

25 SEPTEMBER 1995

VOLUME 67 NUMBER 13

APPLIED PHYSICS LETTERS

NP1874500APL 067013 M10

PITTSBURGH, UNIV. OF
PHYSICS LIB.
208 OLD ENGINEERING HALL
PITTSBURGH, PA 15260

AMERICAN
INSTITUTE
OF PHYSICS



**DOCKET
ALARM**

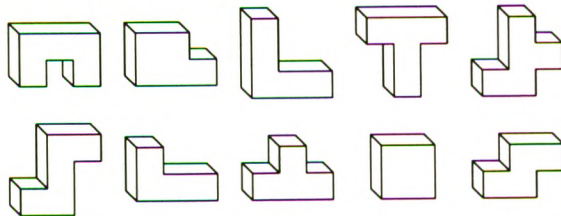
Find authenticated court documents without watermarks at docketalarm.com.

An Unexercised Mind May Become An Incapable Mind

Mental exercise may be as important to maintaining your mental acuity, as physical exercise is to maintaining your physical fitness. Organized Thinking can provide you with a constant source of problems and challenges to test and build your thinking skill. Two of our Puzzle Systems are presented below.

CUBE5™

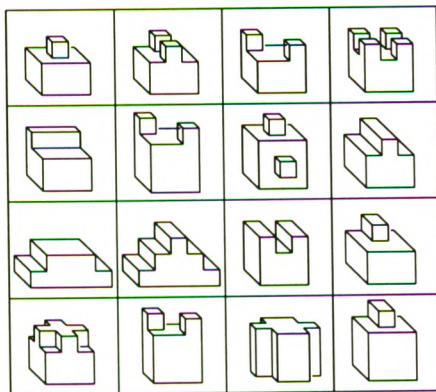
Assemble The 3x3x3 Cube,



and other problem shapes as well.

Use different selections of the ten wooden CUBE5 pieces to construct the 3x3x3 Cube, and other Problem Shapes as well. The CUBE5 Puzzle Booklet contains over fifty puzzles. Additional Puzzle Booklets with additional puzzles are also available. The 3x3x3 cube assembled out of six CUBE5 pieces is 2 1/4 inches on a side. Price: \$25.

Some of the Problem Shapes that you will be challenged to construct from selections of the CUBE5 pieces, are depicted below.



SCRAMBLE-20™

Exchange Letter Pieces in the columns

A	A	A	D	H	A	A	E	E	C	A	A	E
H	E	K	E	R	C	N	G	L	F	E	F	L
S	L	L	L	S	E	O	R	N	G	I	I	R
Y	O	N	Y	Y	O	T	T	T	Y	O	S	T

to find the English words in the rows.

Form words in the rows of the SCRAMBLE-20 puzzles by exchanging Letter Pieces in their columns. Advance through four-, five-, six-, seven- and eight-letter word SCRAMBLE-20 puzzles, with from 3 to 6 words in each Letter Rectangle. The SCRAMBLE-20 Puzzle Booklet contains over two hundred such puzzles. Additional SCRAMBLE-20 Puzzle Booklets are also available. SCRAMBLE-20 comes with 80 plastic letter pieces in four colors. Price: \$20.

The solutions to the three SCRAMBLE-20 Letter Rectangles depicted above are shown here.

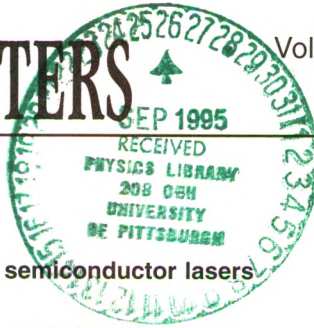
ALLY	HOTEL	CAFE
HAND	RANGE	FOIL
SEAL	SCOUT	GIST
YOKE	YEARN	YEAR

Here are two more SCRAMBLE-20 puzzles for you to try.

F	A	A	A	D	A	A	B	A	E	D
G	I	E	D	E	B	H	C	D	I	E
L	L	I	E	H	C	O	D	E	N	N
R	O	N	N	M	D	S	E	G	R	R
T	R	U	T	N	S	U	M	R	U	Y

To order CUBE5 or SCRAMBLE-20, or both, call 800-298-4947, or mail payment to our address below. Add \$5 for Shipping and Handling. (MA Residents add 5% Sales Tax.)

Organized Thinking 220 Bowdoin Street Newton, MA 02167



OPTICS

- 1797 **Chirp of passively and actively mode-locked semiconductor lasers**
M. Schell, J. Yu, M. Tsuchiya, T. Kamiya
- 1800 **Grating coupled multicolor quantum well infrared photodetectors**
M. Z. Tidrow, K. K. Choi, A. J. DeAnni, W. H. Chang, S. P. Svensson
- 1803 **Pulsed laser deposition of BaTiO₃ thin films and their optical properties**
D. H. Kim, H. S. Kwok
- 1806 **Optical heterodyne detection of 60 GHz electro-optic modulation from polymer waveguide modulators**
Wenshen Wang, Datong Chen, Harold R. Fetterman, Yongqiang Shi, William H. Steier, Larry R. Dalton, Pei-Ming D. Chow
- 1809 **Picosecond spectroscopy of optically modulated high-speed laser diodes**
D. H. Sutter, H. Schneider, S. Weisser, J. D. Ralston, E. C. Larkins
- 1812 **Double layers of single domains formed by rapid thermal annealing of proton-exchanged LiTaO₃**
Cangsang Zhao, Reinhart Engelmann
- 1815 **Laser diode pumped 106 mW blue upconversion fiber laser**
S. Sanders, R. G. Waarts, D. G. Mehuys, D. F. Welch
- 1818 **New nonlinear optical crystal: Cesium lithium borate**
Yusuke Mori, Ikuo Kuroda, Satoshi Nakajima, Takatomo Sasaki, Sadao Nakai
- 1821 **Wavelength insensitive passive polarization converter fabricated by poled polymer waveguides**
Min-Cheol Oh, Sang-Yung Shin, Wol-Yon Hwang, Jang-Joo Kim
- 1824 **Physical modeling of pyrometric interferometry during molecular beam epitaxial growth of III-V layered structures**
H. P. Lee, E. Ranalli, X. Liu

FLUIDS, PLASMAS, AND ELECTRICAL DISCHARGES

- 1827 **Generalized formula for the surface stiffness of fluid-saturated porous media containing parallel pore channels**
Peter B. Nagy, Adnan H. Nayfeh

CONDENSED MATTER: STRUCTURE, MECHANICAL AND THERMAL PROPERTIES

- 1830 **Characterization of structural defects in wurtzite GaN grown on 6H SiC using plasma-enhanced molecular beam epitaxy**
David J. Smith, D. Chandrasekhar, B. Sverdlov, A. Botchkarev, A. Salvador, H. Morkoç
- 1833 **Stress evolution during the growth of ultrathin layers of iron and iron silicide on Si(111)**
D. Sander, A. Enders, J. Kirschner
- 1836 **Epitaxial electro-optical Sr_xBa_{1-x}Nb₂O₆ films by single-source plasma-enhanced metalorganic chemical vapor deposition**
L. D. Zhu, J. Zhao, F. Wang, Peter E. Norris, G. D. Fogarty, B. Steiner, P. Lu, B. Kear, S. B. Kang, B. Gallois, M. Sinclair, D. Dimos, M. Cronin-Golomb
- 1839 **Effects of hydrogen addition and growth-etch cycling on the oxy-acetylene torch deposition of homoepitaxial diamond**
R. A. Weimer, T. P. Thorpe, K. A. Snail, C. E. Merzbacher
- 1841 **Electron spin resonance observations of excimer-laser-induced paramagnetic centers in tellurite glasses**
J. D. Prohaska, J. Li, J. S. Wang, R. H. Bartram
- 1844 **Surface acoustic wave reflections from a proton exchanged dispersive dot array**
Suneet Tuli, A. B. Bhattacharyya, D. Fournier
- 1847 **Evidence of interstitial location of Er atoms implanted into silicon**
A. Kozanecki, R. J. Wilson, B. J. Sealy, J. Kaczanowski, L. Nowicki

- 1850 Relationship between self-organization and size of InAs islands on InP(001) grown by gas-source molecular beam epitaxy
- 1853 Synthesis of oriented textured diamond films on silicon via hot filament chemical vapor deposition
- 1856 High quality InGaN films by atomic layer epitaxy

A. Ponchet, A. Le Corre, H. L'Haridon,
B. Lambert, S. Salaün
Qijin Chen, Jie Yang, Zhangda Lin

K. S. Boutros, F. G. McIntosh,
J. C. Roberts, S. M. Bedair,
E. L. Piner, N. A. El-Masry

SEMICONDUCTORS

- 1859 Improved thermal stability of AlGaAs-GaAs quantum well heterostructures using a "blocking" Zn diffusion to reduce column-III vacancies
- 1862 Near-field optical beam induced current measurements on heterostructures
- 1865 Growth of germanium-carbon alloys on silicon substrates by molecular beam epitaxy
- 1868 High-power InGaN single-quantum-well-structure blue and violet light-emitting diodes
- 1871 The fabrication of quantum wire structures through application of CCl_4 towards lateral growth rate control of GaAs on patterned GaAs substrates
- 1874 Photoluminescence studies of single submonolayer InAs structures grown on GaAs (001) matrix
- 1877 High aspect ratio submicron silicon pillars fabricated by photoassisted electrochemical etching and oxidation
- 1880 Effects of electron cyclotron resonance plasma thermal oxidation on the properties of polycrystalline silicon film
- 1883 Measurement of the minority carrier mobility in the base of heterojunction bipolar transistors using a magnetotransport method
- 1885 Comparative analysis of the optical quality of single $\text{In}_{0.1}\text{Ga}_{0.9}\text{As}/\text{Al}_{0.33}\text{Ga}_{0.67}\text{As}$ quantum wells grown by molecular beam epitaxy on (100) and (311) GaAs substrates
- 1888 Photoluminescence and microstructure of self-ordered grown SiGe/Si quantum wires
- 1891 Eu-doped CaF_2 grown on Si(100) substrates by molecular beam epitaxy
- 1894 Minority carrier lifetime improvement by gettering in $\text{Si}_{1-x}\text{Ge}_x$
- 1896 Reduction of recombination current in CdTe/CdS solar cells
- 1899 The electronic structure and energy level alignment of porphyrin/metal interfaces studied by ultraviolet photoelectron spectroscopy
- 1902 Temperature dependence of the etch rate and selectivity of silicon nitride over silicon dioxide in remote plasma NF_3/Cl_2
- 1905 Band filling at low optical power density in semiconductor dots
- 1908 Investigation of high-field domain formation in tight-binding superlattices by capacitance-voltage measurements
- 1911 High quality single and double two-dimensional electron gases

M. R. Krames, A. D. Minervini,
E. I. Chen, N. Holonyak, Jr.,
J. E. Baker

M. S. Ünlü, B. B. Goldberg,
W. D. Herzog, D. Sun, E. Towe

J. Kolodzey, P. A. O'Neil, S. Zhang,
B. A. Orner, K. Roe, K. M. Unruh,
C. P. Swann, M. M. Waite,
S. Ismat Shah

Shuji Nakamura, Masayuki Senoh,
Naruhito Iwasa, Shin-ichi Nagahama

Yong Kim, Yang Keun Park,
Moo-Sung Kim, Joon-Mo Kang,
Seong-II Kim, Seong-Min Hwang,
Suk-Ki Min

Wei Li, Zhanguo Wang, Jiben Liang,
Bo Xu, Zhanping Zhu, Zhiliang Yuan,
Jian Li

H. W. Lau, G. J. Parker, R. Greef,
M. Hölling

Jung-Yeal Lee, Chul-Hi Han,
Choong-Ki Kim, Bok-Ki Kim

Y. Betser, D. Ritter, G. Bahir,
S. Cohen, J. Sperling

O. Brandt, K. Kanamoto, M. Tsugami,
T. Isu, N. Tsukada

A. Hartmann, C. Dieker, R. Loo,
L. Vescan, H. Lüth, U. Bangert

X. M. Fang, T. Chatterjee,
P. J. McCann, W. K. Liu, M. B. Santos,
W. Shan, J. J. Song

B. R. Losada, A. Moehlecke,
R. Lagos, A. Luque

D. M. Oman, K. M. Dugan,
J. L. Killian, V. Ceekala,
C. S. Ferekides, D. L. Morel

S. Narioka, H. Ishii, D. Yoshimura,
M. Sei, Y. Ouchi, K. Seki,
S. Hasegawa, T. Miyazaki, Y. Harima,
K. Yamashita

J. Staffa, D. Hwang, B. Luther,
J. Ruzyllo, R. Grant

P. Castrillo, D. Hessman, M.-E. Pistol,
S. Anand, N. Carlsson, W. Seifert,
L. Samuelson

Z. Y. Han, S. F. Yoon,
K. Radhakrishnan, D. H. Zhang

H. C. Chui, B. F. Hammons

1914 Intensity-dependent energy and line shape variation of donor-acceptor-pair bands in ZnSe:N at different compensation levels

P. Bäume, J. Gutowski, D. Wiesmann, R. Heitz, A. Hoffmann, E. Kurtz, D. Hommel, G. Landwehr

SUPERCONDUCTORS

1917 Extended function of a high- T_c transition edge bolometer on a micromachined Si membrane

H. Neff, J. Laukemper, G. Hefle, M. Burnus, T. Heidenblut, W. Michalke, E. Steinbeiss

1920 Deposition of high quality $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ films on ultrathin ($12 \mu\text{m}$ thick) sapphire substrates for infrared detector applications

A. Piqué, K. S. Harshavardhan, J. Moses, M. Mathur, T. Venkatesan, J. C. Brasunas, B Lakew

1923 Generation of 24.0 T at 4.2 K and 23.4 T at 27 K with a high-temperature superconductor coil in a 22.54 T background field

K. Ohkura, K. Sato, M. Ueyama, Jun Fujikami, Y. Iwasa

1926 Biomagnetic measurements using low-noise integrated SQUID magnetometers operating in liquid nitrogen

M. S. Dilorio, K-Y. Yang, S. Yoshizumi

1929 Correlation of critical current and resistance fluctuations in bicrystal grain boundary Josephson junctions

A. Marx, U. Fath, L. Alff, R. Gross

1932 Determination of pinning strength of $\text{YBa}_2\text{Cu}_3\text{O}_{7-\delta}$ from magnetic stiffness measurements

Beate Lehdorff, Hans-Gerd Kürschner, Bernhard Lücke

1935 Disorder and synchronization in a Josephson junction plaquette

A. S. Landsberg, Y. Braiman, K. Wiesenfeld

MAGNETISM

1938 History dependent domain structures in giant-magnetoresistive multilayers

H. T. Hardner, M. B. Weissman, S. S. P. Parkin

PAPERS IN OTHER FIELDS

1941 Ferroelectric phase transition temperatures of KTiOPO_4 crystals grown from self-fluxes

N. Angert, M. Tseitlin, E. Yashchin, M. Roth

COMMENTS

1944 Comment on "Phase transformation of cobalt induced by ball milling" [Appl. Phys. Lett. 66, 308 (1995)]

G. Mazzone

1945 Response to "Comment on 'Phase transformation of cobalt induced by ball milling'" [Appl. Phys. Lett. 67, 1944 (1995)]

J. Y. Huang, Y. K. Wu, H. Q. Ye

1947 CUMULATIVE AUTHOR INDEX

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.