



RESOURCES

Tallying Earth's Scars

Although Earth doesn't share the moon's pockmarked complexion, plenty of asteroids, meteors, and comets have walloped our planet. It's not always obvious, however, because erosion and other geological processes often scrub away the signs. The Earth Impact Database from the University of New Brunswick in Canada records data on 169 earthly craters, from the 300-kilometer-wide Vredefort crater in South Africa to Kansas's pipsqueak Haviland crater, a measly 15 meters across. The roster provides vital statistics for each structure, such as location, size, age, and whether it's buried or exposed. Revamped and expanded since it last appeared in NetWatch (*Science*, 29 January 1999, p. 599), the database now boasts information on more craters and includes references and a larger gallery. Above, an aerial photo of the Wolfe Creek crater in northern Australia, a kilometer-wide wound gouged roughly 300,000 years ago.

www.unb.ca/passc/ImpactDatabase

EXHIBIT

The Man Who Bent Space

The formula $E = mc^2$ ushered in the nuclear age by revealing that matter and energy are equivalent. You can see the famed equation written in Einstein's own hand (below) at the newly launched Einstein Archives Online. Browse digitized images of more than 900 manuscripts, unpublished articles, lecture notebooks, and travel diaries.

Einstein's scribbled corrections appear on many of the documents, including in 1916 his first methodical explanation of the general theory of relativity, which describes how matter distorts space and time. In addition, the archive provides 39 papers in the original German with historical and scientific annotations—22 of the papers also have English translations. Along with scientific treatises in which Einstein attempts to bring together all known physical forces under a unified field theory, you can also find his papers on international unity and

LINKS

Free Journal Finder

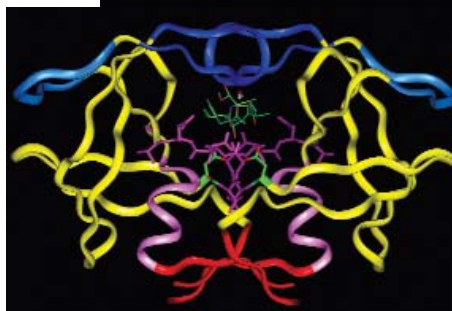
Plenty of online journals supply free content, and the Directory of Open Access Journals from Lund University in Sweden makes it easier to find them. The brand-new site links to more than 350 journals with free, full-text articles. You can browse titles in 15 categories, from agriculture to sociology. Scientific journals include *Stem Cells*, *Bulletin of the American Mathematical Society*, and *Conservation Ecology*. If none of the offerings catch your fancy, check back soon. The directory's curators plan to add new titles and a search feature that will allow visitors to find articles in any of the listed journals.

www.doaj.org

DATABASE

HIV's Achilles Heel

Without the enzyme protease, which chops newly manufactured viral proteins into useable strands, HIV can't replicate. Aimed at everyone from drug designers hoping to concoct more efficient blockers to students studying protein chemistry, the HIV Protease Database presents 3D structures of the crucial enzyme alone or coupling with inhibitors. Hosted by the National Institute of Standards and Technology, the collection holds measurements from more than 200 studies of HIV and SIV, the simian variant of the virus. You can search for structures by type or strain of virus, inhibitor, resolution, and other criteria, or troll a list of proteases from drug-resistant mutants. Although the database includes some info also stored in the Protein Data Bank, it also features results not available elsewhere. Above, a hydroxyethylamine inhibitor lodges in the enzyme's active site.



srdata.nist.gov/hivdb

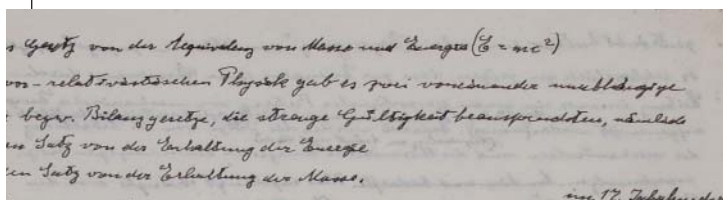
WEB TEXT

Rewriting the Book on Biochemistry

If you're looking for an alternative to traditional beginning biochemistry texts, try this online book from chemistry professor Henry Jakubowski of the College of Saint Benedict and Saint John's University in Minnesota. The text reorganizes topics into what Jakubowski argues is a logically smoother order that eases students into the subject. For example, the book starts with lipids instead of proteins because their structure is simpler to grasp. Unlike the printed arm-breakers, it also features chemical animations and gets updated weekly.

employees.csbsju.edu/hjakubowski/classes/ch331/bcintro/default.html

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pacifism. Partly because of as-yet-unresolved copyright issues, the cooperative effort between the Hebrew University of Jerusalem and the California Institute of Technology did not include any of Einstein's thousands of personal letters, but his correspondence with Freud, Stalin, and Gandhi might appear online in the future.

alberteinstein.info

Send site suggestions to netwatch@aaas.org. Archive: www.sciencemag.org/netwatch