Nanotube may boost power of computers, Aug. 27, 2001

In another step toward post-silicon computers, IBM scientists have built a computer circuit out of a single strand of carbon. The IBM circuit performs only a single simple operation — flipping a “true” to “false” and vice versa — but it marks the first time that a device made of carbon strands known as nanotubes has been able to carry out any sort of logic. It is also the first logic circuit made of a single molecule.

Another year of research is needed before IBM can even evaluate whether a practical computer chip can be manufactured from nanotubes, said IBM’s Dr. Phaedon Avouris. But the fact that the researchers were able to build the circuit raises hopes that nanotubes could eventually be used for computer processors that pack up to 10,000 times more transistors in the same amount of space. The processing power of computer chips has consistently doubled every year or two as the size of transistors continues to shrink. But current chip-making technology is expected to run up against fundamental physics limits in 10 to 15 years.

Dr. Charles M. Lieber, a professor of chemistry at Harvard, called the IBM achievement “quite significant.” The effort to incorporate nanotubes in computer chips is a “great strategy and one that could be implemented relatively quickly,” he said.

The IBM researchers presented their findings yesterday at a meeting of the American Chemical Society in Chicago. An article describing the results will appear in the September issue of the journal Nano Letters.
'Nanotube' may boost power of computers, Aug. 27, 2001

City's towering spirits take tea

Fashion influence

A hot trend this season recalls a superstar mode of the 1960s. 

'Nanotube' may boost power of computers

In another moved pared paradigm, computers IBM scientists have built a computer circuit out of a single molecular nanotube. The circuit, which forms only a single atomic device — a "nano" — is similar in its ability to conduct electricity, it can be manufactured into nanoscale chips.

The fact that the single device can be built is a big step forward for researchers who hope to develop electronic circuits that can be extremely small but capable of handling much more information than today's circuits.

Both the IBM research and the electronic circuits are expected to have significant impacts on the field of electronics, which is being driven by the need to make computers smaller and faster.

However, the IBM research also raises questions about the future of traditional electronics, which are based on the use of electronic circuits and transistors.

Foster homes dwindle; need remains critical

In Foster homes dwindle; need remains critical, we see a growing need for foster care and a decline in the number of available foster homes.

The article mentions the increasing need for foster care, especially for children who are unable to live with their biological parents.

The article also highlights the challenges faced by foster families, who often have to navigate complex systems and face financial stress.

Despite the challenges, the article emphasizes the importance of providing stable and loving environments for children in foster care.

Powell to skip racism forum

In Powell to skip racism forum, we see the US Secretary of State, who is expected to participate in the conference unless language from the pro-Israel group is removed. The article mentions the controversy surrounding the conference, which is scheduled to take place in Washington, DC.

The article highlights the importance of addressing racism and promoting diversity and inclusion in foreign policy decisions.

Mental health care lacking for minorities, study says

In Mental health care lacking for minorities, study says, we see a study that highlights the disparities in mental health care for minority populations.

The study, conducted by the National Alliance on Mental Illness, found that minority populations are more likely to experience mental health disparities than white populations.

The article emphasizes the need for increased access to mental health care and for addressing the systemic barriers that prevent minority populations from accessing care.

Condit may be facing lawsuits, ethics probe

In Condit may be facing lawsuits, ethics probe, we see the increasing scrutiny of Condit, a company that provides software for tracking and monitoring individuals.

The article mentions the recent surge in interest in privacy and data protection laws, which has led to increased scrutiny of companies that collect and store data.

The article highlights the importance of ensuring that companies comply with privacy laws and that individuals have control over their personal information.
In another step toward post-silicon computers, IBM scientists have built a computer circuit out of a single strand of carbon.

The IBM circuit performs only a single simple operation - flipping a "true" to "false" and vice versa - but it marks the first time that a device made of carbon strands known as nanotubes has been able to carry out any sort of logic. It is also the first logic circuit made of a single molecule.

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The IBM researchers present their findings yesterday at a meeting of the American Chemical Society in Chicago. An article describing the results will appear in the September issue of the journal Nano Letters.

-END-
CRIMELINE of globalist conspiracy between IBM and Harvard Prof. Charles M. Lieber

Jul. 30, 2001  Robert Mueller Senate confirmation hearing for FBI Director.
  https://fbcoverup.com/docs/cyberhijack/cyber-hijack-findings.html#patrick-mueller-911

Aug. 07, 2001  James P. Chandler, III filed Leader Technologies copyrights on its source code for social networking. (only the first and last 24 pages).
  https://fbcoverup.com/docs/cyberhijack/cyber-hijack-findings.html#chandler-leader-copyrights

Aug. 07, 2001  James P. Chandler, III was secretly appointed (without disclosing the conflicts to his client Leader Technologies) as director of Eurotech Ltd, along with Randolph A. Graves, former Director of Aerodynamics, NASA Langley; Don V. Hahnfeldt, former Commodore of a Trident Nuclear Submarine Squadron; James D. Watkins, former Sec. of Energy. Eurotech was renamed Markland Technologies then The White Oak Group that has more than $1 billion in U.S. Homeland Security contracts. Markland Technologies is a client of Jane Sullivan Roberts, wife of Chief Justice John G. Roberts, Jr.
  https://fbcoverup.com/docs/cyberhijack/cyber-hijack-findings.html#eurotech-08-07-2001

Aug. 09, 2001  James P. Chandler, III wrote himself into a source code escrow of Leader Technologies' social networking source code with Jeffrey Wadsworth and Lawrence Livermore National Laboratory (LLNL) without disclosing his Highland Group, NIAC, NSA conflicts of interest with his patent counsel to Leader Technologies.
  https://fbcoverup.com/docs/cyberhijack/cyber-hijack-findings.html#crada-smart-camera

Aug. 20, 2001  James P. Chandler, III arranged for his dual legal representation of social networking inventor Leader Technologies with Palo Alto, CA-based Fenwick & West LLP. Note: By 2007 Fenwick was filing hundreds of patent for Facebook without seeking a conflicts of interest waiver with their former client, Leader Technologies.
  https://fbcoverup.com/docs/cyberhijack/cyber-hijack-findings.html#leader-engages-fenwick

Aug. 27, 2001  THIS ARTICLE: IBM and Harvard’s professor Charles M. Leiber go public on their collaboration to use nanotubes, nanobuds and nanowires to build more computers that are up to 10,000 times more processing power, among other applications.

Sep. 04, 2001  Robert S. Mueller III was sworn in as FBI Director by President George W. Bush.
  https://fbcoverup.com/docs/cyberhijack/cyber-hijack-findings.html#mueller-sworn-in-fbi-director

Sep. 11, 2001  September 11 attack.
  https://fbcoverup.com/docs/cyberhijack/cyber-hijack-findings.html#911

  https://fbcoverup.com/docs/cyberhijack/cyber-hijack-findings.html#stellar-wind

Oct. 16, 2001  President Bush created Executive Order 13231 - Critical Infrastructure Protection in the Information Age, and formed the National Infrastructure Advisory Council (NIAC)... the successor to the National Infrastructure Assurance Council (also NIAC) formed by Clinton E.O. 13130 on Jul. 14, 1999 to which he appointed Bill Gates and James P. Chandler III as directors the day before he left office on Jan. 19, 2001.
  https://fbcoverup.com/docs/cyberhijack/cyber-hijack-findings.html#eo13231-niac

Oct. 25, 2001  James P. Chandler III asked Leader Technologies, social networking inventor, to write a proposal for use of its invention in DARPA Command and Control.
  https://fbcoverup.com/docs/cyberhijack/cyber-hijack-findings.html#eo13231-niac
Oct. 26, 2001  USA Patriot Act signed.  [Link](https://fbcoverup.com/docs/cyberhijack/cyber-hijack-findings.html#patriot-act)

Oct. 31, 2001  NSA architect Williams Binney, resigned because the "NSA had gone rogue."  [Link](https://fbcoverup.com/docs/cyberhijack/cyber-hijack-findings.html#william-binney-resigned-nsa)

Nov. 07, 2001  IBM Eclipse released Version 1.0 using old IBM and Microsoft code.  [Link](https://fbcoverup.com/docs/cyberhijack/cyber-hijack-findings.html#william-binney-resigned-nsa)

Nov. 29, 2001  IBM Eclipse Foundation founded with $40 million "donation" by IBM chief intellectual property counsel David J. Kappos and IBM's chief outside counsel James P. Chandler, III.  [Link](https://fbcoverup.com/docs/cyberhijack/cyber-hijack-findings.html#ibm-eclipse-formed)

Dec. 30, 2001  Eurotech/James P. Chandler/CRYPTO.com was paid $1 million by Venzuelan Internet-telecom company without seeking a conflict of interest waiver of his client Leader Technologies, inventor of social networking.  [Link](https://fbcoverup.com/docs/cyberhijack/cyber-hijack-findings.html#eurotech-chandler-crypto-12-30-2001)
Carbon Nanotube Inter- and Intramolecular Logic Gates

V. Derycke, R. Martel, J. Appenzeller, and Ph. Avouris

Nano Letters 2001, 1, 9, 453-456 (Letter)
Publication Date (Web): August 26, 2001

Identification of Electron Donor States in N-Doped Carbon Nanotubes
Protein Tubule Immobilization on Self-Assembled Monolayers on Au Substrates

Hiroshi Matsui, Precila Porrata, and Gary E. Douberly

Nano Letters 2001, 1, 9, 461-464 (Letter)
Publication Date (Web): August 14, 2001

Binding of an Anti-Fullerene IgG Monoclonal Antibody to Single Wall Carbon Nanotubes

Bernard F. Erlanger, Bi-Xing Chen, Min Zhu, and Louis Brus

Nano Letters 2001, 1, 9, 465-467 (Letter)
Publication Date (Web): August 9, 2001
CdSe−ZnS Quantum Dots as Resonance Energy Transfer Donors in a Model Protein−Protein Binding Assay

Dale M. Willard, Lori L. Carillo, Jaemyeong Jung, and Alan Van Orden

*Nano Letters* 2001, 1, 9, 469-474 (Letter)
Publication Date (Web): August 2, 2001

Hybridization and Characteristics of Fe and Fe−Co Nanoparticles with Polymer Particles

X. G. Li, S. Takahashi, K. Watanabe, Y. Kikuchi, and M. Koishi

*Nano Letters* 2001, 1, 9, 475-480 (Letter)
Publication Date (Web): July 26, 2001

Controlled Synthesis of Polyhydroxyalkanoic (PHA) Nanostructures in *R. eutropha*

Aaron S. Kelley, Nikolaos V. Mantzaris, Prodromos Daoutidis, and Friedrich Srienc

*Nano Letters* 2001, 1, 9, 481-485 (Letter)
Publication Date (Web): July 27, 2001
Diameter Enlargement of HiPco Single-Wall Carbon Nanotubes by Heat Treatment

M. Yudasaka, H. Kataura, T. Ichihashi, L.-C. Qin, S. Kar, and S. Iijima

Nano Letters 2001, 1, 9, 487-489 (Letter)
Publication Date (Web): August 2, 2001

Covalently Bonded Organic Monolayers on a Carbon Substrate: A New Paradigm for Molecular Electronics

Srikanth Ranganathan, Ilson Steidel, Franklin Anariba, and Richard L. McCreery

Nano Letters 2001, 1, 9, 491-494 (Letter)
Publication Date (Web): August 4, 2001

Size-Based Protein Separations in Poly(ethylene glycol)-Derivatized Gold Nanotubule Membranes

Shufang Yu, Sang Bok Lee, Munsik Kang, and Charles R. Martin

Nano Letters 2001, 1, 9, 495-498 (Letter)
Heck Reactions Catalyzed by PAMAM-Dendrimer Encapsulated Pd(0) Nanoparticles

Enaam H. Rahim, Fadhil S. Kamounah, John Frederiksen, and Jørn B. Christensen

Nano Letters, 2001, 1, 9, 499-501 (Letter)
Publication Date (Web): August 1, 2001

Biaxial Flow-Induced Alignment of Silicate Layers in Polypropylene/Clay Nanocomposite Foam

Masami Okamoto, Pham Hoai Nam, Pralay Maiti, Tadao Kotaka, Takashi Nakayama, Mitsuko Takada, Masahiro Ohshima, Arimitsu Usuki, Naoki Hasegawa, and Hirotaka Okamoto

Nano Letters, 2001, 1, 9, 503-505 (Letter)
Publication Date (Web): August 8, 2001
Quantum Contact by Colliding 2D Fractal

S. Nakabayashi, H. Sakaguchi, R. Baba, and E. Fukushima

Nano Letters 2001, 1, 9, 507-510 (Letter)
Publication Date (Web): August 29, 2001

Abstract

Partners

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Charles M. Lieber, a chemistry professor at Harvard University, has been named coeditor of *Nano Letters*. He will share editorial responsibilities with the journal's founding editor, A. Paul Alivisatos, a chemistry and materials science professor at the University of California, Berkeley.

Since its first issue in 2001, "Nano Letters has rapidly emerged as a premier journal," according to Robert D. Bovenschulte, president of the American Chemical Society's Publications Division. "Submissions have now grown to the point where the editor needs help to cope with the volume and maintain the highest standards for quality."

Lieber was previously on *Nano Letters*’ editorial advisory board. "ACS is delighted that Professor Lieber has agreed to serve in this capacity," Bovenschulte remarks.

An established leader in the field of nanotechnology, Lieber is well known for his expertise in the fabrication and study of electronically functional nanostructures. He has received dozens of honors, including the ACS Award in the Chemistry of Materials and *Scientific American*’s award in nanotechnology. Last year, he was elected to membership in the National Academy of Sciences.

"I'm excited to work with Paul and ACS to continue to build the journal," Lieber tells C&EN. Lieber expects that *Nano Letters* will continue to publish interdisciplinary research in nanoscience and nanotechnology under his and Alivisatos’ guidance. He notes that there are a number of good journals geared toward publishing research in the booming area, and *Nano Letters* faces some tough competition. "We're really trying to make this the best nano-related journal that is out there," Lieber says.