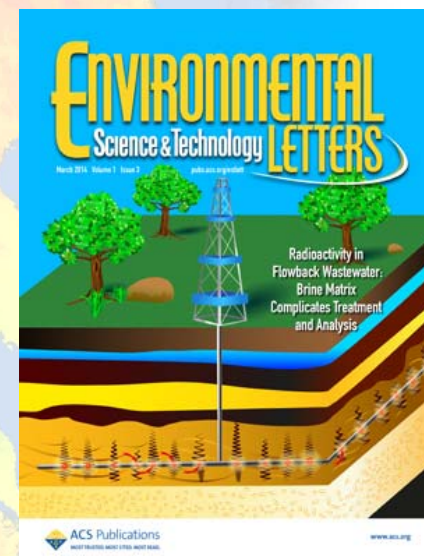
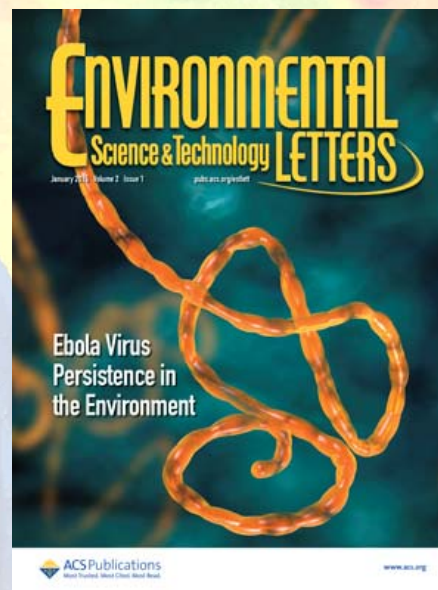
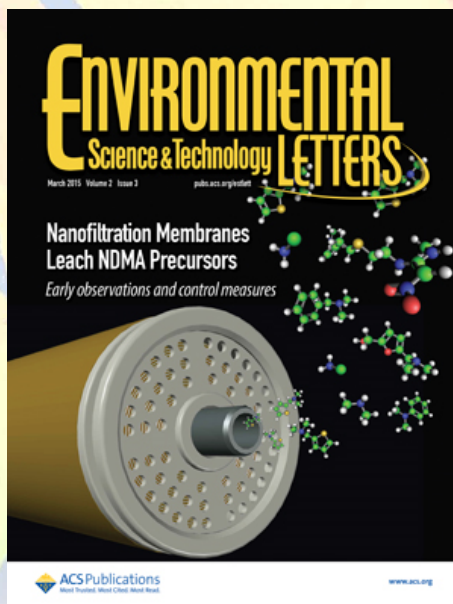
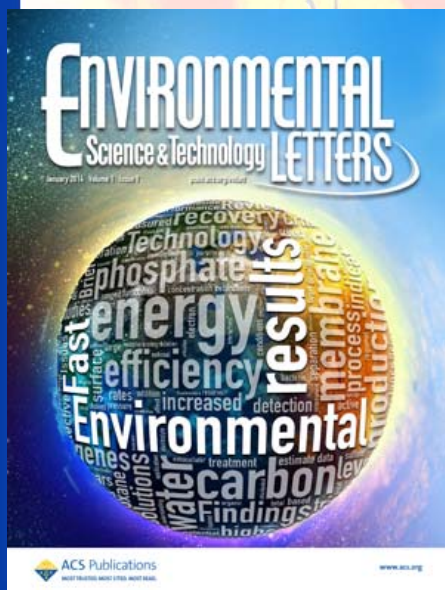


# Publishing Your Best Research in *Environmental Science & Technology* and *Environmental Science & Technology Letters*

Bruce E Logan  
Editor, *ES&T Letters*



ACS Publications  
MOST TRUSTED. MOST CITED. MOST READ.

ENVIRONMENTAL  
Science & Technology LETTERS

ENVIRONMENTAL  
Science & Technology

# Introduction: Bruce Logan



**PennState**

- Professor at Penn State University (since 1997)
  - Previously at University of Arizona (1986-1997)
  - PhD at UC Berkeley (1986)
- Research topics and main collaborators (currently)
  - Microbial fuel cells and different types of microbial electrochemical technologies (many collaborators)
  - Salinity Gradient Energy: Chris Gorski (Penn State)
  - Desalination: Chris Gorski, Manish Kumar, Mike Hickner (PSU); Zhiping Lai, Pascal Saikaly (KAUST)
- Editor of *Environmental Science & Technology Letters*
  - Former Associate Editor of *ES&T*
- Publishing experience?
  - >460 journal papers, 3 books
  - >56,000 citations, h-Index=117 (Google Scholar)

# Purpose of this Visit & Presentation

- Build community
  - Connect with our best authors, reviewers, award winners, AEs and EABs.
- Give a presentation: “Publishing Your Best Research in Environmental Science & Technology and Environmental Science & Technology Letters”
  - **Establish:** ACS journals are technical editors with environmental expertise, not just manuscript “handlers” that may be scientists in another field.
  - **Explain:** The editorial workings, a “behind the scenes” meeting with the *ES&T Letters* Editor and former *ES&T* associate editor. Explain how we conduct the manuscript review process.
  - **Explain:** *ES&T* versus *ES&T Letters*: differences, similarities
  - **Impact Factor (IF):** Most people know it when they see it, but have no idea on how it is calculated: Explain the IF (and how some other journals are gaming the system)
  - **Quality:** Suggest ways for authors to improve quality of submissions (and discourage a “gambling” approach on submissions)
  - **Quality:** Suggest to audience ways to improve the quality of their reviews & Let reviewers know we give them a score.



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David Sedlak (UC Berkeley)  
*Editor-in-Chief*

Highly cited: 127,061 citations annually  
2016 Impact Factor: 6.20

## ES&T Offers:

- Highest Editorial Standards
- Original Research papers, Reviews, Viewpoints, Perspectives
- Global readership
- Broad Media Coverage
- Unique *science/policy* scope

### Journal Sections:

- Characterization of Natural and Affected Environments
- Ecotoxicology and Human Environmental Health
- Energy and Environment
- Environmental Measurements Methods
- Environmental Modeling
- Environmental Processes
- Remediation and Control Technologies
- Sustainability Engineering and Green Chemistry

Submit your manuscript at [pubs.acs.org/est](https://pubs.acs.org/est)



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LETTERS

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# ES&T Associate Editors

**Editor-in-Chief:** David Sedlak, UC Berkeley

## North America

**Pedro Alvarez**

Rice University

**John Crittenden**

Georgia Tech

**Miriam Diamond**

University of Toronto

**Menachem Elimelech**

Yale University

**Jennifer Field**

Oregon State University

**Jorge Gardea-Torresdey**

University of Texas at El Paso

**Daniel Giammar**

Washington University in St. Louis

**Ronald Hites**

Indiana University

**Keri Hornbuckle**

University of Iowa

**Amy Pruden**

Virginia Tech

**Susan Richardson**

University of South Carolina

**Lutgarde Ruskin**

University of Michigan

**Dan Schlenk**

UC Riverside

**Timothy Strathmann**

Colorado School of Mines

**Barbara Turpin**

Rutgers University

**Richard Valentine**

University of Iowa

**Julie Zimmerman**

Yale University

## Asia-Pacific

**Wonyong Choi**

POSTECH

**Guibin Jiang**

Chinese Academy of Sciences

**Xiang-dong Li**

The Hong Kong Polytechnic University

**Shu Tao**

Peking University

**David Waite**

University of New South Wales

## Europe

**Beate Escher**

Helmholtz Centre for Environmental Research

**Bert Hamelers**

Wetsus

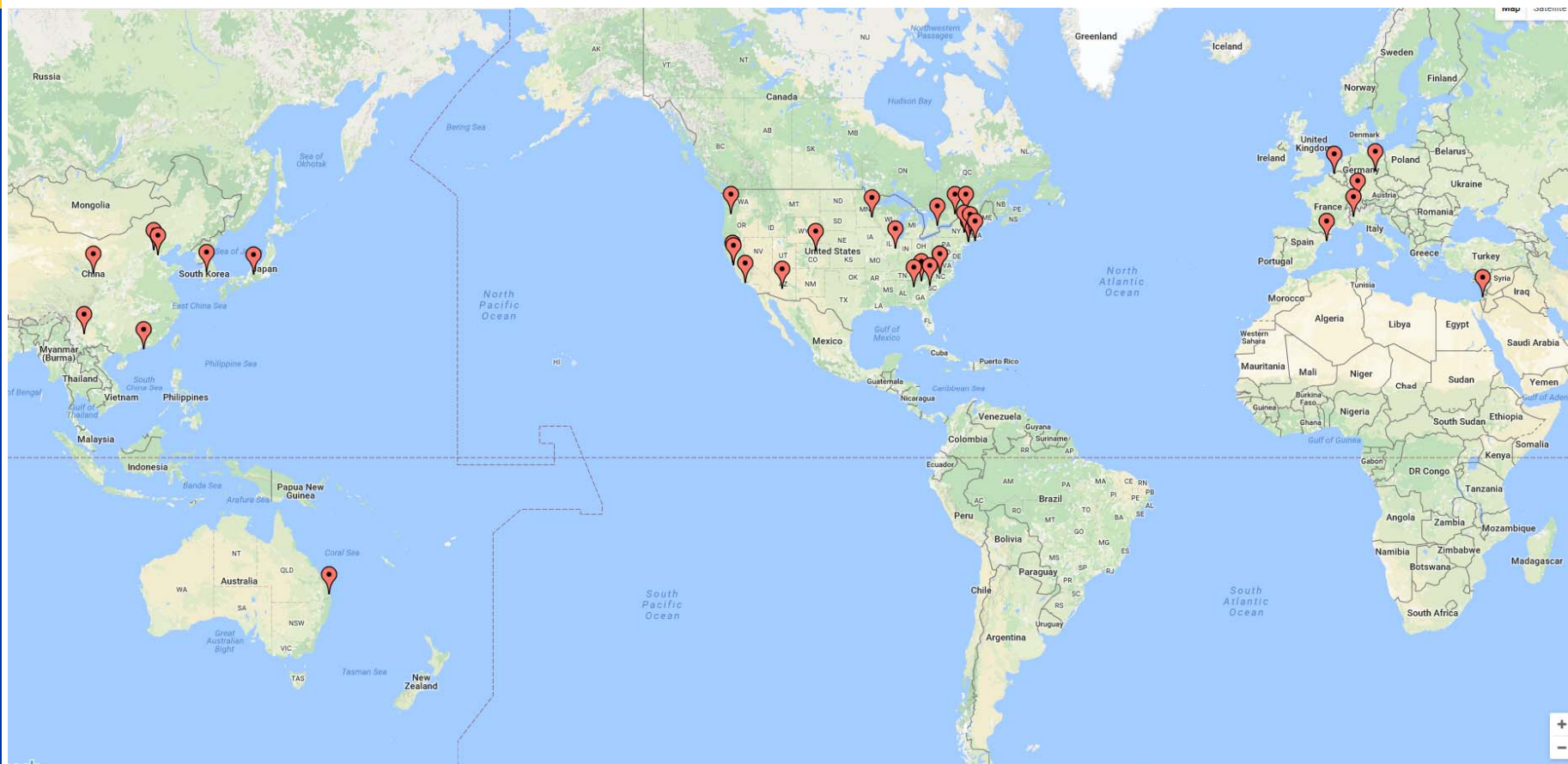
**Thomas Hofstetter**

Eawag

**Martin Scheringer**

Recetox, Masaryk University

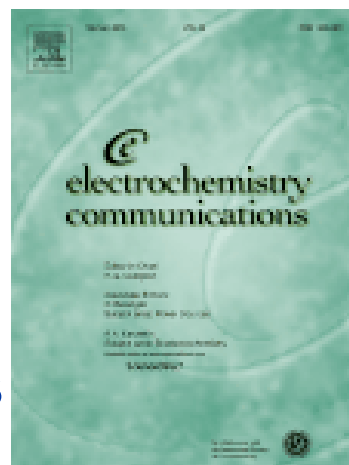
# ES&T Advisory Board



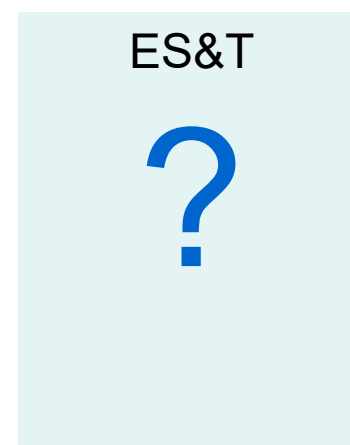
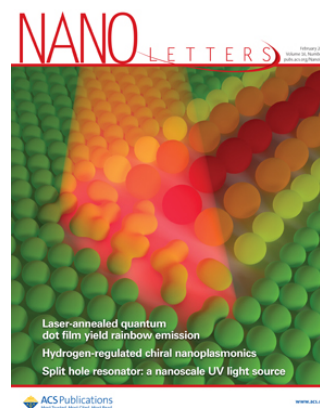
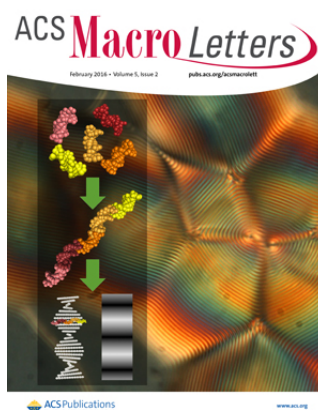
📍 Editorial Advisory Board, 49% International

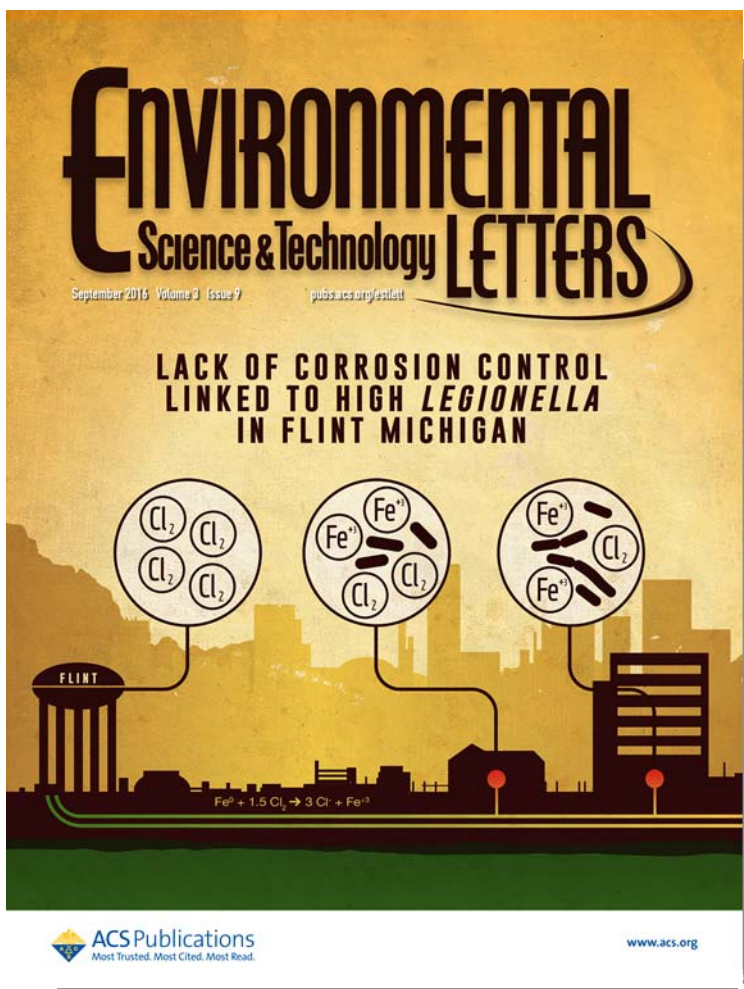
# Changes in journal article length over the years

- *ES&T*
  - Originally – no limit
  - Changed to 7000 word maximum (includes 300 words per figure)
- More “communication” and Letters journals emerged during the past decade



- *ACS Macro Letters*
- *Nanoletters*





Bruce Logan (Penn State), *Editor*  
David Sedlak (UC Berkeley), *EIC*

Established 2014  
2016 Impact Factor: 5.31

## ES&T Letters Offers:

- Very Rapid Publication: ~4 wks submit → publication
- Shorter Articles & Mini-reviews
- Highest Editorial Standards
- Global readership
- Broad Media Coverage

### Journal Sections:

- Characterization of Natural and Affected Environments
- Ecotoxicology and Human Environmental Health
- Energy and Environment
- Environmental Aspects of Nanotechnology
- Environmental Measurements Methods
- Environmental Processes
- Novel Remediation and Control Technologies

Submit at <http://pubs.acs.org/journal/estlcv>



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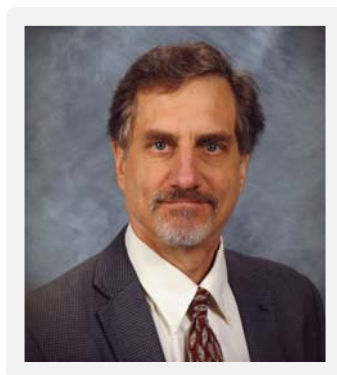
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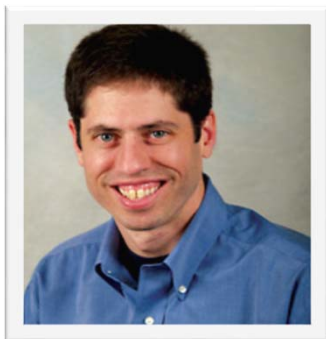




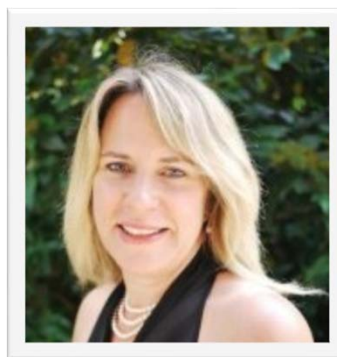
# ES&T Letters Editors



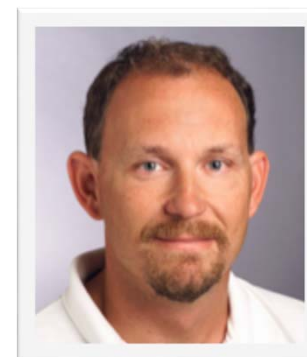
**Editor**  
**Bruce Logan**  
Penn State University



**Associate Editor**  
**Bill Arnold**  
University of Minnesota



**Associate Editor**  
**Staci Simonich**  
Oregon State University



**Associate Editor**  
**Daniel Schlenk**  
UC Riverside



## ***Our Editorial Advisory Board (EAB): Selected from our top Scientists and Reviewers***

- Alexandria Boehm, Stanford
- William (Bill) Burgos, Penn State
- Alison Cupples, Michigan State
- Menachem Elimelech, Yale
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- David Volz, UC Riverside
- Jason White, Connecticut Agricultural Experiment Station
- Charles Wong, University of Winnipeg
- Dongqiang Zhu, Peking (Nanjing) University

## Two Journals Sharing One Name

A little over three years ago, ACS Publications launched *Environmental Science & Technology Letters* (*ES&T Letters*) as a new environmental journal to enable rapid publication of research communications on environmental topics. While many journals publish both short communications and full papers together, *Environmental Science & Technology* (*ES&T*) had not had such a section since 1995 (called at that time, short correspondences). Over the past two decades, the information technology revolution has made it possible to quickly review, edit, and post research findings. The success and growth of rapid communications journals in other fields suggested that such a venue was needed in our field. Rather than just add a new section to *ES&T*, we created a new journal.

theory or could open up an entirely new area of inquiry. At its best, the ideas reported in a Letter will cause at least one research team somewhere in the world to reconsider their next set of experiments.

Urgency to researchers is not the only way to satisfy our criterion. Research on matters affecting public health and the environment is especially relevant to employees of government agencies, industries, and nongovernmental organizations as well as journalists because they are often in a position to do something about them. When a researcher discovers an unexpected source of pollution, rapid communication in a Letter not only assures that they will receive credit for the finding but also is often an ethical imperative. For example,

Joint Editorial: in *ES&T* and *ES&T Letters*

David L. Sedlak & Bruce E. Logan

Online: February 18, 2017; Published: March Issues

# Papers Differ in Length

- *ES&T Letters*
  - **Letters: 3000 words** (Figures & Tables = 200 words)
  - Brief Reviews: 5,000 words
  - Correspondence
- *ES&T*
  - **Research Articles: 7000 words** (Figures & Tables = 300 or 600 words)
  - Critical Reviews: 10,000 words
  - Features
  - Perspectives
  - Correspondence

# ES&T vs ES&T Letters

- **Novelty**
  - Both journals require studies that are novel
- **ES&T Letters: Requires Urgent publication**
  - *Urgent is defined as something that “Requires immediate attention”*
- **Examples**
  - Upends a long-held theory
  - Leads to a new line of inquiry
  - Results in researchers reconsidering the next set of experiments in light of new findings
  - Reports discovery of a new source of pollution
  - Provides information that needs to be rapidly conveyed to scientists or the public

**URGENT**

# ES&T vs ES&T Letters

- **Time until decision to Accept** (not including triaged manuscripts)
  - *ES&T*: 5 weeks to first decision, ~15 weeks to accept decision
  - *ES&T Letters*: ~1.6 weeks to first decision (no major revisions); 3.5 weeks to accept decision
- **Reviewers**
  - *ES&T*: Recruited from community
  - *ES&T Letters*: Uses the Editorial Advisory Board (EAB) as Reviewers (as needed), plus community
    - >700 reviewers in total for ES&T Letters
    - 454 reviewers had a single review (>65%)
    - Up to 18 reviews per person

# AWARDS

## Environmental Science & Technology Letters Presents the 2016 Excellence in Review Awards

In recognition of the contribution that reviewers provide to the scientific community and the publication of scholarly research, I and the *Environmental Science & Technology Letters* (ES&T Letters) Associate Editors are proud to recognize eight

Annemiek Ter Heijne  
Department of Agrotechnology and Food Sciences,  
Wageningen University, Wageningen, The Netherlands  
<https://sites.google.com/site/annemiekterheijne/>

- Reviewer awards
  - Announced in Nov. 2016 issue
  - 8 recognized (4 EAB members)
- Best papers
  - Not awarded by category
  - No limit on number, but... 4 in 2016 out of 74 published
- James J Morgan Early Career Award (with ES&T)
  - Meagan Mauter, Carnegie Mellon University



## *ES&T Letters*, Reviewer Awards, in 2016

- Alexandria Boehm, Stanford University
- Brian Chaplin, University of Illinois, Chicago
- Barbara Ervens, National Oceanic and Atmospheric Administration
- Falk Harnisch, Helmholtz-Centre for Environmental Research-UFZ
- Heileen Hsu-Kim, Duke University
- Anh Pham, Carleton University
- Annemiek Ter Heijne, Wageningen University
- David Volz, UC Riverside

## ES&T Letters, Best Papers Published in 2016

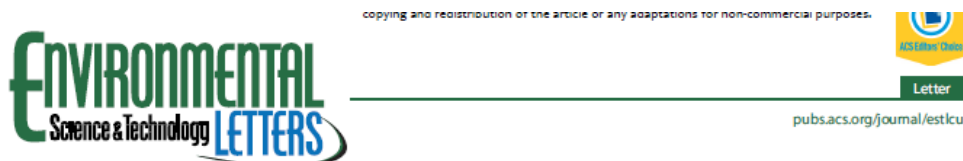
- William D. Bonificio and David R. Clarke
  - *Rare-Earth Separation Using Bacteria*
- Mei Sun, Elisa Arevalo, Mark Strynar, Andrew Lindstrom, Michael Richardson, Ben Kearns, Adam Pickett, Chris Smith, and Detlef Knappe
  - *Legacy and Emerging Perfluoroalkyl Substances Are Important Drinking Water Contaminants in the Cape Fear River Watershed of North Carolina*
- Kam W. Tang, Daniel F. McGinnis, Danny Ionescu, and Hans-Peter Grossart
  - *Methane Production in Oxidic Lake Waters Potentially Increases Aquatic Methane Flux to Air*
- Junfeng Wang, Timothy B. Onasch, Xinlei Ge, Sonya Collier, Qi Zhang, Yele Sun, Huan Yu, Mindong Chen, André S.H. Prévôt, and Douglas R. Worsnop
  - *Observation of Fullerene Soot in Eastern China*

# What makes ES&T and ES&T Letters the best journals in the field?

- Associate Editors that are recognized top scientists
  - Have expertise in environmental science and engineering
  - Selected to handle your manuscript due to specialized knowledge in your manuscript topic
- Rapid handling of the manuscript, quality of submission and review process
- Quality reviews
  - Associate Editors endeavor to select great reviewers: can evaluate the science & are prompt turning in reviews
- Broad readership
  - Excellent dissemination of your findings so that people can find and cite your work!
  - Media Attention!
  - High number of citations over time
- Impact factor (IF)?

# Media Attention to ES&T Letters papers

- As a measure of success, consider media and downloads



Detection of Poly- and Perfluoroalkyl Substances (PFASs) in U.S. Drinking Water Linked to Industrial Sites, Military Fire Training Areas, and Wastewater Treatment Plants

Xindi C. Hu,<sup>\*,†,‡</sup> David Q. Andrews,<sup>§</sup> Andrew B. Lindstrom,<sup>||</sup> Thomas A. Bruton,<sup>⊥</sup> Laurel A. Schaider,<sup>#</sup> Philippe Grandjean,<sup>†</sup> Rainer Lohmann,<sup>@</sup> Courtney C. Carignan,<sup>†</sup> Arlene Blum,<sup>⊥,∇</sup> Simona A. Balan,<sup>•</sup> Christopher P. Higgins,<sup>○</sup> and Elsie M. Sunderland<sup>†,‡</sup>

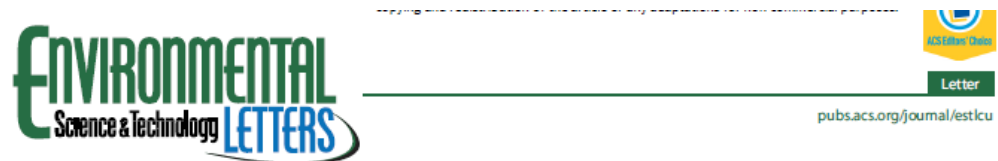
22,775 downloads  
105 news stories



Fluorinated Compounds in U.S. Fast Food Packaging

Laurel A. Schaider,<sup>\*,†,‡</sup> Simona A. Balan,<sup>‡</sup> Arlene Blum,<sup>§,||</sup> David Q. Andrews,<sup>⊥</sup> Mark J. Strynar,<sup>#,⊕</sup> Margaret E. Dickinson,<sup>∇</sup> David M. Lunderberg,<sup>∇</sup> Johnsie R. Lang,<sup>○</sup> and Graham F. Peaslee<sup>@</sup>

6,930 downloads  
77 news stories



Sweetened Swimming Pools and Hot Tubs

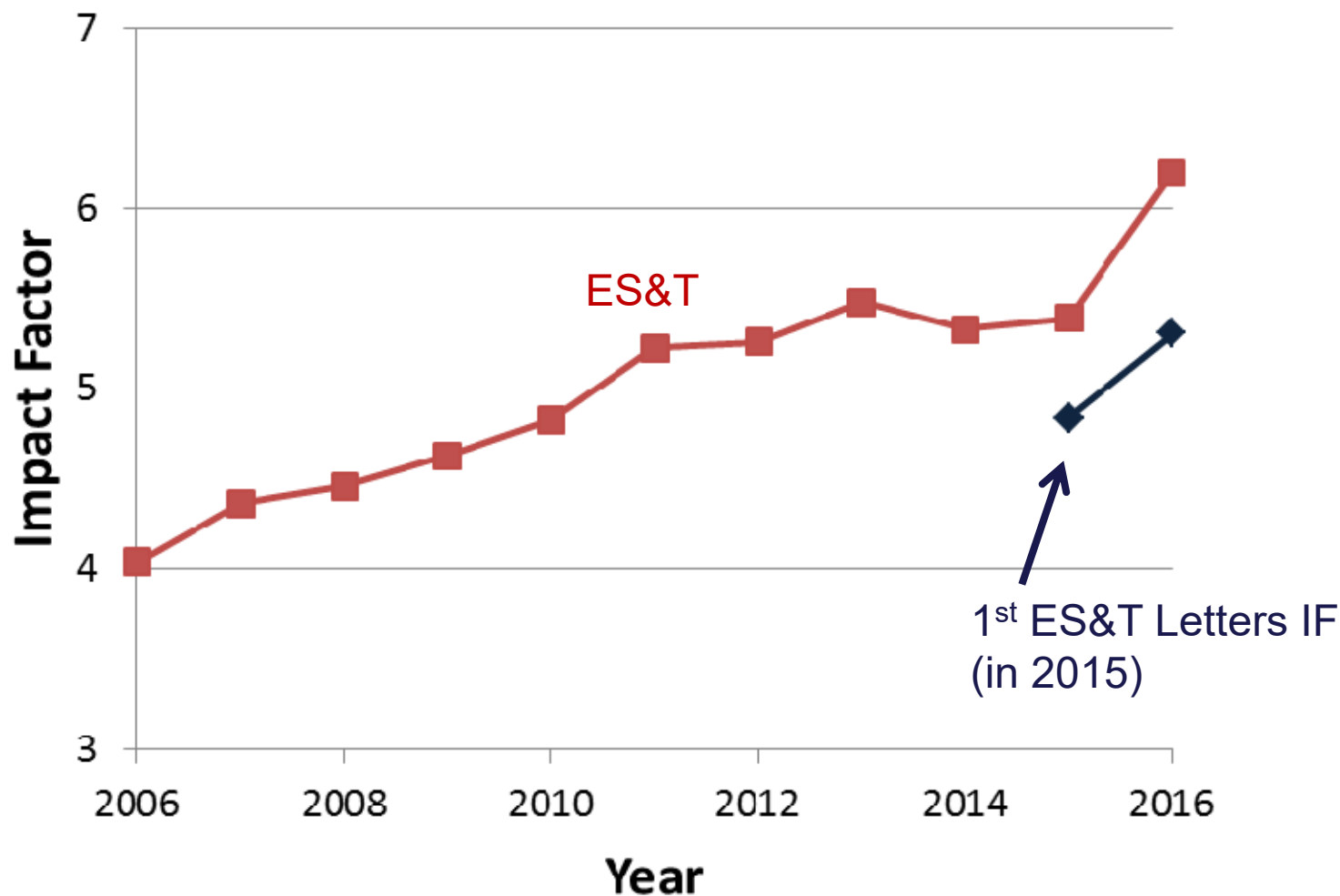
Lindsay K. Jmaiff Blackstock, Wei Wang, Sai Vemula, Benjamin T. Jaeger, and Xing-Fang Li<sup>\*,⊕</sup>

Division of Analytical and Environmental Toxicology, Department of Laboratory Medicine and Pathology, Faculty of Medicine and Dentistry, University of Alberta, Edmonton, Alberta, Canada T6G 2G3

8,777 downloads  
174 news stories

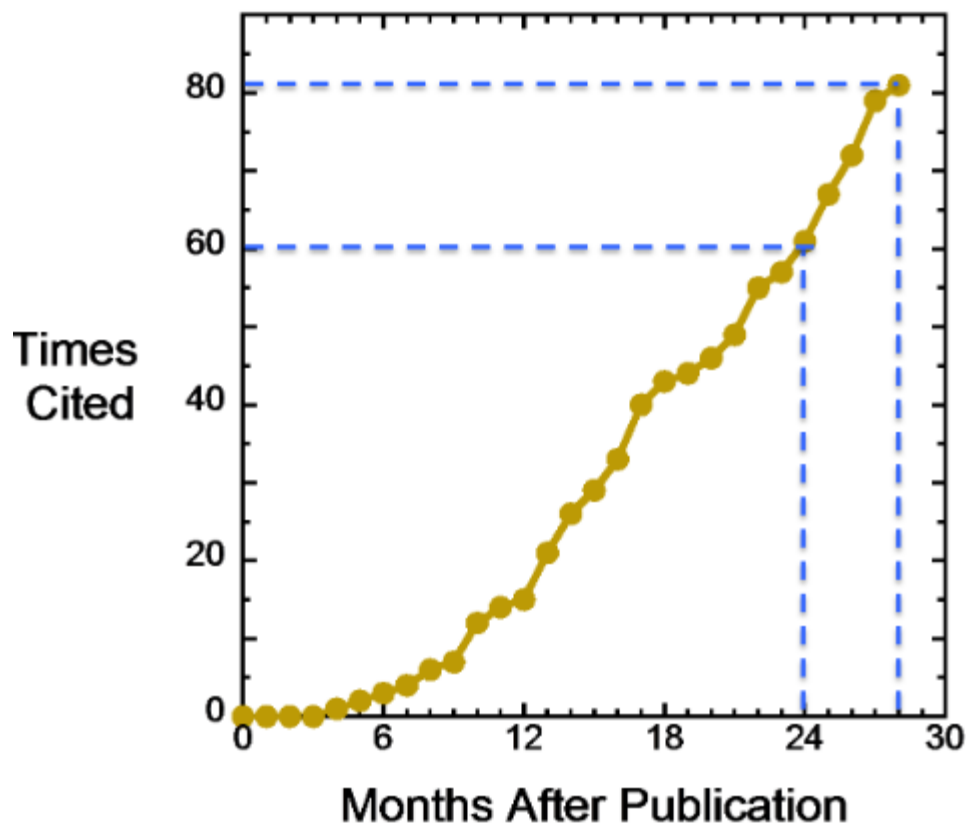
\*Analysis done in February, 2017

# Quantitative Measures of Impact



Analysis in 2017

## Highly cited papers greatly benefit from extra citation time



Some Journals publishing in the “future”, up to 4 months

Examples: Assigned full issues and page numbers  
(On May 2, 2016)

- *Water Res.*: June 1
- *Coll. Surfaces B*: July 1
- *J. Haz Mat*: July 15
- *Desalination*: August 1
- *Biosen. Bioelec*: August 1
- *J. Membrane Sci*: August 15
- *ES&T*: April 19
- *ES&T Letters*: April 12

# Impact Factor (*IF*)

- *IF* calculated as:

$$- IF = \frac{\text{\# citations in last year}}{\text{\# of papers in previous 2 years}} = \frac{\text{\# citations in 2015 (for 2013+2014 papers)}}{\text{\# of papers in 2013 + 2014}}$$

- *ES&T*:  $IF = \frac{18,604}{3691} = 5.04$

- *ES&T Letters*

- No papers published in *ES&T Letters* in 2013!

- So how is the *IF* calculated? Using only the previous year

- $IF = \frac{\text{\# citations in 2015 for 2014}}{\text{\# of papers published in 2014}}$

- However, as we have seen, the number of citations in the second year is much higher than the first year;

- The *IF* for the first year is therefore “low” compared to second year.

- 2015: *IF*= 4.84 (first year)

- 2016: *IF*= 5.31 (two years)

# Do papers in ES&T get cited more than my publications in other journals with the same IF?

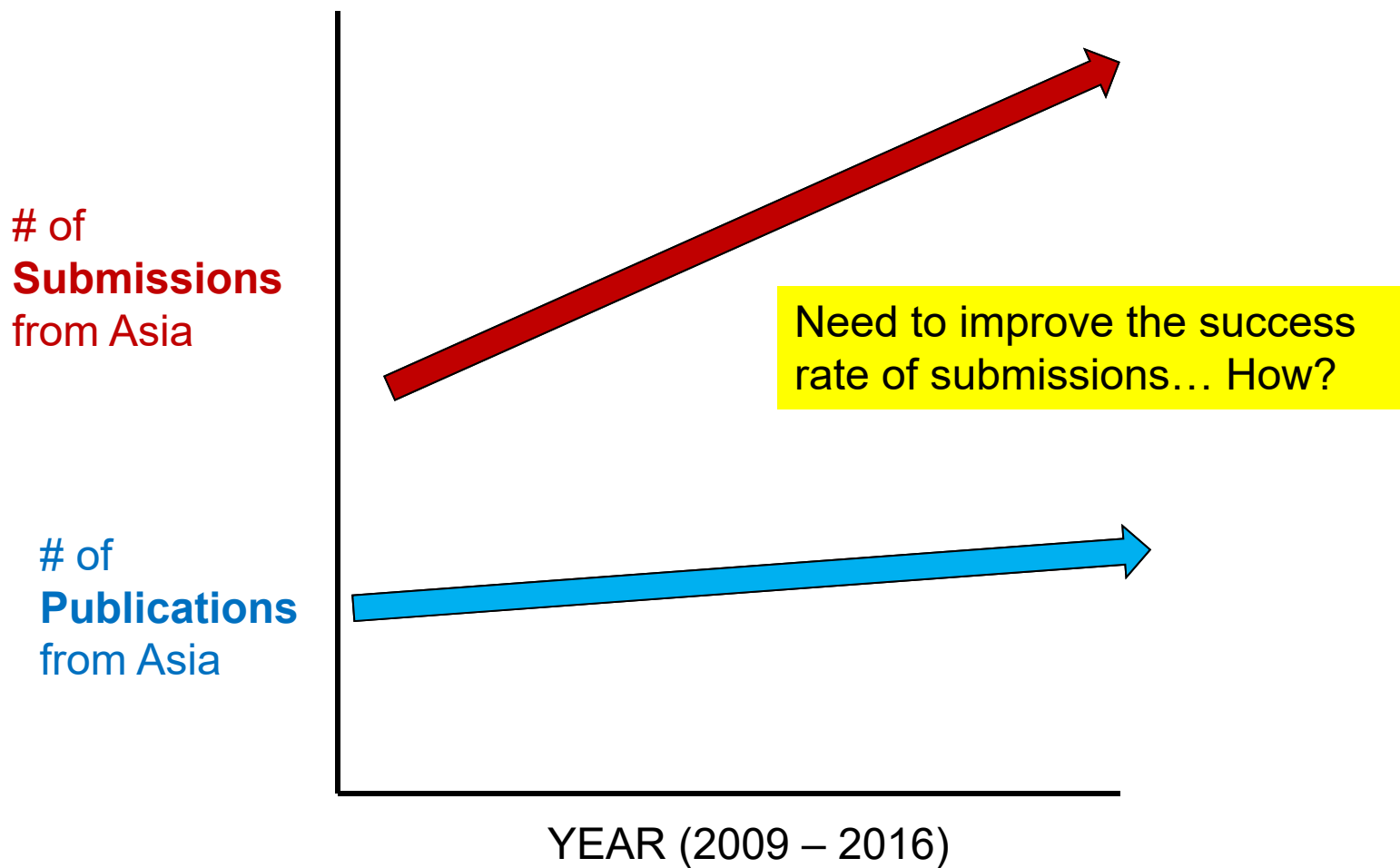
*Based on my own experience: Yes!\**

- *ES&T* IF=5.3 74, 165 cit/paper
- *Biores. Technol.* IF= 4.5 37, 34 cit/paper
- *J. Power Sources.* IF= 6.3 25, 39
- *Energy Env. Sci.* IF= 21 6, 44
- *Science* IF= 34 2, 160

\*Analysis done in February, 2017



# Trends in Publications from Asia (*ES&T*)



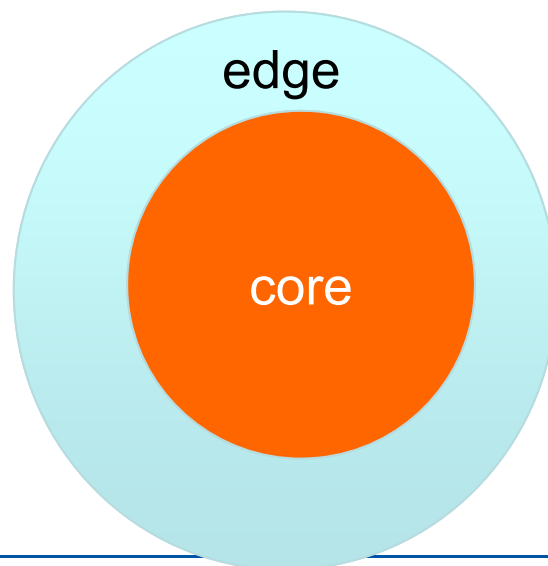
# Is Your Topic Appropriate?

**Core Topics:** Environmental Chemistry (e.g., emerging contaminants, POPs, nanomaterial fate, air pollution)

→ *Is your manuscript too specialized?*

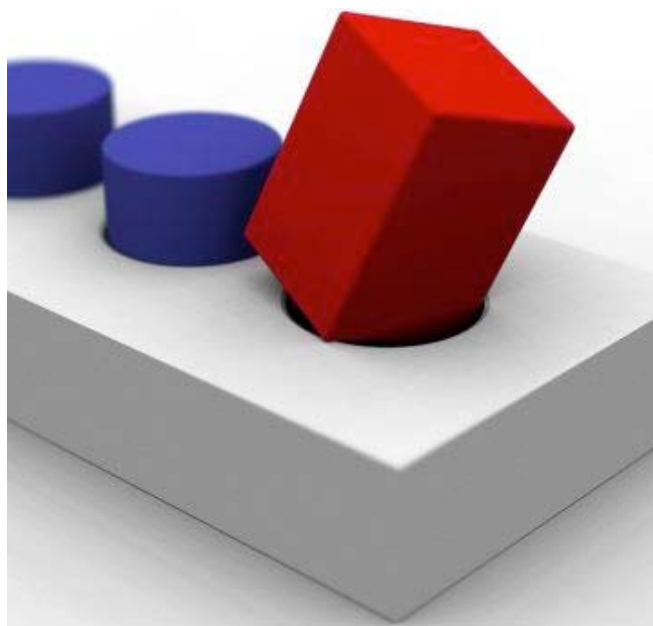
**Edge Topics:** Broad Significance (e.g., transport models, energy conversion, climate models, public health)

→ *Will the research interest ES&T's readers?*



# Determining Appropriate Fit

- Editors will consider your Submission Letter to establish fit with the journal
- If in doubt, consider your manuscript's references (small number of ES&T/L citations often suggests a poor fit)



# Does it Contain Fatal Flaws?

**Fatal Flaw:** Cannot be Fixed Upon Revision

- Previous research not fully considered
- Shortcomings in methods or analysis
- Unjustified assumptions

**Internal Review**

- Group members
- Close colleagues



# Is it a High Quality Presentation?

## English

- Minimum expectation
- Higher quality improves review outcome
- Editing services available if needed

## Common Weaknesses

- Failure to follow directions (e.g., lengthy introduction, conclusions, etc.)
- Failure to highlight novel contribution
- Bad graphics

## Ethical Violations...



# Ethical Violations are Serious

## Plagiarism

- You cannot copy text, figures from others
- Changing some words does not help

## Self-Plagiarism

- You cannot reuse text, figures, data

## Resubmitting a Previously Rejected Paper

- New title for same idea is not enough
- Only resubmit if invited by editor

## Listing Authors who did not Contribute



# Is it Sufficiently Novel?

Findings Must be Considered Novel to:

- *Associate Editor*
  - Before reviews
  - After reviews
  
- *Recommended Reviewers should:*
  - Be leaders in field
  - Have published in area of paper
  - Not have conflict of interest with you



# The Quality/Quantity Tradeoff

Previous Publications Can Reduce Novelty

→ Incremental? Will be rejected.

Other Journals May be Better Venues for Research that:

- Reinforces existing idea
- Includes routine data
- Optimizes existing technology





## Additional considerations specific to *ES&T Letters* on reasons for rejections...



- No great urgency for rapid publication
- Over the 3000 word limit (includes 200 words per figure)
- Too much material is “buried” in the supporting information
- Not an *ES&T Letters* topic. We do NOT encourage:
  - Modeling
  - Life cycle analysis
  - Policy

# Reviewing is Rewarding



**Gateway to *ES&T/L* Editorial Team**

Reviewer → EAB Member → Associate Editor

**Insights into Process/Research Ideas**

**Community Obligation**

**Reviewer Awards**

# How Many Reviews?

## I Owe, I Owe, so Off To Review I Go

It is time to think about reviewer metrics. You probably had numerous anonymous reviewers for all those great papers you published last year, but did you return the favors? Did you provide as many reviews as you received? There is a lot of discussion about journal impact factors (IF) and the number of citations for a paper (N), and if you have published more than a few papers, you have probably calculated your h-index. (The

top journals, and providing quality reviews for these journals, you will really shine on this metric. The downside? You might decide to review for only high-IF journals, and therefore you would have a high R-factor, but you could have a low R-index!

You can probably think of a few other R metrics yourself, but of course, they all have their own advantages and pitfalls. Any R metric that you calculate has the same inherent flaw: it is just a

*ES&T Letters* Editorial: “I owe, I owe...” (vol. 1, issue 5)

**General Rule:** Authors (or members of their group) owe at least 3 reviews per manuscript submitted

### Some Pointers:

Better to say No than: be late, or submit low quality review

If you say No: Suggest other reviewers...

Hard to “erase” a reputation for late/poor quality reviews!

# Tracking Reviewers

- **Reviewer Statistics**

- Quality (1 to 3 scale; 3=best)
- Timeliness (1 to 3 scale; 3=best)
- **$(\text{Quality} + \text{Timeliness})/2 = \text{Reviewer Score}$**
- Number of reviews (current and past)
- Number of times accepted, rejected, or no response



Example: As an Associate Editor, who do you choose?

<b>Reviewer "X"</b>	0 / 0	513	1.00	<input type="checkbox"/>
	(0 / 0)	(398)	(1.75)	
	(0 / 0)	(398)	(1.75)	
Roles: AU REV				
<a href="#">New Search</a>	<a href="#">Modify Search</a>			<a href="#">Add</a>

<b>Reviewer "Y"</b>	1 / 9	4	2.83	<input type="checkbox"/>
	(1 / 22)	(4)	(2.86)	
	(1 / 22)	(4)	(2.86)	
<a href="#">New Search</a>	<a href="#">Modify Search</a>			<a href="#">Add</a>

# Reviewer Mentoring



- Training new reviewers is essential to the sustainability of journal quality and our reviewer base
- Working with your students (and postdocs) on how to provide a good review will make them better writers as well as better reviewers
- Students will learn more about their field and start to develop more “horizontally” & think more broadly

# Steps in Reviewer Mentoring

- You (The Professor): Accept the *ES&T/L* request
- You: Send manuscript to your **Student**
  - Reviewer Guidelines
  - Emphasize confidentiality
- You and **Student**: both read the paper
- **Student**: prepares the initial review, meets with you, and revises
- You: Revise, make final review; send to **Student**
- You: submit the review:
  - Notify the associate editor (in comments) that review was assisted by **Student X**, with (1 sentence) on **Student** qualifications, and Student email address.
- Outcome assessment: You can ask to see the other reviews (some editors will provide these; some will not)



## More Reviewing Experience? Try a Literature Review Class!

- Conduct a 1-credit literature review class
  - Each semester = new topic
  - 1 paper per week
- **Keep the class small:** ~10 students/researchers
- **First class:** The “instructor” chooses the first paper, leads the first discussion;
  - Instructor does not serve as the “expert” during the discussion; only makes comments only at the end of class.
- **Other classes:** Students choose all other papers and lead all discussions



[ACS Reviewer Lab: https://www.acsreviewerlab.org/](https://www.acsreviewerlab.org/)

# Additional Resources/Discussion

- **EAB Members**
  - Meet with our EAB members when possible (visiting a university or at a conference)
- **Editorials**
  - *ES&T & ES&T Letters (March 2017): “Two journals sharing one name”*
  - *ES&T (July 2015): “We came, we saw, we listened”*
  - *ES&T (June 2015): “Just said no”*
  - *ES&T Letters (May 2014): “I owe, I owe, so off to review I go...”*





# The Expanding ACS Journals List

- The ACS journals have grown to:
  - 51 Journals with >500 Technical-expert Associate Editors
- ACS wants you to publish in our family of journals. Consider?
  - *ES&T* and *ES&T Letters*
  - *ACS Sustainable Chemistry & Engineering*
  - *ACS Earth and Space Chemistry*
  - *ACS Energy Letters* and *Energy & Fuels*
  - *ACS Nano* and *Nano Letters*
  - *JACS*

# Final thoughts

- *ES&T and ES&T Letters*
  - Both journals require papers that are novel.
  - *ES&T Letters*: must tell a complete story (in fewer words than *ES&T*) and require urgent publication.
  - *ES&T*: Research Articles are more detailed and must be fully articulated.
  - Both journals welcome review paper: *ES&T*, critical reviews <10,000 words; *ES&T Letters*, Brief Reviews, <5000 words on emerging or urgent topics.
- Reviewing
  - Work on being a great reviewer
  - Train others in your research group to be great reviewers!
- Thank you for publishing in ACS journals

# Questions? Comments?

