

SCIENCE'S COMPASS

Agency for cleanup and monitoring of pollution attributable to these industries? In addition, we should not ignore the costs from coal and natural gas's exacerbation of acid deposition, urban smog, human health and mortality, visibility degradation, and global warming.

MARK Z. JACOBSON,* GILBERT M. MASTERS

Department of Civil and Environmental Engineering, Terman Engineering Center, Stanford University, Stanford, CA 94305-4020, USA

*To whom correspondence should be addressed.

E-mail: jacobson@ce.stanford.edu

References and Notes

1. E. Hirst, *Interactions of Wind Farms with Bulk-Power Operations and Markets* (September 2001) (<http://www.EHirst.com/PDF/WindIntegration.pdf>).
2. Danish Windturbine Manufacturers Association, "21 Frequently Asked Questions About Wind Energy" (updated 16 April 2001) (<http://www.windpower.dk/faqs.htm>).
3. M. Shaheen, *Wind Energy Issue Brief 9a* (October 1997) (<http://www.nationalwind.org/pubs/wes/ibrief09a.htm>).
4. J. Makens, *Upgrading Transmission Capacity for Wholesale Electric Power Trade* [modified 17 May 2001], table FE2 (http://www.eia.doe.gov/cneaf/pubs_html/feat_trans_capacity/table2.html).
5. Greenhouse Gas Technology Information Exchange (GREENTIE), "High Voltage Direct-Current Transmission" (modified March 2001) (<http://www.greentie.org/class/ixd04.htm>).
6. The capacity factor equation has been verified independently to within 2.8 to 3.5% of our calculation by Enron Wind, a wind power company. They determined the annual energy yield of their 1500-kW, 77-m turbine (the

one used in our example) as a function of mean Rayleigh wind speed [Enron Wind, "1.5 [wind turbine] Technical Data," figure 2 (cited September 2001) (<http://www.wind.enron.com/PRODUCTS/15/15data.html>)]. The comparative numbers in units of kWh/year (divide these numbers by 8760P to obtain the capacity factor) are as follows:

Mean Rayleigh wind speed	7 m/s	7.5 m/s
Our calculation	4.68×10^6	5.26×10^6
$E = 8760P(0.087VP/D^2)$		
Enron's data	4.55×10^6	5.08×10^6

[V is the mean annual Rayleigh-distribution wind speed (m/second), P is the rated power (kW) of the turbine, and D is the diameter of the turbine (m).]

CORRECTIONS AND CLARIFICATIONS

NEWS OF THE WEEK: "Vesuvius: a threat subsiding?" by A. Hellemans (19 Oct., p. 495). Because of an editing error, the name of the institute at which Riccardo Lanari and his colleagues work was incorrect. It should have been given as the Institute of Electromagnetic Sensing of the Environment of the CNR (IREA-CNR).

NEWS FOCUS: "Science awards pack a full house of winners" (19 Oct., p. 502). Eric Cornell, one of three co-winners of the 2001 Nobel Prize in physics, is not primarily employed by the University of Colorado, as was indicated in the section

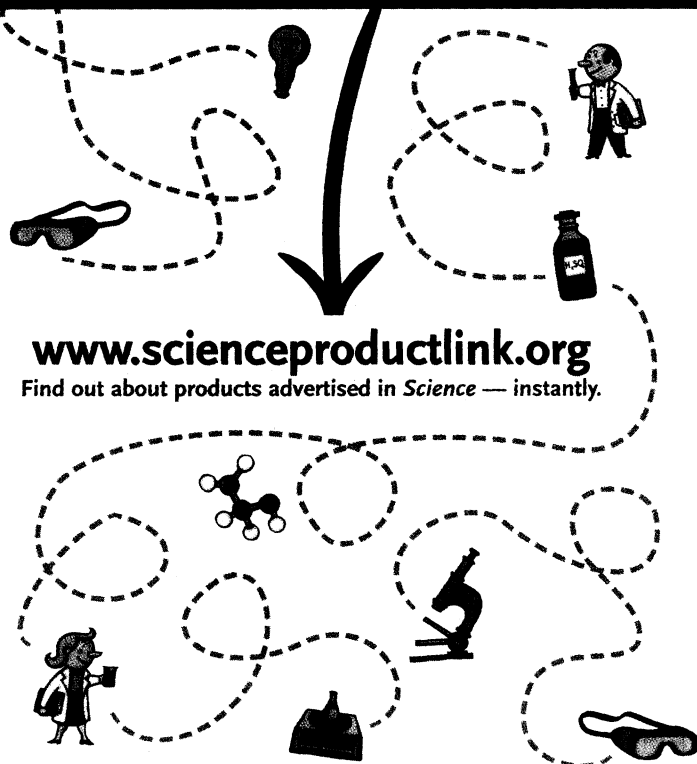
"Laurels for a new type of matter." While it is true that Cornell holds an adjunct professorship with this university, his primary employer is the National Institute of Standards and Technology, where he is a senior scientist.

REPORTS: "Room-temperature ferromagnetism in transparent transition metal-doped titanium dioxide" by Y. Matsumoto *et al.* (2 Feb. 2001, p. 854). The publication year was incorrect in References 2 and 3. The correct year for Ref. 2 is 1988; the correct year for Ref. 3 is 1999. In Ref. 6, the page number was erroneously given. The correct page number is 3860, not 25.

Letters to the Editor

Letters (~300 words) discuss material published in *Science* in the previous 6 months or issues of general interest. They can be submitted by e-mail (science_letters@aaas.org), the Web (www.letter2science.org), or regular mail (1200 New York Ave., NW, Washington, DC 20005, USA). Letters are not acknowledged upon receipt, nor are authors generally consulted before publication. Whether published in full or in part, letters are subject to editing for clarity and space.

What's the shortest distance between two points?



Science announces a great way to find out about new products advertised or featured in *Science* — instantly. *Science's* Product Link is a new online reader service program and online product information service that allows readers to search for products advertised or featured in *Science* by

- product category,
- company name,
- keyword, and
- page number.

You can look for product information in current and back issues. You can even link to advertisers' websites for more information.

If you prefer, you can request to have product information delivered via

- e-mail,
- regular mail,
- telephone, and
- fax.

What's the shortest distance between two points?
Science's Product Link.

Science
Discover the Future