Summer, 19 – 21.
URL <http://sco.ca.gov>
110. • Kammen, D. M., Van Boskirk, S, and Nditu, M., (2001) “Solar oven construction manual”, in *Field Guide to Appropriate Technology*, B. Hazeltine and C. Bull (eds) (Academic Press: San Diego, CA).
109. • Kammen, D. M. (2001) “Exposure to indoor air pollution from biofuel stoves in rural Kenya”, in *Field Guide to Appropriate Technology*, B. Hazeltine and C. Bull (editors) (Academic Press: San Diego, CA).

108. • Dove, M. R. and Kammen, D. M. (2001) “Vernacular models of development: Analysis of Indonesia under the ‘New Order’, *World Development*, **29** (4), 619 – 639.
- "Amorphous Silicon PV Panels: Are They a Good Value for the Money?" (2001) Jacobson, A., Duke, R. D. and Kammen, D. M. *African Technology Forum*, April.
URL <http://home.att.net/~africantech/solar/amorphous/amorphous1.htm>
106. • Margolis, R. M. and Kammen, D. M. (2001) “Energy R&D and Innovation: Challenges and Opportunities” in Schneider, S, A Rosencranz, and J. Niles, editors *A Reader in Climate Change Policy* (Island Press: Washington, DC).
105. • Ezzati, M. and Kammen, D. (2000) “Indoor air pollution from biomass combustion and acute respiratory infections in Kenya: An Exposure-response study”, *The Lancet*, **358**, 619 – 624.
104. Kammen, D. M. (2001) “Research, development and commercialization of the Kenya Ceramic Jiko” in Dorf. R. C. (ed.) *Technology, Humans and Society: Toward a Sustainable World* (Academic Press: San Diego, CA), pages 310 – 321.
103. Baer, P., Harte, J., Herzog, A., Holdren, J., Hultman, N., Kammen, D. M., Kresch, B., Norgaard, R., and Raymond, L. (2001) “Atmospheric equity: Response to Westing”, *Science* **291**, 827-828.
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<http://www.kqed.org/tv/productions/greenmeans/gm2descriptions.html>
1. Tunbridge, L. and Kammen, D. M. (1993) "Solar ovens and deforestation in Kenya" *Living on Earth: National Public Radio*, **No. 129**, Originally aired: September 17, 1993.

INVITED TALKS AND PRESENTATIONS (listing of past three years only)

- 2003 • "Emerging clean energy markets", Institute for International Studies, Stanford University, January 30.
- 2002 • Ezzati, M. and D. M. Kammen (2002) "Indoor Air Pollution from Biomass Combustion as a Risk Factor for Acute Respiratory Infections in Kenya" *The Proceedings of Indoor Air 2002: the 9th International Conference on Indoor Air Quality and Climate*; Monterey, CA, July 2002, 4, 970-975
 - Bailis, R., M. Ezzati and D. M. Kammen (2002) "An Estimate of Greenhouse Gas Emissions from Common Kenyan Cookstoves under Conditions of Actual Use" *The*

- Proceedings of Indoor Air 2002: the 9th International Conference on Indoor Air Quality and Climate; Monterey, CA, July 2002, 2, 225-230
- 2001
- ‘Energy and Development’, Yale University School of Forestry and the Environment (1/20/01)
 - ‘Re-defining development’, J. F. Kennedy School of Government, Harvard University (4/16/01)
 - Hearing Testimony, U. S. Senate Committee on Commerce, Science and Transportation (7/10/01)
 - Hearing Testimony, U. S. Senate Committee on Finance (7/11/01)
 - Hearing Testimony, U. S. Senate Committee on Commerce, Science and Transportation
 - ‘Energy R&D and Innovation’, CALPIRG Economists Summit on Energy, State Capital, Sacramento, CA (9/5/01).
- 2000
- UNDP/World Bank Experts Meeting on Making a Difference in Emerging Photovoltaics • Markets, Marrakech, Morocco (9/25-28/00).
 - Energy Options for Development, Addis Ababa University, Ethiopia (6/28/00)
 - New Challenges in Tropical Medicine, Oxford, UK (9/20/00)
 - Human Dimensions of Climate Change Meeting, Carnegie Mellon University (7/19/00)
 - Health Impacts of Indoor Air Pollution and Household Energy Use in Developing Countries, Washington, DC (5/3-4/00)
- 1999
- International Energy Division, Lawrence Berkeley Laboratory
 - Center for International Studies, Stanford University
 - Stanford Linear Accelerator Center (SLAC)
 - Department of Engineering and Public Policy, Carnegie Mellon University
 - The World Bank, Washington, DC
 - Columbia University: School of Engineering
 - Tata Energy Research Institute, New Delhi, India
 - Energy and Resources Group, University of California, Berkeley

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