

EDITORIAL

847 **Negotiating action**

COMMENT

848 **Towards real-time verification of CO₂ emissions**

Glen P. Peters, Corinne Le Quéré, Robbie M. Andrew, Josep G. Canadell, Pierre Friedlingstein, Tatiana Ilyina, Robert B. Jackson, Fortunat Joos, Jan Ivar Korsbakken, Galen A. McKinley, Stephen Sitch and Pieter Tans

850 **Reassessing emotion in climate change communication**

Daniel A. Chapman, Brian Lickel and Ezra M. Markowitz

RESEARCH HIGHLIGHTS

853 **Our choice from the recent literature**

NEWS & VIEWS

854 **Oceanography: Hot and sour in the deep ocean**

Christopher L. Sabine

855 **Hydrology: Near doubling of storm rainfall**

Zhe Feng

PERSPECTIVE

857 **Improving poverty and inequality modelling in climate research**

Narasimha D. Rao, Bas J. van Ruijven, Keywan Riahi and Valentina Bosetti

863 **Short-lived climate pollutant mitigation and the Sustainable Development Goals**

Andy Haines, Markus Amann, Nathan Borgford-Parnell, Sunday Leonard, Johan Kuylenstierna and Drew Shindell

LETTERS

871 **Measuring progress from nationally determined contributions to mid-century strategies**

Gokul Iyer, Catherine Ledna, Leon Clarke, James Edmonds, Haewon McJeon, Page Kyle and James H. Williams

875 **Recently amplified arctic warming has contributed to a continual global warming trend**

Jianbin Huang, Xiangdong Zhang, Qiyi Zhang, Yanluan Lin, Mingju Hao, Yong Luo, Zongci Zhao, Yao Yao, Xin Chen, Lei Wang, Suping Nie, Yizhou Yin, Ying Xu and Jiansong Zhang

880 **Increased rainfall volume from future convective storms in the US**

Andreas F. Prein, Changhai Liu, Kyoko Ikeda, Stanley B. Trier, Roy M. Rasmussen, Greg J. Holland and Martyn P. Clark

→N&V p855

885 **Increasing frequency of extremely severe cyclonic storms over the Arabian Sea**

Hiroyuki Murakami, Gabriel A. Vecchi and Seth Underwood

- 890 Deep oceans may acidify faster than anticipated due to global warming**
Chen-Tung Arthur Chen, Hon-Kit Lui, Chia-Han Hsieh, Tetsuo Yanagi, Naohiro Kosugi,
Masao Ishii and Gwo-Ching Gong
→N&V p854
- 895 Warming alters energetic structure and function but not resilience of soil
food webs**
Benjamin Schwarz, Andrew D. Barnes, Madhav P. Thakur, Ulrich Brose,
Marcel Ciobanu, Peter B. Reich, Roy L. Rich, Benjamin Rosenbaum, Artur Stefanski
and Nico Eisenhauer
- 901 Historical effects of CO₂ and climate trends on global crop water demand**
Daniel W. Urban, Justin Sheffield and David B. Lobell
- 906 A pan-tropical cascade of fire driven by El Niño/Southern Oscillation**
Yang Chen, Douglas C. Morton, Niels Andela, Guido R. van der Werf, Louis Giglio
and James T. Randerson

ARTICLES

- 912 Effectiveness of state climate and energy policies in reducing power-sector
CO₂ emissions**
Geoff Martin and Eri Saikawa
- 920 Greenhouse gas emission curves for advanced biofuel supply chains**
Vassilis Daioglou, Jonathan C. Doelman, Elke Stehfest, Christoph Müller, Birka Wicke,
Andre Faaij and Detlef P. van Vuuren