

Journal of Vacuum Science & Technology

Volume 17, Number 6
November/December 1980

devoted to **Vacuum, Surface, Thin Film, and Interface Science & Technology**

xxxi **Obituary: Medard William Welch**

ARTICLES

- 1287 **Transition metal compound surfaces I: The cubic sodium tungsten bronze (Na_xWO_3) surface** M. A. Langell, S. L. Bernasek
- 1296 **Transition metal compound surfaces II: The tungsten trioxide single crystal surface** M. A. Langell, S. L. Bernasek
- 1303 **The Si(111)-Pd interface: Spectroscopic evidence of chemical processes at liquid nitrogen temperature** I. Abbati, L. Braicovich, B. De Michelis, U. del Pennino
- 1306 **Phosphorus concentration in hydrogenated amorphous silicon using ion-implanted references** J. H. Thomas, III
- 1309 **X-ray photoelectron spectroscopy study of the surface adsorption of lead naphthenate** P. A. Bertrand, P. D. Fleischauer

Subscription Prices (1980)

	U.S.A. and Poss.	Foreign (incl. Can. and Mex.)	Optional air freight Europe, Mideast, N. Africa	Asia and Oceania
Nonmembers	\$55.00	\$60.00	\$68.00	\$75.00

Back-Number Prices: Single copy \$10; Proceedings Issues \$15.

Subscriptions, renewals, orders for back numbers, and change of address should be addressed to the American Institute of Physics, 500 Sunnyside Blvd., Woodbury, N.Y. 11797. For your convenience an address change form appears in each issue of *Physics Today*; please use it. Preferably include old and new addresses as well as a recent AIP address label. Please allow six weeks advance notice. Requests from subscribers for missing journal issues will be honored without charge only if received within six months of the issue's actual date of publication; otherwise, the issue may be purchased at the single copy price.

Reprints of individual articles in this journal may be ordered singly at \$0.50 per page (orders filled in 24 hours) from the American Institute of Physics, Current Physics Reprints, 335 East 45th Street, New York, NY 10017.

Copying Fees: The code at the bottom of the first page of each article in this journal gives the fee for each copy of the article made beyond the free copying permitted under the 1978 US Copyright Law. (See also the statement under "Copyright.") This fee can be paid to the American Institute of Physics through the *Copyright Clearance Center, Inc., 21 Congress Street, Salem, MA 01970*. For articles published before 1978 the copying fee is \$0.25 per article.

Microfilm Subscriptions of complete volumes of the **Journal of Vacuum Sciences and Technology** are available in 16 mm and 35 mm format. The journal also appears in Sec. 1 of *Current Physics Microform (CPM)* along with 18 other primary journals published by the American Institute of Physics. CPM Sec. 1 is available at an annual subscription for \$2450 (domestic) and \$2550 (foreign).

- | | | |
|------|---|--|
| 1315 | AES study of tin-lead alloys: Effects of ion sputtering and oxidation on surface composition and structure | R. P. Frankenthal,
D. J. Siconolfi |
| 1320 | Surface texturing of copper by sputter etching with applications for solar selective absorbing surfaces | P. M. Curmi,
G. L. Harding |
| 1326 | Copper distribution in sputtered Al/Cu films | D. R. Denison,
L. D. Hartsough |
| 1332 | Emission spectroscopy of glow-discharge and sputtering plasmas used in amorphous Si:H film deposition | M. A. Paesler,
T. Okumura, W. Paul |
| 1336 | Operation modes and its optical measurements of plasma stream transport system | T. Tsuchimoto |
| 1341 | Etching and film formation in CF₃Br plasmas: some qualitative observations and their general implications | D. L. Flamm, P. L. Cowan,
J. A. Golovchenko |
| 1348 | Gas plasma etching of ion implanted chromium films | T. Yamazaki, Y. Suzuki,
H. Nakata |
| 1351 | Plasma etching characteristics of chromium film and its novel etching mode | H. Nakata, K. Nishioka,
H. Abe |
| 1358 | Ambient effects on the out-diffusion of GaAs through thin gold films | C.-A. Chang, N. J. Chou |
| 1360 | Construction and performance characteristics of a low cost energy prefilter | J. H. Craig, Jr., J. L. Hock |
| 1364 | Energy-selective SESD imaging utilizing a CMA | L. A. Larson, F. Soria,
H. Poppa |
| 1367 | Single crystal LaB₆ electron gun for variably shaped electron beam optics | M. Nakasuji, H. Wada |
| 1373 | Ti getter study | D. Edwards, Jr., C. Lanni |

COMMUNICATIONS

- | | | |
|------|--|------------------------------------|
| 1375 | Nonresonant charge transfer in ion-surface scattering | R. S. Bhattacharya |
| 1376 | SnO₂+Al₂O₃ continuous dynode electron-multiplier | P. W. Mahajan,
S. V. Bhorkar |
| 1377 | Outgassing characteristics of TiC and TiB₂ coated graphite | J. H. Craig, Jr. |
| 1378 | A simple method of end-point determination for plasma etching | M. L. Hitchman,
V. Eichenberger |