

ES&T's Best Papers of 2013: Under Pressure

Pressure applying for funding. Pressure publishing the work. Pressure from all sides. It is a marvel to consider the high quality of work our authors send us under these circumstances. Throughout March we celebrated four of the very best papers ES&T published in 2013. We also want to recognize the runners up, papers which are nearly indistinguishable in quality from the winners.

In 2013, ES&T received more than 5400 submissions and published 1730 articles on a wide range of topics. Continuing a journal tradition, our editorial team selected what they felt to be the best of the bunch in four categories: Science, Technology, Policy, and Feature. The Associate Editors nominated papers that they felt were of the highest caliber[™] papers expected to have a significant and long-lasting impact on the field. A subcommittee from our Editorial Advisory Board, chaired by Jason White, pored over the nominations, creating a short list for each category. I had the difficult task of trying to choose the best of the best. In the eighth year of this award, narrowing the list and choosing the best was both a challenge and a privilege.

We hope this brings special recognition to you, our authors, and focuses attention on your high-quality papers. The Best Paper Awards are an annual event with the Top Papers announced online ahead of this issue. This year we also recorded podcast interviews with the authors of the winning articles. Check them out!

<http://pubs.acs.org/page/esthag/audio/index.html>

Congratulations to all the authors on a job well done.

FEATURE

Top Paper. Susan C. Anenberg, Kalpana Balakrishnan, James Jetter, Omar Masera, Sumi Mehta, Jacob Moss, and Veerabhadran Ramanathan. Cleaner Cooking Solutions to Achieve Health, Climate, and Economic Cobenefits. *Environ. Sci. Technol.* 2013, 47 (9), 3944–3952 (*Environ. Sci. Technol.* DOI 10.1021/es304942e).

First Runner-Up. Emily G. Snyder, Timothy H. Watkins, Paul A. Solomon, Eben D. Thoma, Ronald W. Williams, Gayle S. W. Hagler, David Shelow, David A. Hindin, Vasu J. Kilaru, and Peter W. Preuss. The Changing Paradigm of Air Pollution Monitoring. *Environ. Sci. Technol.* 2013, 47 (20), 11369–11377 (*Environ. Sci. Technol.* DOI 10.1021/es4022602).

Second Runner-Up. Linn M. Persson, Magnus Breitholtz, Ian T. Cousins, Cynthia A. de Wit, Matthew MacLeod, and Michael S. McLachlan. Confronting Unknown Planetary Boundary Threats from Chemical Pollution. *Environ. Sci. Technol.* 2013, 47 (22), 12619–12622 (*Environ. Sci. Technol.* DOI 10.1021/es402501c).

ENVIRONMENTAL SCIENCE

Top Paper. Nathaniel R. Warner, Cidney A. Christie, Robert B. Jackson, and Avner Vengosh. Impacts of Shale Gas Wastewater Disposal on Water Quality in Western Pennsylvania. *Environ. Sci. Technol.* 2013, 47 (20), 11849–11857 (*Environ. Sci. Technol.* DOI 10.1021/es402165b).

First Runner-Up. Erik R. Zettler, Tracy J. Mincer, and Linda A. Amaral-Zettler. Life in the “Plastisphere”: Microbial Communities on Plastic Marine Debris. *Environ. Sci. Technol.* 2013, 47 (13), 7137–7146 (*Environ. Sci. Technol.* DOI 10.1021/es401288x).

Second Runner-Up. Charles J. Weschler and William W. Nazaroff. Dermal Uptake of Organic Vapors Commonly Found in Indoor Air. *Environ. Sci. Technol.* 2014, 48 (2), 1230–1237 (*Environ. Sci. Technol.* DOI 10.1021/es405490a).

Third Runner-Up (Tie). Rachel A. Lundeen and Kristopher McNeill. Reactivity Differences of Combined and Free Amino Acids: Quantifying the Relationship between Three-Dimensional Protein Structure and Singlet Oxygen Reaction Rates. *Environ. Sci. Technol.* 2013, 47 (24), 14215–14223 (*Environ. Sci. Technol.* DOI 10.1021/es404236c).

Third Runner-Up (Tie). Barbara A. Maher, Imad A. M. Ahmed, Brian Davison, Vassil Karloukovski, and Robert Clarke. Impact of Roadside Tree Lines on Indoor Concentrations of Traffic-Derived Particulate Matter. *Environ. Sci. Technol.* 2013, 47 (23), 13737–13744 (*Environ. Sci. Technol.* DOI 10.1021/es404363m).

ENVIRONMENTAL TECHNOLOGY

Top Paper. Siew-Leng Loo, Anthony G. Fane, Teik-Thye Lim, William B. Krantz, Yen-Nan Liang, Xin Liu, and Xiao Hu. Superabsorbent Cryogels Decorated with Silver Nanoparticles as a Novel Water Technology for Point-of-Use Disinfection. *Environ. Sci. Technol.* 2013, 47 (16), 9363–9371 (*Environ. Sci. Technol.* DOI 10.1021/es401219s).

First Runner-Up. Gang Liu and Daniel B. Muller. Mapping the Global Journey of Anthropogenic Aluminum: A Trade-Linked Multilevel Material Flow Analysis. *Environ. Sci. Technol.* 2013, 47 (20), 11873–11881 (*Environ. Sci. Technol.* DOI 10.1021/es4024404).

Second Runner-Up. Ngai Yin Yip and Menachem Elimelech. Influence of Natural Organic Matter Fouling and Osmotic Backwash on Pressure Retarded Osmosis Energy Production from Natural Salinity Gradients. *Environ. Sci. Technol.* 2013, 47 (21), 12607–12616 (*Environ. Sci. Technol.* DOI 10.1021/es403207m).

Third Runner-Up. Jake W. O'Brien, Phong K. Thai, Geoff Eaglesham, Christoph Ort, Andreas Scheidegger, Steve Carter, Foon Yin Lai, and Jochen F. Mueller. A Model to Estimate the Population Contributing to the Wastewater Using Samples Collected on Census Day. *Environ. Sci. Technol.* 2014, 48 (1), 517–525 (*Environ. Sci. Technol.* DOI 10.1021/es403251g).

ENVIRONMENTAL POLICY

Top Paper. Jens Borken-Kleefeld, Jan Fuglestvedt, and Terje Berntsen. Mode, Load, And Specific Climate Impact from Passenger Trips. *Environ. Sci. Technol.* 2013, 47 (14), 7608–7614 (*Environ. Sci. Technol.* DOI 10.1021/es4003718).

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First Runner-Up. Christian E. H. Beaudrie, Milind Kandlikar, and Terre Satterfield. From Cradle-to-Grave at the Nanoscale: Gaps in U.S. Regulatory Oversight along the Nanomaterial Life Cycle. *Environ. Sci. Technol.* 2013, 47 (11), 5524–5534 (Environ. Sci. Technol. DOI 10.1021/es303591x).

Second Runner-Up. Jelle H. Rademaker, Rene Kleijn, and Yongxiang Yang. Recycling as a Strategy against Rare Earth Element Criticality: A Systemic Evaluation of the Potential Yield of NdFeB Magnet Recycling. *Environ. Sci. Technol.* 2013, 47 (18), 10129–10136 (Environ. Sci. Technol. DOI 10.1021/es305007w).



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Notes

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The authors declare no competing financial interest.