



International Association for  
Food Protection®

## Affiliate Annual Report for Calendar Year 2017

*(Complete Attachment B to be considered for one or more 2018 Affiliate Awards.)*

To maintain compliance with IAFP Constitution and Bylaws, Affiliates must return this completed report. Please send by E-mail to Susan Smith at: [ssmith@foodprotection.org](mailto:ssmith@foodprotection.org).

Please return the following items **electronically** by **Tuesday, February 13, 2018** (late reports will not be considered for awards):

**REQUIRED:**

This completed form (*in English*).

Your Association's membership list (Item 2).

Your Association's list of current term officers (complete Attachment A).

**OPTIONAL:**

Attachment B: Completion required **only** if your Association requests to be considered for one or more Affiliate Awards.

IAFP will now accept **all** Affiliate Annual Reports electronically, including those vying for one or more of the Affiliate Awards. *Affiliates seeking to present the highest quality visual presentation are encouraged to present their Annual Report in the highest quality possible for review by the Selection Committee.*

Digital photos (with names and descriptions) to appear in the *Affiliate View* quarterly newsletter.

IDAHO ENVIRONMENTAL HEALTH ASSOCIATION

Affiliate Name

### 1. Your Official Delegate to IAFP Affiliate Council and Contact

Provide the information requested for your Association's current official Delegate to the IAFP Affiliate Council and official Contact for IAFP correspondence. (**Delegate must be an IAFP Member.**)

#### Official Delegate to IAFP Affiliate Council

Delegate Name	Tyler Fortunati
Address 1	1410 N Hilton St.
Address 2	
City, State ZIP Country	Boise Idaho 83706
Phone Number	208-373-0140
E-mail address	<a href="mailto:tyler.fortunati@deq.idaho.gov">tyler.fortunati@deq.idaho.gov</a>
IAFP Member? Y or N	Y

**Official Contact for IAFP Correspondence (indicate "same" if person also serves as Delegate)**

Contact Name	Tyler Fortunati
Address 1	1410 N Hilton St.
Address 2	
City, State ZIP Country	Boise Idaho 83706
Phone Number	208-373-0140
E-mail address	tyler.fortunati@deq.idaho.gov
IAFP Member? Y or N	Y

**2. Membership**

- a. Indicate the current total number of members in your Association: 118
- b. How many NEW members joined your Association in 2017? 0
- c. Mail, fax or E-mail your current membership list. Include name, title, complete address, phone number, fax number, and E-mail address of all active members.

**3. Meetings: Annual Meeting/Conference, Educational, Workshops, Webinars, etc.**

- a. On what date(s) was your most recent general membership or major meeting (i.e., Annual Meeting/Conference) during the past year? Please list number of attendees.

Idaho Environmental Health Association 2017 Annual Education Conference.

- b. Please provide the date(s) and location of your next scheduled major meeting (i.e., Annual Meeting/Conference):

March 5-7, 2018

- c. List all other general membership meetings held in 2017 (excluding board meetings). Include title, dates and attendance numbers.

Name of Meeting	Date(s) Held	Number of Attendees
IEHA Member Business Meeting	3-16-17	Approximately 20

#### 4. Awards and Scholarships

a. List members who were honored with an award from your Association and/or IAFP during 2017. Include name of award and qualification for award.

Award Name	Recipient Name	How did recipient qualify for award?
Professional of the Year	Rong Li	Members who made outstanding contributions during the previous year to the Environmental Health Field. (See attached information)

b. List scholarships awarded during 2017; include recipient and qualification for scholarship.

Scholarship Name/Amount	Recipient Name	How did recipient qualify for scholarship?
IEHA Scholarship/\$500.00	Tyler Gerkin	Recipients had to prepare and submit a short research paper outlining a current and emerging issue in public health (500 words or less). The scholarship winner will have the research paper printed in the IEHA Digest. Submit a copy of the paper in electronic format. AND Write a short summary of your professional goals and include your reasons for pursuing a career in environmental health and/or public health (200 words or less). (See attached information)

#### 5. Web Communication

Please be sure to keep the IAFP office on your mailing list for newsletters, E-mail and other

*communications to your general membership.*

Please provide your existing Affiliate's Web site address AND date last updated:  
At the time of submission of this document it is currently it is <http://ieha.wildapricot.org/page-254815> , but it will be changing to <http://ieha.starchapter.com/index.php> in 2018.

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Did you launch a new Affiliate Web site in 2017?    Yes     No X

## Attachment A (completion required)

### Association Officers List

Provide the contact information requested below for all current officers of your Association. **Please indicate if each officer is an IAFP Member (REMINDER: Your President and Delegate are required to be IAFP Members).** The information you provide is published on our Web site and in select membership materials. The information may be typed in the fields below, or sent to our office by E-mail, fax or regular mail.

Indicate the term dates (e.g., 2017–2018) for your current Executive Board: 2016-2018

Officer Title	Area C Rep
Name	Clark Philip
Address 1	
Address 2	
City, State ZIP Country	
Phone Number	
E-mail address	<a href="mailto:cfilip@phd2.idaho.gov">cfilip@phd2.idaho.gov</a>
IAFP Member? Y or N	N

Officer Title	President
Name	Tyler Fortunati
Address 1	1410 N. Hilton St.
Address 2	
City, State ZIP Country	Boise, ID 83706
Phone Number	208-373-0140
E-mail address	<a href="mailto:tyler.fortunati@deg.idaho.gov">tyler.fortunati@deg.idaho.gov</a>
IAFP Member? Y or N	Y

Officer Title	Past President
Name	Patrick Guzzle
Address 1	450 W State St, 4 <sup>th</sup> Floor
Address 2	
City, State ZIP Country	Boise, ID 83720
Phone Number	208-334-5936
E-mail address	Patrick.Guzzle@dhw.idaho.gov
IAFP Member? Y or N	N

Officer Title	Area C Rep
Name	Cassandra Lemmons
Address 1	1020 Washington St North
Address 2	
City, State ZIP Country	Twin Falls, ID 83301
Phone Number	208-737-5913
E-mail address	clemmons@phd5.idaho.gov
IAFP Member? Y or N	N

Officer Title	President Elect
Name	Sherise Jurries
Address 1	215 10 <sup>th</sup> St.
Address 2	
City, State ZIP Country	Lewiston, ID 83501
Phone Number	208-779-0355
E-mail address	sjurries@phd2.idaho.gov
IAFP Member? Y or N	N

Officer Title	Treasurer
Name	Kevin Blanch
Address 1	315 E 4 <sup>th</sup> S
Address 2	
City, State ZIP Country	Preston, ID 83263
Phone Number	208-852-0478
E-mail address	kblanch@siph.idaho.gov
IAFP Member? Y or N	N

Officer Title	Area B Rep
Name	Brigitta Gruenberg
Address 1	2659 S Weber Rapids Place
Address 2	
City, State ZIP Country	Meridian, ID 83642
Phone Number	208-870-2797
E-mail address	Brigitta.Gruenberg@ISDA.IDAHO.GOV
IAFP Member? Y or N	N

Before continuing, please check one of the boxes below:

CHECK HERE AND RETURN ELECTRONICALLY BY 2/13/18 IF YOUR AFFILIATE REQUESTS TO BE CONSIDERED FOR ONE OR MORE 2018 AFFILIATE AWARDS. (You are required to complete Attachment B.)

CHECK HERE IF YOUR AFFILIATE DOES NOT WANT TO BE CONSIDERED FOR A 2018 AFFILIATE AWARD. (You are done! It is not necessary to complete Attachment B.)

## IEHA Award

### Highlight Award Type:

- Professional of the Year (This is for members who have made outstanding contributions during the previous year to the Environmental Health field.)
- Lifetime Achievement Award (This award is for members who have made outstanding contributions to the profession and/or Association throughout the years. The candidate needs to have gone "above & beyond, and made special or significant contributions to the field.)
- Service Award (This award is for long-term members who are retiring.)

Candidates can be nominated by any member of IEHA and must be received by IEHA President no later than February 24, 2017.

To be eligible, the nominee must:

1. Be a member in good standing of IEHA.
2. Be actively engaged in the field of environmental health.
3. Have performed professional duties in the field of environmental health above and beyond the usual employment requirements so as to elevate the professional status of the Environmental Health Professional.

### Nomination

#### Name of Nominee:

Rong Li

#### Name(s) of member(s) in support of nomination:

Rick Hardy

#### Describe personal facts regarding the nominee:

Dr. Rong Li is an Environmental Scientist in the Idaho Department of Environmental Quality. He has a PhD in Chemistry from the University of Waterloo, Canada, a MSc in Atmospheric Physics from Chinese Academy of Sciences, and a BSc in Physics from Northwest Normal University. Dr. Li has conducted original research in several interconnected areas including air quality, climate prediction, environmental chemistry, the transport and fate of pollutants, agricultural and other ecosystems, biogeochemical cycling, and water resources. His research has resulted in three sole-author government reports and many lead-author peer reviewed papers in prestigious international journals in several disciplines, including *Atmospheric Chemistry and Physics*, *Climate Dynamics*, *Journal of Geophysical Research*, *Biogeosciences*, *Environmental Toxicology and Chemistry*, *Theoretical and Applied Climatology*, *Science of the Total Environment*, and *Environmental Research Letters*. His research experience in these interconnected areas has prepared him to make significant contributions toward understanding Idaho



airsheds and solving the complex air quality problems that affect our citizens in some areas. His professional activities include being an Associate Editor of Journal of Environmental Quality, jointly published by the Soil Science Society of America, the American Society of Agronomy, and the Crop Science Society of America, and serving as a reviewer of 12 international scientific journals.

**List of known formal education, include any special training:**

**EDUCATION**

**Ph.D. in Chemistry:** Department of Chemistry, University of Waterloo, Ontario, Canada, October 2006

**Dissertation:** Development of a 3-D multimedia regional fate and chemical transport modeling system for pesticides: modifying and coupling Models-3/CMAQ with PEM

**M. Sc. in Atmospheric Physics:** Lanzhou Institute of Plateau Atmospheric Physics (re-organized in 1999 as Cold and Arid Regions Environmental and Engineering Research Institute), Chinese Academy of Sciences, Lanzhou, China, September 1995

**Thesis:** Electrical structure of thunderclouds and characteristics of lightning flashes

**B. Sc. in Physics:** Department of Physics, Northwest Normal University, Lanzhou, China, June 1992

**Thesis:** Hydrophobic interaction of protein molecules

**List of employment, including any IEHA officer or committee responsibilities and any other professional organizational affiliations:**

July 2015 – present	<b>Environmental Scientist</b> , Idaho Department of Environmental Quality, Boise, Idaho, USA
August 2012 – June 2015	<b>Postdoctoral Fellow</b> , Department of Plants, Soils and Climate & Utah Climate Center, College of Agriculture and Applied Sciences, Utah State University, Logan, UT, USA
2011 – 2012	<b>Research Associate</b> , Collaboration between the University of Colorado & National Center for Atmospheric Research (NCAR), Boulder, Colorado, USA
2009 – 2010	<b>Postdoctoral Fellow</b> , Canadian Centre for Climate Modeling and Analysis, Victoria, B.C., Canada
2002 – 2009	<b>Research Assistant/Postdoctoral Fellow</b> , Waterloo Centre for Atmospheric Sciences, Department of Chemistry/Department of Earth and Environmental Sciences, University of Waterloo,

Waterloo, Ontario, Canada

2006 – 2007                      **Research Scientist**, Lakes Environmental Software, Waterloo, Ontario, Canada

1995 – 2001                      **Lecturer**, Department of Applied Physics, China University of Petroleum

#### **MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS**

- Idaho Environmental Health Association
- Society of Environmental Toxicology and Chemistry (SETAC)
- American Chemical Society (ACS)

**Describe contributions that the nominee has made to the field of environmental health. Examples would be: publications authored or co-authored by the candidate; significant scientific or applied research; accomplishments in the development or implementation of new, broader or improved concepts; procedures or techniques in the practice of environmental health.**

I am writing to nominate Dr. Rong Li for the Professional of the Year Award offered by Idaho Environmental Health Association. Dr. Li is a leading environmental scientist addressing some of our most difficult environmental issues. I heartily recommend him for the Professional of the Year Award.

Dr. Rong Li has published many lead author peer reviewed papers in prestigious international journals such as *Atmospheric Chemistry and Physics*, *Climate Dynamics*, *Journal of Geophysical Research*, *Biogeosciences*, *Environmental Toxicology and Chemistry*, *Theoretical and Applied Climatology*, *Science of the Total Environment*, and *Environmental Research Letters*. As you can see, Dr. Li's papers were published in several disciplines, clearly demonstrating his extraordinary capability to cross boundaries of research areas. vital for addressing increasingly complex environmental issues.

Dr. Li has made significant contributions during the previous year to the Environmental Health field, resulting in three agency reports and several papers in top international scientific journals. Dr. Li's multi-disciplinary expertise is being applied in regulatory applications ranging from the control of biomass burning in mountain communities to the identification of precursor sources of elevated photochemical aldehydes. One of the studies focused on air quality problems in the West Silver Valley (WSV) of Idaho. Measurements during years 2011-2013 show that the concentrations of fine particulate matter (PM<sub>2.5</sub>) in the WSV have exceeded the primary annual PM<sub>2.5</sub> National Ambient Air Quality Standard (NAAQS), and are thus harmful to public health. Consequently, the WSV was recently designated as a non-attainment area by the United States Environmental Protection Agency (EPA). Dr. Li conducted a study to identify major PM<sub>2.5</sub> sources; this is crucial for developing effective strategies to reduce the PM<sub>2.5</sub> concentrations in the WSV. The results show that biomass burning is the dominant source. The study also quantified the contributions on the WSV PM<sub>2.5</sub> concentrations from traffic, crustal dust, and secondary aerosols. Dr. Li reported this work as an oral presentation at the 2016 National Conference of the American Chemical Society, and submitted a lead author paper for publication in a top international journal: *Environmental*

*Pollution.* I am a co-author of this paper. The results of this paper represent the first report on the chemical composition and source apportionment of PM<sub>2.5</sub> in mountain valleys of northern Idaho, and have been used to guide effective strategies to reduce the PM<sub>2.5</sub> concentrations in the WSV. Moreover, this study provides detailed equations and methods used in PM<sub>2.5</sub> speciation, accounting for artifacts of the chemical analysis, Positive Matrix Factorization (PMF) modeling, and emission inventory development. The methodologies can be used for source apportionment of severe air pollution in other Idaho cities, and other non-attainment areas in the United States and in other regions with severe air pollution problems.

Based on his work in the previous year, Dr. Li is preparing another lead author paper, entitled "*Estimating Secondary Organic Aerosols for Regulatory Applications*," that will be submitted to an international journal for publication. Secondary Organic Aerosols (SOA) are formed in the atmosphere through chemical processes of volatile organic compounds (VOCs), including photolysis and reactions with hydroxyl (OH) radicals, nitrate radicals, and ozone, to produce low-volatility products that can form new particles or partition to existing particles. There are 10,000 to 100,000 different organic compounds that have been measured, and even more VOC species are unmeasured in the atmosphere. Furthermore, each VOC can undergo multiphase and multi-generation reactions to form more products. Developing methods to measure so many species is a key challenge, and tracking the complex chemical pathways to calculate SOA formation is another key challenge in atmospheric chemistry. Incorporating all these processes to air quality modeling systems lags behind; consequently, SOA simulations in air quality models are still in their infancy, and despite research progress in recent years, a realistically predictive tool of SOA formation does not exist. Regulatory studies involve legal issues, and accurately estimating SOA is particularly challenging. This effort has resulted in a useful method of estimating SOA for regulatory applications without requiring resource-intensive photochemical modeling. This method has been used for the West Silver Valley of Idaho, and is expected to be widely used by Idaho, other U.S. states.

Dr. Li is preparing another lead author paper, entitled "*Strengths and weakness of different source apportionment approaches for PM<sub>2.5</sub>: a comparison of PMF, CMB, AERMOD, and CMAQ models*," that will be submitted to an international journal for publication. In order to develop effective pollution control strategies, it is important to identify the sources of pollutants and to quantify their relative contributions. This paper compares the strengths and weakness of different source apportionment models including PMF, CMB, AERMOD, and CMAQ. This paper provides insights into how to select the right source apportionment approaches for specific issues. This work is very useful for pollution control in many places in Idaho, other states, and other countries.

In 2016, Dr. Li was selected as one of only three finalists in the Young Scientist Award Competition in the Agricultural and Food Chemistry Division (AGFD) of the American Chemical Society (ACS), and was invited to present his work at the 252nd ACS Meeting in Philadelphia, PA, August 13-17, 2016. This symposium was designed by the AGFD of the ACS to showcase the talents of outstanding young scientists in a range of research areas encompassed by the AGFD Division, including Agricultural and Environmental Chemistry. The competition takes place once a year and is open to all young scientists who have earned their last degree within 12 years. Given such a wide range of research areas and a huge number of scientists graduated in the previous 12 years, it is very difficult to become one of the top three finalists. This shows that Dr. Li has made outstanding contributions in the past year, and is recognized by his peers nationally in the areas of environmental science and environmental health.

Attached is a copy of Dr. Li's CV that provides more details of his publications and background. I trust you will find Dr. Li's work very impressive and his accomplishments in the past year worthy of the Professional of the Year Award offered by Idaho Environmental Health Association.

**Describe any other significant contributions the nominee has made to the public. This can include active support of civic or school activities or affiliations. Examples could be volunteer work for non-profit groups, schools, educational organizations, or programs that support physical or mental health.**

Rong has been an Associate Editor of Journal of Environmental Quality, jointly published by the Soil Science Society of America, the American Society of Agronomy, and the Crop Science Society of America. Dr. Li also serves as a reviewer of many international scientific journals. In addition, Dr. Li is Co-Chair of "Agricultural Atmospheric Emissions: Processes, Impacts & Management" Session at the 254th American Chemical Society (ACS) National Meeting. Dr. Li shares his expertise and contributes his time and commitment in these professional activities to help make these international journals and professional organizations successful.

*Please note that the committee does reserve the right to not grant the award during any year if, based on the submitted documentation, it should not be awarded to any nominee.*

*The award recipient will receive the nomination document as well as a plaque.*

## Curriculum Vitae

# Rong Li

1410 North Hilton,  
Boise ID 83706-1255  
Phone: (208) 919-6975  
E-mail: [lirong18@gmail.com](mailto:lirong18@gmail.com)  
[Rong.Li@deq.idaho.gov](mailto:Rong.Li@deq.idaho.gov)

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## EDUCATION

**Ph.D. in Chemistry:** Department of Chemistry, University of Waterloo, Ontario, Canada, October 2006

**Dissertation:** Development of a 3-D multimedia regional fate and chemical transport modeling system for pesticides: modifying and coupling Models-3/CMAQ with PEM

**M. Sc. in Atmospheric Physics:** Lanzhou Institute of Plateau Atmospheric Physics (re-organized in 1999 as Cold and Arid Regions Environmental and Engineering Research Institute), Chinese Academy of Sciences, Lanzhou, China, September 1995

**Thesis:** Electrical structure of thunderclouds and characteristics of lightning flashes

**B. Sc. in Physics:** Department of Physics, Northwest Normal University, Lanzhou, China, June 1992

**Thesis:** Hydrophobic interaction of protein molecules

## PROFESSIONAL EXPERIENCE

July 2015 – present	<b>Environmental Scientist</b> , Idaho Department of Environmental Quality, Boise, Idaho, USA
August 2012 – June 2015	<b>Postdoctoral Fellow</b> , Utah Climate Center & Department of Plants, Soils and Climate, College of Agriculture and Applied Sciences, Utah State University, Logan, UT, USA
2011 – 2012	<b>Research Associate</b> , Collaboration between the University of Colorado & National Center for Atmospheric Research (NCAR), Boulder, Colorado, USA
2009 – 2010	<b>Postdoctoral Fellow</b> , Canadian Centre for Climate Modeling and Analysis, Victoria, B.C., Canada
2002 – 2009	<b>Research Assistant/Postdoctoral Fellow</b> , Waterloo Centre for Atmospheric Sciences, Department of Chemistry/Department of Earth and Environmental Sciences, University of Waterloo, Waterloo, Ontario, Canada
2006 – 2007	<b>Research Scientist</b> , Lakes Environmental Software, Waterloo, Ontario, Canada
1995 – 2001	<b>Lecturer</b> , Department of Applied Physics, China University of Petroleum

## TEACHING EXPERIENCE

Teaching Assistant, Department of Chemistry, University of Waterloo, Canada, 2002 – 2005  
Lecturer, Department of Applied Physics, China University of Petroleum, China, 1995 – 2001

## PUBLICATIONS

### Government Reports

- Li R., 2016, Source Apportionment with Multiple Approaches including PMF, CMB, and AERMOD models for PM<sub>2.5</sub> in the West Silver Valley of Idaho, USA. Idaho Department of Environmental Quality.
- Li R., 2016, Secondary Organic Aerosols in the West Silver Valley of Idaho, USA. Idaho Department of Environmental Quality.
- Li R., 2016, Positive Matrix Factorization Receptor Modeling for PM<sub>2.5</sub> Pollution in the West Silver Valley of Idaho, USA. Idaho Department of Environmental Quality.

### Refereed Publications (Published)

- Cho C, R. Li, S.-Y. Wang, J.-H. Yoon, and R. R. Gillies, 2016, Anthropogenic footprint of climate change in the June 2013 northern India flood. *Climate Dynamics*, 46: 797-805. DOI 10.1007/s00382-015-2613-2
- Li R., S.-Y. Wang, and R. R. Gillies, 2015, A combined dynamical and statistical downscaling technique to reduce biases in climate projections: An example for winter precipitation and snowpack in the western United States. *Theoretical and Applied Climatology*, DOI: 10.1007/s00704-015-1415-0
- Li R., S.-Y. Wang, R. R. Gillies, B.M. Buckley, L.H. Truong, and C. Cho, 2015, Decadal oscillation of autumn precipitation in central Vietnam modulated by the East Pacific-North Pacific (EP-NP) teleconnection. *Environmental Research Letters*, 10 024008. DOI: 10.1088/1748-9326/10/2/024008.
- Li R., J. Jin, S.-Y. Wang, and R. R. Gillies, 2014, Significant impacts of radiation physics in the Weather Research and Forecasting model on the precipitation and dynamics of the West African Monsoon. *Climate Dynamics*, 44[5-6], pp. 1583-1594, DOI: 10.1007/s00382-014-2294-2
- Li R., and J. Jin, 2013, Modeling of temporal patterns and sources of atmospherically transported and deposited pesticides in ecosystems of concern: a case study of toxaphene in the Great Lakes. *Journal of Geophysical Research*, 118(20), 11863–11874, doi: 10.1002/jgrd.50777
- Li R., and J. Jin, 2013, Model predictions of chemical degradation of toxaphene in the atmosphere over North America. *Environmental Toxicology and Chemistry*, 32(12), 2663–2671, doi: 10.1002/etc.2344
- Li R., C. Wiedinmyer, and M. P Hannigan, 2013, Contrast and correlations between coarse and fine particulate matter in the United States, *Science of the Total Environment*, 456-457, 346-358. <http://dx.doi.org/10.1016/j.scitotenv.2013.03.041>
- Li R., C. Wiedinmyer, K. R. Baker, and M. P Hannigan, 2013, Characterization of coarse particulate matter in the western United States: a comparison between observation and modeling. *Atmospheric Chemistry and Physics*, 13, 1311-1327, doi:10.5194/acp-13-1311-2013

- Wang S.Y., P. Promchote, L. H. Truong, B. Buckley, R. Li, R. Gillies, R. N. Q. Trung, B. T. Guan, and T. M. Ton, 2015, Changes in the autumn precipitation and tropical cyclone activity over Central Vietnam. *Vietnam Journal of Earth Sciences*, 36, 1-7
- Li R., 2012. Modeling of pesticide emissions from agricultural ecosystems. *Journal of Geophysical Research*, D07301, doi:10.1029/2011JD017306
- Li R., and V. K. Arora, 2012, Effect of mosaic representation of vegetation in land surface schemes on simulated energy and carbon balances, *Biogeosciences*, 9, 593-605, doi:10.5194/bg-9-593-2012
- Li R., M. T. Scholtz, F. Yang, and J. J. Sloan, 2011a, A multimedia fate and chemical transport modeling system for pesticides: I. Model development and implementation. *Environmental Research Letters*, 6, 034029, doi:10.1088/1748-9326/6/3/034029
- Li R., M. T. Scholtz, F. Yang, and J. J. Sloan, 2011b, A multimedia fate and chemical transport modeling system for pesticides: II. Model evaluation. *Environmental Research Letters*, 6, 034030, doi:10.1088/1748-9326/6/3/034030
- Li R., and C. Wang, 2001, Disparity of charge structure and lightning characteristics in different thunderclouds in Gansu area. *High Voltage Engineering*. Vol. 27, No.2, 74
- Li R., C. Wang, and G. Lu, 1999, Characteristics of cloud-to-ground flashes in thunderstorms with different charge structures. *Chinese Journal of Geophysics*. Vol.42, supplement, 57
- Li R., and C. Wang, 1998, Two types of thunderclouds with different charge structures in China. *High Voltage Engineering*. Vol. 24, No.1, 81
- Li R., and K. Zhou, 2002, Experimental research on dust-raising property of polypropionamide before and after a special treatment. *Oil-GasField Surface Engineering*. Vol.21, No.1, 103
- Lu, G. and R. Li, 1999, Monte Carlo computer simulation and its application in fluid theory. *Journal of China University of Petroleum*. Vol.23, No.3, 112
- Li, R., K. Zhou, and G. Lu. Discussion of uncertainty and significant figures of measurement by a meterstick. *Engineering Physics*, 1998, supplement, 6
- Li, R., J. Song, and K. Zhou, 2001, The key for education reform in physics experiments is faculty development. *Journal of Liaocheng Normal College*. (Education reform) special issue
- Song, J., K. Zhou, and R. Li, 1998, An investigation of the foundations of students' physics experiments in engineering universities. The Proceedings of 6<sup>th</sup> East China Conference on Engineering Physics Education.

## Refereed Publications (Under review)

- Li R., et al., Chemical characterization and source apportionment of PM<sub>2.5</sub> in a Rocky Mountain valley, USA. *Environmental Pollution* (Under review)
- Li R., S.-Y. Wang, R. R. Gillies, and C. Cho, Regional trends in pre-monsoon rainfall over Vietnam and CCSM4 attribution. *Climate Dynamics* (Under review)

## Refereed Publications (In preparation)

- Li R., et al., Strengths and weaknesses of different source apportionment approaches: a comparison of PMF, CMB, AERMOD, and CMAQ models. *Atmospheric Chemistry and Physics* (In preparation)
- Li R., et al, Estimating secondary organic aerosols (SOA) for regulatory applications. *Journal of Environmental Quality* (In preparation)

## Conference and Invited Presentations, Posters, and Abstracts

- Li R., 2016: Integrating traditional disciplines to develop novel technologies for agricultural and environmental issues. Finalist Presentation at Young Scientist Award Symposium of 252nd American Chemical Society National Meeting, Philadelphia, PA, USA, August 21-25, 2016
- Li R., R. Kotchenruther, and R. Hardy, 2016: Identifying sources of high PM<sub>2.5</sub> concentrations in the West Silver Valley of Idaho, USA. 252nd American Chemical Society National Meeting, Philadelphia, PA, USA, August 21-25, 2016
- Simpson J., T. Jobson, and R. Li, 2016: Lewiston-Clarkston Valley Formaldehyde Study. Northwest International Air Quality Environmental Science and Technology Consortium (NW-AIRQUEST) 2016 Annual Meeting, Pullman, WA, USA, June 15-17
- Li R., 2016: Linking traditional disciplines to address environmental issues. Northwest International Air Quality Environmental Science and Technology Consortium (NW-AIRQUEST) 2016 Annual Meeting, Pullman, WA, USA, June 15-17
- Li R., 2015: Quantifying the Chemistry, Transport, and Fate of Pesticides in the Environment: Soil-Air-Water Interactions. Invited talk at the IEEE Conference on Technologies for Sustainability, Ogden, Utah, USA, July 30-August 1
- Li R., S.-Y. Wang, and R. R. Gillies, 2015: A Combined Dynamical and Statistical Technique for Producing Regional Climate Predictions. Invited talk at the IEEE Conference on Technologies for Sustainability, Ogden, Utah, USA, July 30-Aug 1 2015
- Li R., 2014: Quantifying atmospheric transport and deposition of contaminants into water resources, The Spring Runoff Conference, Logan, UT, USA. April 1-2
- Li R., 2014: Characterization of atmospheric particles in the United States, The Spring Runoff Conference, Logan, UT, USA. April 1-2
- Li R., 2014: A modeling system for studying climate-ecosystem interactions, The Spring Runoff Conference, Logan, UT, USA. April 1-2
- Li R., S.-Y. Wang, R. R. Gillies, and J. Jin, 2014: An effective downscaling technique for winter precipitation and snowpack in the western United States, The Spring Runoff Conference, Logan, UT, USA. April 1-2
- Li R., J. Jin, S.-Y. Wang, and R. R. Gillies, 2013: Improved prediction of precipitation and snowpack using a proper combination of dynamical and statistical techniques. USU-IAP workshop on high-elevation climate change and variability, Logan, UT, USA, July 25
- Li R., 2013: Incorporating persistent organic pollutants (POPs) into comprehensive regional air quality models. 14th Annual WRF Users' Workshop, Boulder, CO, USA, June 2 -28
- Li R., J. Jin, S.-Y. Wang, and R. R. Gillies, 2013: An effective approach to improve regional climate predictions using a proper combination of dynamical and statistical techniques. 14th Annual WRF Users' Workshop, Boulder, CO, USA, June 24-28,
- Li R., J. Jin, S.-Y. Wang, and R. R. Gillies, 2013: Improved modeling of precipitation in the Western United States using combined dynamical and statistical downscaling methods. 11th Annual NOAA Climate Prediction Applications Science Workshop, Logan, UT, USA, April 23-25
- Li R., J. Jin, S.-Y. Wang, and R. R. Gillies, 2013: Regional climate modeling of the West African



- monsoon using coupled weather research and forecasting and community land models (WRF-CLM). 11th Annual NOAA Climate Prediction Applications Science Workshop, Logan, UT, USA, April 23-25
- Li R., J. Jin, S.-Y. Wang, and R. R. Gillies, 2013: Regional Climate Modeling of the West African Monsoon Using the Weather Research and Forecasting Model, The Spring Runoff Conference, Logan, UT, USA, April 9-10
- Li R., 2011: Modeling of pesticides and their chemical transformation products. 242nd American Chemical Society (ACS) National Meeting, Denver, CO, USA, August 28-September 1
- Li R., M. P. Hannigan, C. Wiedinmyer, K. Baker, 2011: Regional comparative study of observed and CMAQ modeled coarse particulate matter. 242nd American Chemical Society (ACS) National Meeting, Denver, CO, USA, August 28-September 1
- Wiedinmyer C., R. Li, M. Hannigan, K. Baker, A. G. Hallar, 2011: Coarse particulate matter in the atmosphere: what do we really know? 2011 American Geophysical Union Fall Meeting, San Francisco, California., USA, December 5-9
- Li R. and V.K. Arora, 2010: The impacts of mosaic and aggregate representation of vegetation in land surface schemes on energy and carbon balances. 44th CMOS (Canadian Meteorological and Oceanographic Society) Congress. 36th Annual Scientific Meeting of CGU (Canadian Geophysical Union), Ottawa, Ontario, Canada, May 31-June 4
- Li R., 2010: The coupling of CTEM with CLASS3.4: how the mosaic representation of vegetation affects the carbon balance. University of Victoria, Victoria, BC, Canada, March 25
- Li R., 2010: The coupling of CTEM with CLASS3.4: Preliminary results and problems. Invited Talk. The Université du Québec à Montréal (UQAM), Montreal, Quebec, Canada, March 19
- Li R., T. Scholtz, F. Yang, and J. J. Sloan, 2009: A Regional Multimedia Modeling System for the Simulation of the Long Range Transport, Chemistry and Deposition of Semi-Volatile Pollutants. 30<sup>th</sup> NATO/SPS International Technical Meeting on Air Pollution Modeling and its Application. San Francisco, California, USA, May 18-22
- Li R., F. Yang, T. Scholtz and J.J. Sloan, 2007: Emission, Chemistry, Transport and Deposition of Pesticides in North America. The 10th International Conference on Atmospheric Sciences and Applications to Air Quality (ASAAQ 2007). Hongkong, China, May 14-16
- Li R., T. Scholtz, F. Yang, and J. J. Sloan, 2006: A 3-D Eulerian multimedia fate and chemical transport regional modeling system for pesticides. 40<sup>th</sup> CMOS Congress, Toronto, Ontario, Canada, May 29-June 1
- Li R., T. Scholtz, F. Yang, F. Meng, and J. J. Sloan, 2004: Modeling the environmental fate of pesticides in both the atmosphere and soil. Border Air Quality Symposium, Waterloo, Ontario, Canada, October 15
- Li R., T. Scholtz and J. J. Sloan, 2004: Modeling the emission, transport, transformation, and deposition of pesticides in North America. Graduate Student Research Conference, Waterloo, Ontario, Canada, October 2
- Li R and C. Wang, 2001: Regional differences of thunderstorms and the strategy for lightning protection. Annual Research Conference of China University of Petroleum, December 10
- Li R. 2001: Electrical structure of thunderclouds and the processes of cloud-to-ground lightning.

Research Conference of Department of Applied Physics, China University of Petroleum. October 10.

Li R and K. Zhou, 1998: Uncertainty and significant figure of measurement by a meterstick. 1998 National Conference on Engineering Physics, Huangshan, China, August 2

## REVIEWER FOR JOURNALS

Scientific Reports - Nature  
Environmental Science & Technology  
Chemosphere  
Journal of Environmental Quality  
Journal of Hydrometeorology  
Climate Dynamics  
International Journal of Climatology  
Atmospheric Chemistry and Physics  
Journal of Climate  
Climate  
Theoretical and Applied Climatology  
Advances in Atmospheric Sciences

## EDITOR AND COMMITTEE MEMBER

- **Associate Editor** of an international journal the *Journal of Environmental Quality*, jointly published by **American Society of Agronomy, the Soil Science Society of America, and the Crop Science Society of America.**
- **Co-Chair** of "Agricultural Atmospheric Emissions: Processes, Impacts & Management" Session at the 254th American Chemical Society (ACS) National Meeting.
- Member of the **North America Meetings Committee** of the **Society of Environmental Toxicology and Chemistry (SETAC).**

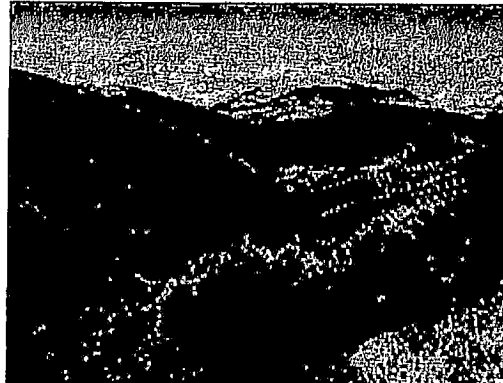
## MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

- Idaho Environmental Health Association
- Society of Environmental Toxicology and Chemistry (SETAC)
- American Chemical Society (ACS)

## **Idaho Environmental Health Association**

**A nonprofit professional and educational organization for individuals who work to control environmental health hazards and promote healthful environmental conditions**

# **Idaho Environmental Health Association (IEHA) Student Scholarship (\$500)**



### **Who can apply?**

Any junior or senior undergraduate who is a declared major in Environmental Health or Environmental Science at a university in Idaho

### **When will the scholarship be awarded?**

The scholarship will be awarded at the banquet lunch held during the IEHA annual conference to be held in the Student Union at BSU on March 16<sup>th</sup>, 2017.

*Please find the scholarship application form on the following page!*



## Idaho Environmental Health Association

### \$500 Scholarship Application for 2017

1. Name (last, first, middle initial): Gerken, Tyler, J
2. Street Address: 1919 S Vista Ave  
City: Boise State: ID Zip: 83705  
Phone: (808) 333-6541 E-mail address: tylergerken@u.boisestate.edu
3. Current Major and School: Public Health: Environmental & Occupational Health; Boise State University

Anticipated Date of Graduation: Fall 2018

Do you have any other degrees?  Yes  No

If so, please list them with School and Year of Graduation: N/a

4. Do you have any work experience in environmental health?  Yes  No

If so, please give a brief overview of your experience was, who you worked for, and dates of experience.

Within the last month (02-16-17-present), I began working with Tap Water Watch, a consulting company who specializes in testing for lead in community water distribution systems. As a business developer, I have started the process of consulting with school principals and/or superintendents throughout the state of Idaho to see if they would like their potable drinking water sources testing for lead. As a water consultant, I will sample schools if/when they become available to me.

5. Please write a short summary of your professional goals and include your reasons for pursuing a career in environmental health and/or public health (*no more than 150 words*).

Born and raised on the Big Island of Hawai'i previously studying environmental science, I transferred to Boise State University (BSU) to study Public Health with an emphasis in environmental and occupational health to further develop my academic interests to align them with my future career aspirations. Few environmental threats on Big Island such as brown water from tropical storm flooding and a combination of the absence of trade winds with sulfur dioxide plumes emitted from Kilauea volcano leading to respiratory complications peaked my interest in environmental health. My environmental chemistry professor repeatedly told me to join the Public Health Service. Graduating from BSU allows me to become a select group of students who qualify to join the Commissioned Corps of the United States Public Health Service. Immediately upon graduating with my bachelors, I plan on attending the University of Washington to obtain a Master of Science in Environmental Health.

6. Please write a short summary of what you believe to be a current issue in environmental or public health in Idaho and what your view is on the subject (*no more than 500 words*).

The vision of having swimmable and fishable waters of the United States was enacted with the Clean Water Act of 1972 while the Safe Drinking Water Act of 1974 was adopted to regulate community and non-community water systems. In 1969, the Cuyahoga river in Cleveland, Ohio caught on fire from excessive industrial pollution assisting in acting as a catalyst to later pass the Clean Water Act. Without proper regulation and enforcement of the water of the United States, excessive nutrient pollution (to include phosphates, nitrates, metals, etc) can lead to microbial growth cascading into "dead zones" of water deprived of oxygen leading to death of aquatic organisms. These non-point and point sources are key areas to implement best management practices to reduce the amount of pollution loading entering a local river and estuary. With the Safe Drinking Water Act, the role of local governments was expanded to monitor and govern effective practices to protect our local surface and groundwater sources so they are safe to drink and protected by pollution, bacteria (camphylobacter, shigella, legionella), parasites (cryptosporidium, giardia) and viruses (Hep A, Norovirus).

One of the more effective ways of managing our vast waters within America is by public outreach of information to educate, inform and implement state policies that are progressive in ensuring water quality source management is a high priority. Idaho is one of a few states which have a law that limits state agency authority to adopt environmental rules and regulations more stringent than federal law requires; Meanwhile, there are still rivers and watersheds which require work to

## **Idaho Environmental Health Association**

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be done to minimize pollutant loading. With non-point sources, farming practices can contribute to nutrient runoff from excessive fertilizer. A tighter relationship between the department of agriculture and farmers could result in the adoption better farming and management practices to reduce pollutant runoff into groundwater and adjacent rivers. With active surveillance, some of these bacterial diseases are not required to be reported. By making a revision to the health department policy alongside educating providers and staff members to report these water-borne diseases might assist with pinpointing outbreaks in the community.

7. Please provide a copy of your college transcripts from the school which you are currently enrolled (unofficial transcripts are acceptable).

Name of Applicant: Tyler Gerken Date: 3/6/17

*Deadline for applications is March 6, 2017*

Please submit applications to:

Jami Delmore  
SWDH – Environmental Health  
13307 Miami Lane  
Caldwell ID 83607

Applications may be submitted electronically to: [Jami.Delmore@phd3.idaho.gov](mailto:Jami.Delmore@phd3.idaho.gov)