

Arlene Blum, PhD

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Arlene Blum, PhD, biophysical chemist, author, and mountaineer is Founder and Executive Director of the Green Science Policy Institute and a Research Scientist in Chemistry at the U. of California, Berkeley. Blum's research and policy work has contributed to reducing the use of flame retardants, PFAS another chemicals of concern worldwide. Her Institute educates decision makers in business and government to reduce the use of classes of harmful chemicals.

EDUCATION

PhD, Biophysical Chemistry, University of California at Berkeley	1971
Massachusetts Institute of Technology, Cambridge, Massachusetts	1966-67
B.S., Chemistry, Reed College, Portland, Oregon	1962-66

AWARDS

California Hall of Fame	2018
U.S. Congressional Proclamation in honor of her life work to protect public from toxics	2018
International House, U.C. Berkeley, Alumnus of the Year	2017
US Green Building Council, Women in Sustainability Leadership Award	2015
Reed College, Thomas Lamb Eliot Award for Lifetime Achievement	2015
Benjamin Ide Wheeler Medal as the city of Berkeley's "most useful citizen"	2014
Jean and Leslie Douglas "Pearl Award"	2014
Alameda County Women's Hall of Fame for Science, Engineering & Technology	2014
US Green Building Council NCC "Super Hero" Achievement Award	2013
Consumer Federation of California "Consumer Warrior" Award	2013
Hall of Mountaineering Excellence	2012
American Association for the Advancement of Science Fellow	2011
UK Guardian Top 100 Women Sport & Adventure	2011
National Women's History Project, 100 "Women Taking the Lead to Save Our Planet"	2010
Purpose Prize for those over age sixty starting organizations to solve societal problems	2008
Society of Women Geographers Gold Medal for Outstanding Achievement	1984

EMPLOYMENT

Founder and Executive Director, Green Science Policy Institute	2007-present
Research Associate in Chemistry, UC Berkeley	2017-present
Visiting Scholar in Chemistry, University of California, Berkeley	2008-2016
Corporate consultant, Arlene Blum Lectures & Leadership Training, Berkeley	1981-2007
o Keynote lectures	
o Multicultural seminars	

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- Leadership workshops to help participants develop a shared vision for the future of their organizations for the common good
- Founder and Board Member, Berkeley Himalayan Fair 1983-present
Community event to increase friendship and understanding with the Himalayan peoples
- Instructor and Organizer, University of California at Berkeley 1983-88
 - Designed and taught the Himalayan Trekking and Travel course to about 300 students each year for the Center for South Asian Studies.
- Instructor, University of California at Berkeley 1978-80
 - Designed and taught the course "Cancer; Current Views on Cause and Prevention" to 300 students and community members
- Associate Specialist II, University of California at Berkeley, Department of Biochemistry 1977-80
 - Researched biological and environmental effects of brominated chemicals with Bruce Ames. Wrote papers, taught undergraduates, and worked for regulation of potentially toxic chemicals.
- Consultant, Health and Safety Office of the Oil, Chemical, and Atomic Workers Union 1978-80
 - Studied the reproductive risk to male workers exposed to halogenated chemicals and helped ban the carcinogenic pesticide DBCP.
- Assistant Professor of Chemistry, Wellesley College, Wellesley, Massachusetts 1977
 - Taught Biochemistry and Introductory Chemistry.
- Acting Assistant Professor of Human Biology, Stanford University 1975-76
 - Taught Introduction to Biological Chemistry.

BOARDS OF DIRECTORS

- Advisory Board, Plastic Pollution Coalition 2009-present
- Advisory Board, Environmental Building News 2009-present
- Member of Board of Advisors, Project Read 2006-14
 - Builds libraries and promotes development in Nepal and other countries.
- Member of Board of Directors, Institute for Social and Environmental Transition 2005-14
 - Dedicated to solving climate, water and disaster problems in South Asia.
- Member of Board of Directors, Association for the Protection of Afghan Archeology 2003-13
 - Helped found APAA to raise awareness and preserve the Afghan Archaeological and Cultural Heritage.
- Member of Board of Directors, Earth Island Institute 1988-2000
 - Dedicated to the conservation, preservation of the global environment.
- Founder and Board Chair, American Women's Himalayan Expeditions 1977-85
 - Supports women's mountaineering expeditions.

PUBLICATIONS: BOOKS

Polymer Green Flame Retardants: A Comprehensive Guide to Additives and their Applications.
Elsevier Ltd, 2014, Chapter on "Methodologies for Weighing Fire Safety Benefits"

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against Toxicity Risks for Flame Retardants” Vytenis Babrauskas, Rebecca Fuoco, Arlene Blum

The Poisoning of Michigan, Michigan State University Press, 2009, Joyce Egginton. Afterword by Devra Lee Davis, Maryann Donovan and Arlene Blum

Breaking Trail: A Climbing Life, Scribner’s, New York, 2005; revised paperback edition, Harcourt, New York, 2007 (Finalist for the Outdoor Book Award 2006, readers choice for the Boardman-Tasker award in the UK)

Annapurna: A Woman's Place, by Arlene Blum, Sierra Club Books, 1980, 1998
(Selected for *Fortune* magazine's 2005 list of “The 75 Smartest Business Books We Know” and *National Geographic Adventure Magazine’s* “100 Best Adventure Books of All Time.”)

Women on High: Pioneers of Mountaineering, Rebecca Brown, foreword by Arlene Blum, Appalachian Mountain Club Books, 2002

On Top of the World: Five Women Explorer's in Tibet, Luree Miller, foreword by Arlene Blum, Mountaineers Books, 2000

Tents in the Clouds: The First Women's Himalayan Expedition, Monica Jackson, Elizabeth Stark, foreword by Arlene Blum, Seale Press, 2000

Leading Out: Mountaineering Stories of Adventurous Women, Rachel De Silva, et al, preface by Arlene Blum, Seale Press, 1998

Sisters on the Bridge of Fire, by Deborah Denker, preface by Arlene Blum, Burning Gate Press, Los Angeles, 1993

Clouds from Both Sides, Julie Tullis, foreword by Arlene Blum, Sierra Club Books, 1987

Moving Mountains, Sarah Neustadt, foreword by Arlene Blum, Appalachian Mountain Club, 1987

SCIENTIFIC and POLICY PUBLICATIONS

Blum, A., et al. (2019) Organophosphate Ester Flame Retardants: Are They a Regrettable Substitution for Polybrominated Diphenyl Ethers? *Environmental Science & Technology Letters*.

Bruton, T.A., Blum, A. (2017) Proposal for coordinated health research in PFAS-contaminated communities in the United States, *Environmental Health*, - ehjournal.biomedcentral.com

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Schaider, L.A., Balan, S.A., Blum, A., et al. (2017) Fluorinated Compounds in US Fast Food Packaging. *Environmental Science & Technology Letters*.

Hu, X.C., Andrews, D.Q., Lindstrom, A.B., Bruton, T.A., Schaider, L.A., Grandjean, P., Lohmann R., Carignan, C.C., Blum, A. et al. (2016) Detection of poly- and perfluoroalkyl substances (PFASs) in US drinking water linked to industrial sites, military fire training areas, and wastewater treatment plants. *Environmental Science & Technology Letters* 3:344-350.

Blum A. (2016) Tackling Toxics. *Science Magazine* 351(6278):1117.

Blum A., et al. (2015) The Madrid Statement on poly- and perfluoroalkyl substances (PFASs). *Environmental Health Perspectives*.

Yi-Balan S., Goldenman G., Peoples B., Peaslee G., Diamond M.L., Blum A. (2014) Six Classes: a new approach to reducing the use of harmful chemicals and preventing regrettable substitutions. *Organohalogen Compounds*.

Lindeman A.E., Babrauskas V., Lucas D., Blum A. (2014) Policy changes could reduce the use of flame retardants while maintaining fire safety. *Organohalogen Compounds*.

Blum A., Lindeman A., Yi-Balan S. (2014) Reducing the use of flame retardants and "Six Classes" of harmful chemicals. 14th Workshop on Brominated and other Flame Retardants, Indianapolis, USA.

Blum A. (2013) Fire safety without harm. Sixth International Symposium on Flame Retardants, San Francisco, USA.

Babrauskas V., Lucas D., Eisenberg D., Singla V., Dedeo M., Blum A. (2012) [Flame retardants in building insulation: a case for re-evaluating building codes](#). *Building Research & Information* 40(6):738-755.

Stapleton H.M., Sharma S., Getzinger G., Ferguson P.L., Gabriel M., Webster T.F., Blum A. (2012) [Novel and High Volume Use Flame Retardants in US Couches Reflective of the 2005 PentaBDE Phase Out](#). *Environmental Science & Technology* 46:13432-13439.

Fuoco RE, Blum A, Peaslee GF (2012) From data to policy: An undergraduate program in research and communication. *Journal of College Science Teaching* 42(2): 26-31.

Babrauskas V, Blum A, Daley R, Birnbaum L. (2011) [Flame retardants in furniture foam: Benefits and risks](#). *Fire Safety Science* 10: 265-278.

Stapleton HM, Klosterhaus S, Keller A, Ferguson PL, van Bergen S, Cooper E, Webster TF, Blum A. (2011) [Identification of flame retardants in polyurethane foam collected from baby](#)

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[products](#). *Environmental Science & Technology* 45: 5323-5331. (Selected as the outstanding paper of 2011 by the Journal ES & T).

Daley R, Blum A, Bergman A, DiGangi J, Mortimer D, Lucas D, Schechter A, Scheringer M, Shaw S, de Wit C. (2011) *The San Antonio Statement on Brominated and Chlorinated Flame Retardants: Impacts and potential policy influence*. 12th Workshop on Brominated and other Flame Retardants, Boston, USA.

Blum A. (2011) *Flame retardants in furniture: Is there a fire safety benefit?*. 12th Workshop on Brominated and other Flame Retardants, Boston, USA.

Blum A. [Sitting Safely and Comfortably in California](#). Capitol Weekly 05/05/2011.

Blum A. [Flame Retardants are the Asbestos of our Time](#). Sacramento Bee 04/28/2011.

Shaw SD, Blum A, Weber R, Kannan K, Rich D, Lucas D, Koshland CP, Dobraca D, Hanson S, Birnbaum LS. (2010) [Halogenated flame retardants: Do the fire safety benefits justify the risks?](#) *Reviews on Environmental Health* 25(4): 261-305.

DiGangi J, Blum A, Bergman Å, de Wit C, Lucas D, Mortimer D, Schechter A, Scheringer M, Shaw SD, Webster TF. (2010) [San Antonio Statement on Brominated and Chlorinated Flame Retardants](#) *Environmental Health Perspectives* 118(12): A516-A518.

Blum A. (2010) [Averting Another Toxics Disaster in China](#). *China Environment Series. Issue 11*. Woodrow Wilson International Center for Scholars, Washington D.C., United States.

Blum A, Shaw S, Birnbaum L. (2010) [PBDEs and their replacements: Does the benefit justify the harm?](#) *Organohalogen Compounds* 72: 1296-1301.

Stapleton H, Klosterhaus S, Blum A, Webster T. (2010) [Identification of flame retardants in polyurethane foam collected from baby products](#), 30th International Symposium on Halogenated Persistent Organic Pollutants, San Antonio, United States.

Daley R, Shaw S, Birnbaum L, Blum A. (2010) [It's all about penta: Informing decision-makers about the properties of penta-BDE and its replacements](#). *Organohalogen Compounds* 72: 1673-1678.

Blum A. (2010) [Flame retardants, policy, and public health: past and present](#). 4th International Conference on the History of Occupational and Environmental Health, San Francisco, United States.

Blum A, Shaw S. (2010) [Halogenated Flame Retardants in Consumer Products: Do the Fire Safety Benefits Justify the Health and Environmental Risks?](#) Society of Environmental Toxicology and Chemistry Asia Pacific Meeting, Guangzhou, China.

Klosterhaus S, Stapleton HM, La Guardia M, Davis E, Eagle S, Blum A. (2010) [Recent studies on the identification an occurrence of PentaBDE replacement chemicals in indoor and outdoor environments](#), 5th International Symposium on Brominated Flame Retardants, Kyoto, Japan.

Blum A, Birnbaum L. (2010) [Halogenated Flame Retardants in Consumer Products: Do the Fire Safety Benefits Justify the Health and Environmental Risks?](#) 5th International Symposium on Brominated Flame Retardants, Kyoto, Japan.

Blum A. (2009) [Do Flame Retardants Save Lives? How Peer-Reviewed Science Can Impact Regulatory Decision-Making](#) 11th Annual Workshop on Brominated Flame Retardants, Ottawa, Canada.

Blum A, Fishman E., [Averting a California toxics disaster](#) California Progress Report, 3/13/2009.

Kirshner M, Blum A., [When Product Safety and the Environment Appear to Collide: The Defeat of the Candle Flame Ignition Requirement](#) January 2009.

Ahn KC, Blum A., Fishman E, et al. (2009) Immunoassay for Monitoring Environmental and Human Exposure to the Polybrominated Diphenyl Ether BDE-47, *Environmental Science & Technology* 43: 7784–7790.

Blum A. (2009) [Flame Retardants, Health, and Environment: How Peer-Reviewed Science Can Impact Regulatory Decision-Making](#) *Organohalogen Compounds* 71: 2322-2327.

Stapleton H, Klosterhaus S, Eagle S, Fuh J, Meeker J, Blum A, Watkins D, McClean M, Webster T. (2009) [Identification of tris \(1,3-dichloro-2-propyl\) phosphate and other organophosphate flame retardants in U.S. indoor environments](#), *Organohalogen Compounds* 71:1566-1569.

Stapleton HM, Klosterhaus S, Eagle S, Fuh J, Meeker JD, Blum A, Webster TF. (2009) [Detection of organophosphate flame retardants in furniture foam and U.S. house dust](#). *Environmental Science & Technology* 43: 7490–7495.

Blum A. [Averting another toxics disaster](#) China Dialogue, 12/17/2008.

Blum A., [Did the State Kill my Cat?](#) LA Times, 10/17/2008.

Blum A., et al. [The Case against Candle Resistant TVs: MASTER Whitepaper](#) 6/13/2008.

Blum A., et al. [The Case against Candle Resistant Electronics: MASTER Whitepaper](#) 5/15/2008.

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- Blum A., [The Fire Retardant Dilemma](#) Science Commentary, 10/12/2007.
- Blum A., [Killer Couch Chemicals](#) Huffington Post, 8/16/2007.
- Blum A., [Chemical Burns](#) New York Times, 11/19/2006.
- Blum A. (1978) [Children absorb tris-BP flame retardant from sleepwear: urine contains the mutagenic metabolite, 2,3-dibromopropanol.](#) Science; 201(4360):1020-1023.
- Blum A. (1978) [Another flame retardant, tris-\(1,3-dichloro-2-propyl\)-phosphate, and its expected metabolites are mutagens](#) Science; 200(4343):785-787.
- Blum A, Ames BN. (1977) [Flame-retardant additives as possible cancer hazards](#) Science; 195(4273):17-23.
- Blum A, Smallcomb SH, and Baldwin RL (1975) *Temperature Jump NMR Study of Intermediates in Refolding Ribonuclease*. Biophysical Journal 5, 192a.
- Blum A, Uhlenbeck OC, and Tinoco I (1972) *Circular Dichroism Study of Nine Species of Transfer RNA*. Biochemistry 11, 3248.
- Blum A (1971) *A Circular Dichroism Study of Nine Species of Transfer Ribonucleic Acid*. Ph.D. Thesis, University of California, Berkeley.
- Weil JA, Blum A, Heiss AH, Kinnaird JK (1967) *Conformation and Internal Rotation of Nitroaromatic Amines in Solution as Detected by Proton Magnetic Resonance II, Polynitro Acetanilides*. J. Chem. Phys. 46, 3132.
- Blum A (1966) *Analysis of Fumarole Emanations from Mt. Hood, Oregon*. Senior Thesis, Reed College.