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River flow enhanced by solar dimming

LAURENTIDE ICEBERGS

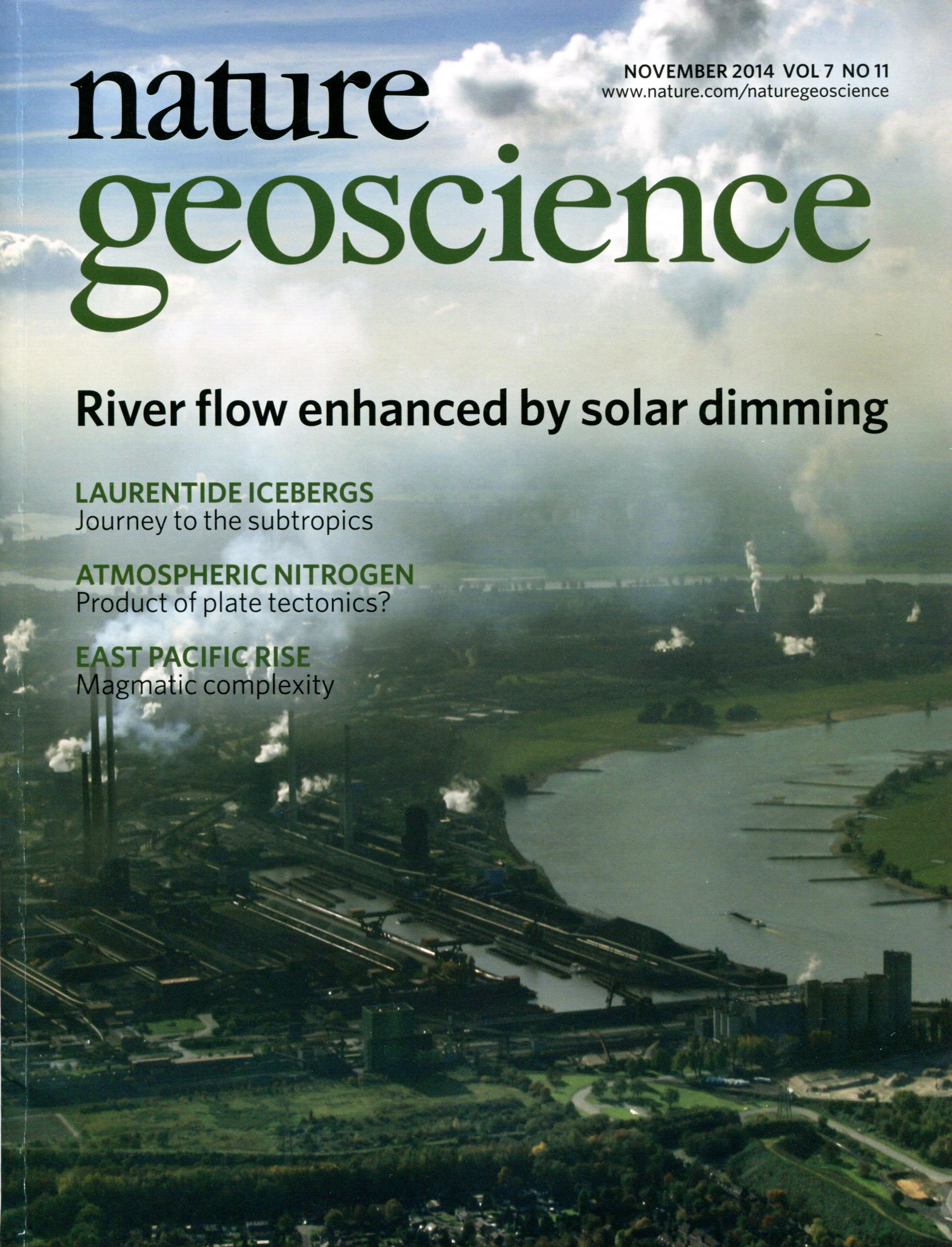
Journey to the subtropics

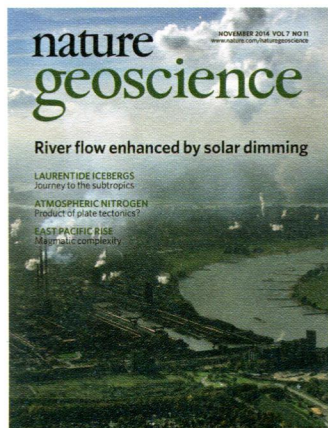
ATMOSPHERIC NITROGEN

Product of plate tectonics?

EAST PACIFIC RISE

Magmatic complexity



**COVER IMAGE**

Solar dimming from aerosols has the potential to reduce surface evaporation. A detection analysis suggests that through this effect, river flow increased by up to 25% in the most heavily polluted regions of Europe around 1980. The image shows air pollution over the river Rhine near Duisburg, Germany on 20 October 2007.
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IMAGE: © IMAGEBROKER/ALAMY

COVER DESIGN: DAVID SHAND

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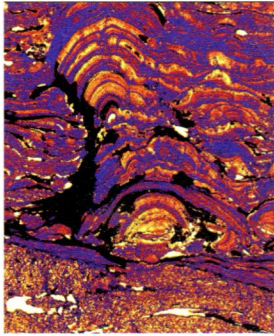
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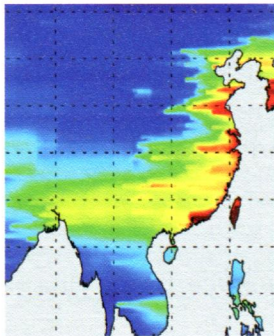
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Today, arsenic metabolism occurs in some anoxic aquatic systems. Geochemical analyses of 2.7-billion-year-old stromatolites show evidence of microbial arsenic cycling in a saline, shallow marine system.

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Global CO₂ emissions are usually assessed from uncertain bottom-up estimates. A satellite-based top-down estimate suggests that emissions of NO_x in East Asia have been reduced relative to those of CO₂ since 2003, probably due to cleaner technology.

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