

## George Ban-Weiss, Ph.D.

### Work Address:

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Engineering

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### Education:

Ph.D.	<i>University of California, Berkeley</i>	Mechanical Engineering	May 2008
M.S.	<i>University of California, Berkeley</i>	Mechanical Engineering	May 2005
B.S.	<i>University of California, Berkeley</i>	Mechanical Engineering	May 2003

### Academic Positions:

- Civil and Environmental Engineering      **Assistant Professor**      Aug 2013-current  
University of Southern California
- Heat Island & Climate Science Groups      **Project Scientist**      Apr 2012-Aug 2013  
Lawrence Berkeley National Lab
- Heat Island Group      **Postdoctoral Researcher**      Oct 2010-Apr 2012  
Atmospheric Sciences Dept, Lawrence Berkeley National Lab
- Dept of Global Ecology      **Postdoctoral Researcher**      Oct 2008-Oct 2010  
Carnegie Institution, Stanford

### Encyclopedia articles / book chapters:

**Ban-Weiss GA** and Collins WD (in press) *Aerosols: Role in Radiative Transfer*. Encyclopedia of Atmospheric Sciences 2nd Edition, DOI 10.1016/B978-0-12-382225-3.00053-0

### Peer-Reviewed Publications:

As of March 2014, from Web of Science:

First author publications have 294 citations.

All publications (including co-authorships) have > 450 citations.

H-index = 12

Selected publications (out of 19 published + 3 submitted papers)

**Ban-Weiss GA**, Jin L, Bauer S, Bennartz R, Liu X, Zhang K, Ming Y, Jiang J (submitted)

*Evaluating clouds, aerosols, and their interactions in three global climate models using COSP and satellite observations.*

**Ban-Weiss GA**, Woods J, Levinson R (submitted) *Using remote sensing to quantify albedo of roofs in seven California cities, Part 1: Methods.*

**Ban-Weiss GA**, Woods J, Millstein D, Levinson R (submitted) *Using remote sensing to quantify albedo of roofs in seven California cities, Part 2: Results and applications*

- Ban-Weiss GA, Cao L, Bala G, Caldeira K (2012) *Dependence of Climate Forcing and Response on the Altitude of Black Carbon Aerosols*. Climate Dynamics, 38, 897-911.**
- Ban-Weiss GA, Bala G, Cao L, Pongratz J, Caldeira K (2011) *Climate Forcing and Response to Idealized Changes in Surface Latent and Sensible Heat*. Environmental Research Letters, 6, DOI 10.1088/1748-9326/6/3/034032 \***
- \*Environmental Research Letters Highlight Paper of 2011**
- Anderson RG, Canadell JG, Randerson JT, Jackson RB, Hungate BA, Baldocchi DD, **Ban-Weiss GA**, Bonan GB, Caldeira K, Cao L, Diffenbaugh NS, Gurney KR, Kueppers LM, Law BE, Luysaert S, O'Halloran TL (2011) *Biophysical Considerations in Forestry for Climate Protection*. 9, 174-182, *Frontiers in Ecology and the Environment*.
- Bala G, Caldeira K, Nemani R, Cao L, **Ban-Weiss GA**, Shin HJ (2011) *Albedo Enhancement of Marine Clouds to Counteract Global Warming: Impacts on the Hydrological Cycle*. 37, 915-931, *Climate Dynamics*. DOI 10.1007/s00382-010-0868-1
- Ban-Weiss GA, Lunden MM, Kirchstetter TW, Harley RA (2010) *Size-Resolved Particle Number and Volume Emission Factors for On-Road Gasoline and Diesel Motor Vehicles*. Journal of Aerosol Science, 41, 5-12, DOI 10.1016/j.jaerosci.2009.08.001**
- Ban-Weiss, GA, Caldeira K (2010) *Geoengineering as an Optimization Problem*. Environmental Research Letters, 5, 1-9. DOI 10.1088/1748-9326**
- Cao L, Bala B, Caldeira K, Nemani R, **Ban-Weiss GA** (2010) *Importance of Carbon Dioxide Physiological Forcing to Future Climate Change*. *Proceedings of the National Academy of Sciences*, 107, 9513-9518. DOI 10.1073/pnas.0913000107
- Strawa, AW, Kirchstetter TW, Hallar AG, **Ban-Weiss GA**, McLaughlin JP, Harley RA, Lunden MM, Kean AJ (2010) *Optical and Physical Properties of Primary On-Road Vehicle Particle Emissions and Their Implications for Climate Change*. *Journal of Aerosol Science*, 41, 36-50. DOI 10.1016/j.jaerosci.2009.08.010
- Ban-Weiss GA, Kirchstetter TW, Lunden MM, Harley RA (2009) *Measurement of Black Carbon and Particle Number Emission Factors from Individual Heavy-Duty Trucks*. Environmental Science and Technology, 43, 1419-1424. DOI 10.1021/es8021039**
- Cao L, Bala B, Caldeira K, Nemani R, **Ban-Weiss GA** (2009) *Climate Response to Physiological Forcing of Carbon Dioxide Simulated by the Coupled Community Atmosphere Model (CAM3.1) and Community Land Model (CLM3.0)*. *Geophysical Research Letters*, 36, L10402, DOI 10.1029/2009GL037724
- Kean AJ, Littlejohn D, **Ban-Weiss GA**, Harley RA, Kirchstetter TW, Lunden MM (2009) *Trends in On-Road Vehicle Emissions of Ammonia*. *Atmospheric Environment*, 43, 1565-1570. DOI 10.1016/j.atmosenv.2008.09.085
- Ban-Weiss GA, McLaughlin, JP, Harley RA, Kean AJ, Grosjean E, Grosjean D (2008) *Carbonyl and Nitrogen Dioxide Emissions From Gasoline- and Diesel-Powered Motor Vehicles*. Environmental Science and Technology, 42, 3944-3950. DOI 10.1021/es8002487**
- Ban-Weiss GA, McLaughlin JP, Harley RA, Lunden MM, Kirchstetter TW, Kean AJ, Strawa AW, Stevenson ED, Kendall GR (2008). *Long-Term Changes in Emissions of Nitrogen Oxides and Particulate Matter from On-Road Gasoline and Diesel Vehicles*. Atmospheric Environment, 42, 220-232. DOI 10.1016/j.atmosenv.2007.09.049**