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Forty years ago, in 1969, two groups declared that 1970 would see the first annual “Earth Day”. The international celebrations were set for the vernal equinox (March 20 in 2009); the U.S. celebration for April 22. Although the annual events offer an optimistic tone, Associate Editor David Dzombak comments that we still have to be diligent about maintaining a clean(er) environment. This cover, sporting the astronomical symbol for the Earth (\oplus), is in reference to Earth Day and an attempt to capture the science, technology, and policy reflected in *ES&T*'s Best Papers of 2008. Cover art by Rhonda Saunders with images from Shutterstock. [View the article.](#)

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Guoyu Long, Pingting Zhu, Yun Shen and Meiping Tong

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Yong B. Lim and Paul J. Ziemann

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Ying Xu, Elaine A. Cohen Hubal, Per A. Clausen and John C. Little

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Markus Gresch, Raphael Brügger, Alain Meyer and Willi Gujer

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Efficient Probabilistic Estimates of Surface Ozone Concentration Using an Ensemble of Model Configurations and Direct Sensitivity Calculations




Robert W. Pinder, Robert C. Gilliam, K. Wyatt Appel, Sergey L. Napelenok, Kristen M. Foley and

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Antonio Nebbioso and Alessandro Piccolo

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P. C. Novelli, A. M. Crotwell and B. D. Hall

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Claudia Mohr, J. Alex Huffman, Michael J. Cubison, Allison C. Aiken, Kenneth S. Docherty, Joel R. Kimmel, Ingrid M. Ulbrich, Michael Hannigan and Jose L. Jimenez

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Heqing Shen, Bernhard Henkelmann, Walkiria Levy, Adam Zsolnay, Peter Weiss, Gert Jakobi, Manfred Kirchner, Wolfgang Moche, Katharina Braun and Karl-Werner Schramm

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Low-Level Mercury Speciation in Freshwaters by Isotope Dilution GC-ICP-MS

Brian Jackson, Vivien Taylor, R. Arthur Baker and Eric Miller

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Ana M. Bernabeu, Daniel Rey, Belén Rubio, Federico Vilas, Carmen Domínguez, Josep M.

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Remediation and Control Technologies




Phosphorus Removal from Waste Waters Using Basic Oxygen Steel Slag

Lawrence I. Bowden, Adam P. Jarvis, Paul L. Younger and Karen L. Johnson

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Ya Hsuan Liou, Chin Jung Lin, Shih Chi Weng, Hsin Hung Ou and Shang Lien Lo

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Michael C. Dodd, Hans-Peter E. Kohler and Urs von Gunten

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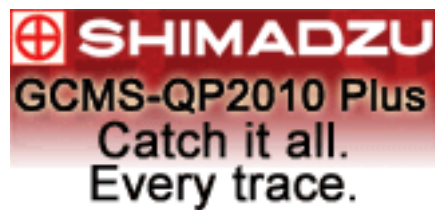
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