

# Stanford

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## R Pease

The William E. Ayer Professor in Electrical Engineering, Emeritus

 Resume available Online

### CONTACT INFORMATION

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### Bio

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#### BIO

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#### ACADEMIC APPOINTMENTS

- Emeritus Faculty, Acad Council, Electrical Engineering

### Teaching

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#### STANFORD ADVISEES

##### Doctoral Dissertation Reader (AC)

James Skelly

### Publications

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#### PUBLICATIONS

- **Dielectric laser acceleration of sub-100 keV electrons with silicon dual-pillar grating structures** *OPTICS LETTERS*  
Leedle, K. J., Ceballos, A., Deng, H., Solgaard, O., Pease, R. F., Byer, R. L., Harris, J. S.  
2015; 40 (18): 4344-4347
- **Laser acceleration and deflection of 96.3 keV electrons with a silicon dielectric structure** *OPTICA*  
Leedle, K. J., Pease, R. F., Byer, R. L., Harris, J. S.  
2015; 2 (2): 158-161
- **Heat Transfer in Microchannels-2012 Status and Research Needs** *JOURNAL OF HEAT TRANSFER-TRANSACTIONS OF THE ASME*  
Kandlikar, S. G., Colin, S., Peles, Y., Garimella, S., Pease, R. F., Brandner, J. J., Tuckerman, D. B.  
2013; 135 (9)
- **Low-Temperature Monolithic Three-Layer 3-D Process for FPGA** *IEEE ELECTRON DEVICE LETTERS*  
Zhang, Z., Chen, C., Crnogorac, F., Chen, S., Griffin, P. B., Pease, R. F., Plummer, J. D., Wong, S. S.  
2013; 34 (8): 1044-1046
- **Thermally controlled alignment for wafer-scale lithography** *JOURNAL OF MICRO-NANOLITHOGRAPHY MEMS AND MOEMS*  
Moon, E. E., Chandorkar, S. A., Sreenivasan, S. V., Pease, R. F.

2013; 12 (3)

- **Single Cell Profiling of Circulating Tumor Cells: Transcriptional Heterogeneity and Diversity from Breast Cancer Cell Lines** *PLOS ONE*  
Powell, A. A., Talasaz, A. H., Zhang, H., Coram, M. A., Reddy, A., Deng, G., Telli, M. L., Advani, R. H., Carlson, R. W., Mollick, J. A., Sheth, S., Kurian, A. W., Ford, et al  
2012; 7 (5)
- **Cooling Three-Dimensional Integrated Circuits using Power Delivery Networks** *IEEE International Electron Devices Meeting (IEDM)*  
Wei, H., Wu, T. F., Sekar, D., Cronquist, B., Pease, R. F., Mitra, S.  
IEEE.2012
- **Comment on "Ultra-high secondary electron emission of carbon nanotubes" [Appl. Phys. Lett. 96, 213113, (2010)]** *APPLIED PHYSICS LETTERS*  
ALAM, M. K., Pease, R. F., Nojeh, A.  
2011; 98 (6)
- **Sub-15 nm Photo-electron Source Using a Nano-aperture Integrated with a Nano-antenna** *Conference on Lasers and Electro-Optics (CLEO)*  
Cheng, Y., Takashima, Y., Maldonado, J. R., Scipioni, L., Ferranti, D., Pianetta, P. A., Hesselink, L., Pease, R. F.  
IEEE.2011
- **Semiconductor crystal islands for three-dimensional integration** *54th International Conference on Electron, Ion and Photon Beam Technology and Nanofabrication*  
Crnogorac, F., Wong, S., Pease, R. F.  
A V S AMER INST PHYSICS.2010: C6P53-C6P58
- **Optical and computed evaluation of keyhole diffractive imaging for lensless x-ray microscopy** *54th International Conference on Electron, Ion and Photon Beam Technology and Nanofabrication*  
Dai, B., Zhu, D., Jaroensri, R., Kulalert, K., Pianetta, P., Pease, R. F.  
A V S AMER INST PHYSICS.2010: C6Q1-C6Q5
- **Nondestructive detection of deviation in integrated circuits** *54th International Conference on Electron, Ion and Photon Beam Technology and Nanofabrication*  
Baghaei, L., Dai, B., Pianetta, P., Pease, R. F.  
A V S AMER INST PHYSICS.2010: C6Q25-C6Q27
- **On the fabrication of three-dimensional silicon-on-insulator based optical phased array for agile and large angle laser beam steering systems** *54th International Conference on Electron, Ion and Photon Beam Technology and Nanofabrication*  
Hosseini, A., Kwong, D., Zhang, Y., Chandorkar, S. A., Crnogorac, F., Carlson, A., Fallah, B., Bank, S., Tutuc, E., Rogers, J., Pease, R. F., Chen, R. T.  
A V S AMER INST PHYSICS.2010: C6O1-C6O7
- **Iterative phase recovery using wavelet domain constraints** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY B*  
Baghaei, L., Rad, A., Dai, B., Pianetta, P., Miao, J., Pease, R. F.  
2009; 27 (6): 3192-3195
- **Unequally Spaced Waveguide Arrays for Silicon Nanomembrane-Based Efficient Large Angle Optical Beam Steering** *IEEE JOURNAL OF SELECTED TOPICS IN QUANTUM ELECTRONICS*  
Hosseini, A., Kwong, D., Zhao, Y., Chen, Y., Crnogorac, F., Pease, R. F., Chen, R. T.  
2009; 15 (5): 1439-1446
- **Isolating highly enriched populations of circulating epithelial cells and other rare cells from blood using a magnetic sweeper device** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*  
Talasaz, A. H., Powell, A. A., Huber, D. E., Berbee, J. G., Roh, K., Yu, W., Xiao, W., Davis, M. M., Pease, R. F., Mindrinos, M. N., Jeffrey, S. S., Davis, R. W.  
2009; 106 (10): 3970-3975
- **Prospects of free electron analog to digital technology** *52nd International Conference on Electron, Ion and Photon Beam Technology and Nanofabrication*  
Aldana, R., Pease, R. F.  
A V S AMER INST PHYSICS.2008: 2592-95

- **X-ray diffraction microscopy: Reconstruction with partial magnitude and spatial a priori information** *52nd International Conference on Electron, Ion and Photon Beam Technology and Nanofabrication*  
Rad, L. B., Downes, I., Dai, B., Zhu, D., Scherz, A., Ye, J., Pianetta, P., Pease, R. F.  
A V S AMER INST PHYSICS.2008: 2362–66
- **Pulsed laser techniques for nanographoepitaxy** *52nd International Conference on Electron, Ion and Photon Beam Technology and Nanofabrication*  
Crnogorac, F., Witte, D. J., Pease, R. F.  
A V S AMER INST PHYSICS.2008: 2520–23
- **Preferential orientation effects in partial melt laser crystallization of silicon** *52nd International Conference on Electron, Ion and Photon Beam Technology and Nanofabrication*  
Witte, D. J., Masbou, M. P., Crnogorac, F., Pease, R. F., Pickard, D. S.  
A V S AMER INST PHYSICS.2008: 2455–59
- **Photoemission from single-walled carbon nanotubes** *JOURNAL OF APPLIED PHYSICS*  
Nojeh, A., Ioakeimidi, K., Sheikhaei, S., Pease, R. F.  
2008; 104 (5)
- **Secondary electron detection for distributed axis electron beam systems** *MICROELECTRONIC ENGINEERING*  
Tanimoto, S., Pickard, D. S., Kenney, C., Pease, R. F.  
2008; 85 (8): 1786-1791
- **Spatial Quantized Analog-to-Digital Conversion Based on Optical Beam-Steering** *JOURNAL OF LIGHTWAVE TECHNOLOGY*  
Jarrahi, M., Pease, R. F., Lee, T. H.  
2008; 26 (13-16): 2219-2226
- **Demonstration of secondary electron detection using monolithic multi-channel electron detector** *20th International Microprocesses and Nanotechnology Conference*  
Tanimoto, S., Pickard, D. S., Kenney, C., Hasi, J., Pease, R. F.  
JAPAN SOC APPLIED PHYSICS.2008: 4913–17
- **Lithography and other patterning techniques for future electronics** *PROCEEDINGS OF THE IEEE*  
Pease, R. F., Chou, S. Y.  
2008; 96 (2): 248-270
- **Significant advances in scanning electron microscopes (1965-2007)** *ADVANCES IN IMAGING AND ELECTRON PHYSICS, VOL 150*  
Pease, R. F.  
2008; 150: 53-86
- **Real time simulation of heat detection in DNA Thermosequencing** *3rd IEEE Sensors Applications Symposium*  
Esfandyarpour, H., Zheng, B., Pease, R. F., Davis, R. W.  
IEEE.2008: 89–94
- **Metal-semiconductor-metal electron detectors** *51st International Conference on Electron, Ion, and Photon Beam Technology and Nanofabrication*  
Aldana, R., Pease, R. F.  
A V S AMER INST PHYSICS.2007: 2077–80
- **CsBr/GaN heterojunction photoelectron source** *51st International Conference on Electron, Ion, and Photon Beam Technology and Nanofabrication*  
Maldonado, J. R., Liu, Z., Sun, Y., Schuetter, S., Pianetta, P., Pease, R. F.  
A V S AMER INST PHYSICS.2007: 2266–70
- **Rapid partial melt crystallization of silicon for monolithic three-dimensional integration** *51st International Conference on Electron, Ion, and Photon Beam Technology and Nanofabrication*  
Witte, D. J., Pickard, D. S., Crnogorac, F., Pianetta, P., Pease, R. F.  
A V S AMER INST PHYSICS.2007: 1989–92
- **Monolithic multichannel secondary electron detector for distributed axis electron beam lithography and inspection** *51st International Conference on Electron, Ion, and Photon Beam Technology and Nanofabrication*  
Pickard, D. S., Kenney, C., Tanimoto, S., Crane, T., Groves, T., Pease, R. F.

A V S AMER INST PHYSICS.2007: 2277–83

- **Economic approximate models for backscattered electrons** *51st International Conference on Electron, Ion, and Photon Beam Technology and Nanofabrication*  
Rad, L. B., Downes, I., Ye, J., Adler, D., Pease, R. F.  
A V S AMER INST PHYSICS.2007: 2425–29
- **High current density GaN/CsBr heterojunction photocathode with improved photoyield** *APPLIED PHYSICS LETTERS*  
Liu, Z., Sun, Y., Pianetta, P., Maldonado, J. R., Pease, R. F., Schuetter, S.  
2007; 90 (23)
- **Lamellar crystallization of silicon for 3-dimensional integration** *32nd International Conference on Micro- and Nano-Engineering*  
Witte, D. J., Crnogorac, F., Pickard, D. S., Mehta, A., Liu, Z., Rajendran, B., Pianetta, P., Pease, R. F.  
ELSEVIER SCIENCE BV.2007: 1186–89
- **Nano-graphoepitaxy of semiconductors for 3D integration** *32nd International Conference on Micro- and Nano-Engineering*  
Crnogorac, F., Witte, D. J., Xia, Q., Rajendran, B., Pickard, D. S., Liu, Z., Mehta, A., Sharma, S., Yasseri, A., Kamins, T. I., Chou, S. Y., Pease, R. F.  
ELSEVIER SCIENCE BV.2007: 891–94
- **Low thermal budget processing for sequential 3-D IC fabrication** *IEEE TRANSACTIONS ON ELECTRON DEVICES*  
Rajendran, B., Shenoy, R. S., Witte, D. J., Chokshi, N. S., DeLeon, R. L., Tompa, G. S., Pease, R. F.  
2007; 54 (4): 707-714
- **High-speed scanning electron Microscopy using distributed-axis electron optics** *20th International Microprocesses and Nanotechnology Conference*  
Pease, R. F., Pickard, D. S., Tanimoto, S.  
JAPAN SOCIETY APPLIED PHYSICS.2007: 414–415
- **Field-electron emission from single-walled carbon nanotubes lying on a surface** *2007 CANADIAN CONFERENCE ON ELECTRICAL AND COMPUTER ENGINEERING, VOLS 1-3*  
Nojeh, A., Pease, R. F.  
2007: 1294-1297
- **Traveling wave spatial quantized analog-to-digital conversion** *IEEE/MTT-S International Microwave Symposium*  
Jarrahi, M., Pease, R. F., Lee, T. H.  
IEEE.2007: 225–228
- **Optical Spatially Quantized High Performance Analog-to-digital Conversion** *Conference on Lasers and Electro-Optics/Quantum Electronics and Laser Science Conference*  
Jarrahi, M., Miller, D. A., Pease, R. F., Lee, T. H.  
IEEE.2007: 987–988
- **Computational scanning electron microscopy** *International Conference on Frontiers of Characterization and Metrology for Nanoelectronics*  
Rad, L. B., Feng, H., Ye, J., Pease, R. F.  
AMER INST PHYSICS.2007: 512–517
- **Effect of nanoimprinted surface relief on Si and Ge nucleation and ordering** *6th International Workshop on Epitaxial Semiconductors on Patterned Substrates and Novel Index Surfaces (ESPS-NIS 2006)*  
Kamins, T. I., Yasseri, A. A., Sharma, S., Pease, R. F., Xia, Q., Chou, S. Y.  
ELSEVIER SCI LTD.2006: 1481–85
- **Pattern reconstruction of scanning electron microscope images using long-range content complexity analysis of the edge ridge signal** *50th International Conference on Electron, Ion, and Photon Beam Technology and Nanofabrication*  
Feng, H., Ye, J., Pease, R. F.  
A V S AMER INST PHYSICS.2006: 3110–14
- **Alkylsiloxane self-assembled monolayer formation guided by nanoimprinted Si and SiO<sub>2</sub> templates** *APPLIED PHYSICS LETTERS*  
Yasseri, A. A., Sharma, S., Kamins, T. I., Xia, Q., Chou, S. Y., Pease, R. F.  
2006; 89 (15)
- **CsBr photocathode at 257 nm: A rugged high current density electron source** *APPLIED PHYSICS LETTERS*

- Liu, Z., Maldonado, J., Sun, Y., Pianetta, P., Pease, R. F.  
2006; 89 (11)
- **Shot noise models for sequential processes and the role of lateral mixing** *49th International Conference on Electron, Ion, and Photon Beam Technology and Nanofabrication*  
Neureuther, A. R., Pease, R. F., Yuan, L., Parizi, K. B., Esfandyarpour, H., Poppe, W. J., Liddle, J. A., Anderson, E. H.  
A V S AMER INST PHYSICS.2006: 1902–8
  - **Parameters and mechanisms governing image contrast in scanning electron microscopy of single-walled carbon nanotubes** *SCANNING*  
Wong, W. K., Nojeh, A., Pease, R. F.  
2006; 28 (4): 219-227
  - **Direct, in-scanner, aerial image sensing** *31st International Conference on Micro- and Nano-Engineering*  
Pease, R. F.  
ELSEVIER SCIENCE BV.2006: 1030–35
  - **Ab initio modeling of the interaction of electron beams and single-walled carbon nanotubes** *PHYSICAL REVIEW LETTERS*  
Nojeh, A., Shan, B., Cho, K., Pease, R. F.  
2006; 96 (5)
  - **Segmentation-assisted edge extraction algorithms for SEM images** *26th Annual BACUS Symposium on Photomask Technology*  
Feng, H., Ye, J., Pease, R. F.  
SPIE-INT SOC OPTICAL ENGINEERING.2006
  - **Self inspection of integrated circuits pattern defects using support vector machines** *49th International Conference on Electron, Ion, and Photon Beam Technology and Nanofabrication*  
Feng, H. Y., Ye, J., Pease, R. F.  
A V S AMER INST PHYSICS.2005: 3085–89
  - **Reconstruction of pattern images from scanning electron microscope images** *49th International Conference on Electron, Ion, and Photon Beam Technology and Nanofabrication*  
Feng, H. Y., Ye, J., Pease, R. F.  
A V S AMER INST PHYSICS.2005: 3080–84
  - **Narrow cone emission from negative electron affinity photocathodes** *49th International Conference on Electron, Ion, and Photon Beam Technology and Nanofabrication*  
Liu, Z., Sun, Y., Pianetta, P., Pease, R. F.  
A V S AMER INST PHYSICS.2005: 2758–62
  - **Maskless lithography** *30th International Conference on Micro and Nano Engineering*  
Pease, R. F.  
ELSEVIER SCIENCE BV.2005: 381–392
  - **Distributed-axis electron beam optics for fast inspection** *16th Annual Scanning Conference*  
Pease, R. F., Pickard, D.  
WILEY-BLACKWELL.2005: 67–67
  - **Parameters and mechanisms governing image contrast in the scanning electron microscopy of carbon nanotubes** *16th Annual Scanning Conference*  
Wong, W. K., Nojeh, A., Pease, R. F.  
WILEY-BLACKWELL.2005: 87–88
  - **Photoelectronic analog-to-digital conversion: Sampling and quantizing at 100 Gs/s** *IEEE TRANSACTIONS ON MICROWAVE THEORY AND TECHNIQUES*  
Ioakeimidi, K., Leheny, R. F., Gradinaru, S., Bolton, P. R., Aldana, R., Ma, K., Clendenin, J. E., Harris, J. S., Pease, R. F.  
2005; 53 (1): 336-342
  - **Subpicosecond jitter in picosecond electron bunches** *48th International Conference on Electron, Ion and Photon Beam Technology and Nanofabrication*  
Ioakeimidi, K., Gradinaru, S., Liu, Z., Machuca, F., Nielsen, J. F., Aldana, R., Bolton, R. P., Clendenin, J., Leheny, R., Pease, R. F.  
A V S AMER INST PHYSICS.2005: 196–200

- 
- **Electron beam stimulated field-emission from single-walled carbon nanotubes** *48th International Conference on Electron, Ion and Photon Beam Technology and Nanofabrication*  
Nojeh, A., Wong, W. K., Yieh, E., Pease, R. F., DAI, H. J.  
A V S AMER INST PHYSICS.2004: 3124–27
  - **Reaching for the bottom: The evolution of EIPBN** *48th International Conference on Electron, Ion and Photon Beam Technology and Nanofabrication*  
Smith, H. I., Pease, R. F.  
A V S AMER INST PHYSICS.2004: 2882–84
  - **Dynamic self-inspection of integrated circuit pattern defects** *48th International Conference on Electron, Ion and Photon Beam Technology and Nanofabrication*  
Feng, H. Y., Ye, J., Pease, R. F.  
A V S AMER INST PHYSICS.2004: 3373–77
  - **Electric-field-directed growth of carbon nanotubes in two dimensions** *48th International Conference on Electron, Ion and Photon Beam Technology and Nanofabrication*  
Nojeh, A., Ural, A., Pease, R. F., DAI, H. J.  
A V S AMER INST PHYSICS.2004: 3421–25
  - **Self-inspection of IC pattern defects** *48th International Conference on Electron, Ion and Photon Beam Technology and Nanofabrication*  
Feng, H. Y., Ye, J., Pease, R. F.  
A V S AMER INST PHYSICS.2004: 3386–89
  - **Electron scattering study within the depletion region of the GaN(0001) and the GaAs(100) surface** *APPLIED PHYSICS LETTERS*  
Liu, Z., Machuca, F., Pianetta, P., SPICER, W. E., Pease, R. F.  
2004; 85 (9): 1541-1543
  - **Scanning electron microscopy of field-emitting individual single-walled carbon nanotubes** *APPLIED PHYSICS LETTERS*  
Nojeh, A., Wong, W. K., Baum, A. W., Pease, R. F., Dai, H.  
2004; 85 (1): 112-114
  - **Induced thermal stress fields for three-dimensional distortion control of Si wafer topography** *REVIEW OF SCIENTIFIC INSTRUMENTS*  
Schaper, C. D., Chen, B. D., Pease, R. F.  
2004; 75 (6): 1997-2002
  - **Electrical test structures for mapping nanometer-scale pattern placement errors** *47th International Conference on Electron, Ion and Photon Beam Technology and Nanofabrication*  
Wang, F. M., Pease, R. F.  
A V S AMER INST PHYSICS.2004: 12–15
  - **Towards higher-resolution scanning electron microscopy** *ADVANCES IN IMAGING AND ELECTRON PHYSICS, VOL 133*  
Pease, R. F.  
2004; 133: 187-193
  - **Electron beam induced conductivity in poly(methylmethacrylate) and SiO<sub>2</sub> thin films** *47th International Conference on Electron, Ion and Photon Beam Technology and Nanofabrication*  
Bai, M., Pease, R. F., Meisburger, D.  
A V S AMER INST PHYSICS.2003: 2638–44
  - **Transient temperature measurements of resist heating using nanothermocouples** *47th International Conference on Electron, Ion and Photon Beam Technology and Nanofabrication*  
Chu, D. C., Wong, W. K., Goodson, K. E., Pease, R. F.  
A V S AMER INST PHYSICS.2003: 2985–89
  - **Photoelectronic analog-to-digital conversion using miniature electron optics: Basic design considerations** *47th International Conference on Electron, Ion and Photon Beam Technology and Nanofabrication*  
Pease, R. F., loakeimidi, K., Aldana, R., Leheny, R.  
A V S AMER INST PHYSICS.2003: 2826–29

- **Effect of oxygen adsorption on the efficiency of magnesium photocathodes** *47th International Conference on Electron, Ion and Photon Beam Technology and Nanofabrication*  
Yuan, Q., Baum, A. W., Pease, R. F., Pianetta, P.  
A V S AMER INST PHYSICS.2003: 2830–33
- **Distributed axis electron beam technology for maskless lithography and defect inspection** *47th International Conference on Electron, Ion and Photon Beam Technology and Nanofabrication*  
Pickard, D. S., Groves, T. R., Meisburger, W. D., Crane, T., Pease, R. F.  
A V S AMER INST PHYSICS.2003: 2834–38
- **A carbon nanotube cross structure as a nanoscale quantum device** *NANO LETTERS*  
Nojeh, A., Lakatos, G. W., Peng, S., Cho, K., Pease, R. F.  
2003; 3 (9): 1187-1190
- **Optimization and characterization of III-V surface cleaning** *15th International Vacuum Microelectronics Conference (IVMC)*  
Liu, Z., Sun, Y., Machuca, F., Pianetta, P., SPICER, W. E., Pease, R. F.  
A V S AMER INST PHYSICS.2003: 1953–58
- **Low frequency noise in sub-100 nm MOSFETs** *4th International Symposium on Nanostructures and Mesoscopic Systems (NanoMES 2003)*  
Kramer, T. A., Pease, R. F.  
ELSEVIER SCIENCE BV.2003: 13–17
- **Oxygen species in Cs/O activated gallium nitride (GaN) negative electron affinity photocathodes** *15th International Vacuum Microelectronics Conference (IVMC)*  
Machuca, F., Liu, Z., Sun, Y., Pianetta, P., SPICER, W. E., Pease, R. F.  
A V S AMER INST PHYSICS.2003: 1863–69
- **Transient measurement of resist charging during electron beam exposure** *46th International Conference on Electron, Ion, and Photon Beam Technology and Nanofabrication (EIPBN)*  
Bai, M., Meisburger, W. D., Pease, R. F.  
A V S AMER INST PHYSICS.2003: 106–11
- **Preparation of clean GaAs(100) studied by synchrotron radiation photoemission** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY A*  
Liu, Z., Sun, Y., Machuca, F., Pianetta, P., SPICER, W. E., Pease, R. F.  
2003; 21 (1): 212-218
- **Thin film nano thermocouple sensors for applications in laser and electron beam irradiation** *12th International Conference on Solid-State Sensors, Actuators and Microsystems (TRANSDUCERS 03)*  
CHU, D. C., Bilir, D. T., Pease, R. F., Goodson, K. E.  
IEEE.2003: 1112–1115
- **Role of oxygen in semiconductor negative electron affinity photocathodes** *46th International Conference on Electron, Ion, and Photon Beam Technology and Nanofabrication (EIPBN)*  
Machuca, F., Liu, Z., Sun, Y., Pianetta, P., SPICER, W. E., Pease, R. F.  
A V S AMER INST PHYSICS.2002: 2721–25
- **Submicron thermocouple measurements of electron-beam resist heating** *46th International Conference on Electron, Ion, and Photon Beam Technology and Nanofabrication (EIPBN)*  
Chu, D. C., Bilir, D. T., Pease, R. F., Goodson, K. E.  
A V S AMER INST PHYSICS.2002: 3044–46
- **Distributed axis electron-beam system for lithography and inspection - preliminary experimental results** *46th International Conference on Electron, Ion, and Photon Beam Technology and Nanofabrication (EIPBN)*  
Pickard, D. S., Campbell, C., Crane, T., Cruz-Rivera, L. J., Davenport, A., Meisburger, W. D., Pease, R. F., Groves, T. R.  
A V S AMER INST PHYSICS.2002: 2662–65
- **Correcting for global space charge by positive ion generation** *46th International Conference on Electron, Ion, and Photon Beam Technology and Nanofabrication (EIPBN)*  
Crane, T., Campbell, C., Pickard, D., Han, L. Q., Takahashi, K., Meisburger, W. D., Pease, R. F.  
A V S AMER INST PHYSICS.2002: 2709–12

- **Simple method for cleaning gallium nitride (0001)** *49th International Symposium of the American-Vacuum-Society*  
Machuca, F., Liu, Z., Sun, Y., Pianetta, R., SPICER, W. E., Pease, R. F.  
A V S AMER INST PHYSICS.2002: 1784–86
- **Semiconductor technology - Imprints offer moore** *NATURE*  
Pease, R. F.  
2002; 417 (6891): 802-803
- **High-throughput mapping of short-range spatial variations using active electrical metrology** *IEEE TRANSACTIONS ON SEMICONDUCTOR MANUFACTURING*  
Xu, O. Y., Berglund, C. N., Pease, R. F.  
2002; 15 (1): 108-117
- **Modeling resist heating in mask fabrication using a multilayer Green's function approach.** *Conference on Metrology, Inspection, and Process Control for Microlithography XVI*  
CHU, D. C., Pease, R. F., Goodson, K. E.  
SPIE-INT SOC OPTICAL ENGINEERING.2002: 206–212
- **Stochastic Coulomb interaction effect in ion-neutralized electron-beam projection optics** *45th International Conference on Electron, Ion, and Photon Beam Technology and Nanofabrication*  
Takahashi, K., Han, L. Q., Pease, R. F., Meisburger, W. D.  
A V S AMER INST PHYSICS.2001: 2572–80
- **Characterization of multicusp-plasma ion source brightness using micron-scale apertures** *45th International Conference on Electron, Ion, and Photon Beam Technology and Nanofabrication*  
Scott, K. L., King, T. J., Leung, K. N., Pease, R. F.  
A V S AMER INST PHYSICS.2001: 2602–6
- **Thermal conductivity measurements of thin-film resist** *45th International Conference on Electron, Ion, and Photon Beam Technology and Nanofabrication*  
Chu, D. C., Touzelbaev, M., Goodson, K. E., Babin, S., Pease, R. F.  
A V S AMER INST PHYSICS.2001: 2874–77
- **Simulation of space charge neutralization using ions in electron beam projection optics** *26th International Conference on Micro- and Nano-Engineering*  
Takahashi, K., Han, L. Q., Pease, R. F., Meisburger, W. D.  
ELSEVIER SCIENCE BV.2001: 231–238
- **High-speed mapping of inter-transistor overlay variations using active electrical metrology** *Conference on Metrology, Inspection, and Process Control for Microlithography XV*  
Ouyang, X., Berglund, C. N., Pease, R. F.  
SPIE-INT SOC OPTICAL ENGINEERING.2001: 506–514
- **Prospect for high brightness III-nitride electron emitter** *44th International Conference on Electron Ion and Photon Beam Technology and Nanofabrication (EIPBN)*  
Machuca, F., Sun, Y., Liu, Z., Ioakeimidi, K., Pianetta, P., Pease, R. F.  
A V S AMER INST PHYSICS.2000: 3042–46
- **Scaled measurements of global space-charge induced image blur in electron beam projection system** *44th International Conference on Electron Ion and Photon Beam Technology and Nanofabrication (EIPBN)*  
Han, L. Q., Pease, R. F., Meisburger, W. D., Winograd, G. I., Takahashi, K.  
A V S AMER INST PHYSICS.2000: 2999–3003
- **Prospects for charged particle lithography as a manufacturing technology** *25th International Conference on Micro- and Nano-Engineering*  
Pease, R. F., Han, L. Q., Winograd, G. I., Meisburger, W. D., Pickard, D., McCord, M. A.  
ELSEVIER SCIENCE BV.2000: 55–60
- **Field size versus column shortness in high throughput electron beam lithography** *43rd International Conference on Electron, Ion, and Photon Beam Technology and Nanofabrication (EIPBN 99)*  
Han, L., Pease, R. F., Meisburger, W. D., Winograd, G. I., McCord, M. A.  
A V S AMER INST PHYSICS.1999: 2830–35

- **Space-charge-induced aberrations** *43rd International Conference on Electron, Ion, and Photon Beam Technology and Nanofabrication (EIPBN 99)*  
Winograd, G. I., Meisburger, W. D., Pease, R. F.  
A V S AMER INST PHYSICS.1999: 2803–7
- **Maskless extreme ultraviolet lithography** *43rd International Conference on Electron, Ion, and Photon Beam Technology and Nanofabrication (EIPBN 99)*  
Choksi, N., Pickard, D. S., McCord, M., Pease, R. F., Shroff, Y., Chen, Y. J., Oldham, W., Markle, D.  
A V S AMER INST PHYSICS.1999: 3047–51
- **High-throughput, high-spatial-frequency measurement of critical dimension variations using memory circuits as electrical test structures** *43rd International Conference on Electron, Ion, and Photon Beam Technology and Nanofabrication (EIPBN 99)*  
Ouyang, X., Deeter, T. L., Berglund, C. N., McCord, M. A., Pease, R. F.  
A V S AMER INST PHYSICS.1999: 2707–13
- **Charging and discharging of electron beam resist films** *43rd International Conference on Electron, Ion, and Photon Beam Technology and Nanofabrication (EIPBN 99)*  
Bai, M., Pease, R. F., Tanasa, C., McCord, M. A., Pickard, D. S., Meisburger, D.  
A V S AMER INST PHYSICS.1999: 2893–96
- **Global space charge effects in high throughput electron beam lithography** *SPIE Conference on Charged Particle Optics IV*  
Han, L. Q., Meisburger, W. D., Pease, R. F., Winograd, G. I.  
SPIE-INT SOCIETY OPTICAL ENGINEERING.1999: 192–214
- **Performance of adaptive alignment method on asymmetric signals** *42nd International Conference on Electron, Ion, and Photon Beam Technology and Nanofabrication (EIPBN)*  
Chen, X., Ghazanfarian, A. A., McCord, M. A., Pease, R. F.  
A V S AMER INST PHYSICS.1998: 3637–41
- **Patterned negative electron affinity photocathodes for maskless electron beam lithography** *42nd International Conference on Electron, Ion, and Photon Beam Technology and Nanofabrication (EIPBN)*  
Schneider, J. E., Sen, P., Pickard, D. S., Winograd, G. I., McCord, M. A., Pease, R. F., SPICER, W. E., Baum, A. W., Costello, K. A., Davis, G. A.  
A V S AMER INST PHYSICS.1998: 3192–96
- **Performance investigation of Coulomb interaction-limited high throughput electron beam lithography based on empirical modeling** *42nd International Conference on Electron, Ion, and Photon Beam Technology and Nanofabrication (EIPBN)*  
Han, L. Q., McCord, M. A., Winograd, G. I., Pease, R. F.  
A V S AMER INST PHYSICS.1998: 3215–20
- **Multiplexed blanker array for parallel electron beam lithography** *42nd International Conference on Electron, Ion, and Photon Beam Technology and Nanofabrication (EIPBN)*  
Winograd, G. I., Han, L., McCord, M. A., Pease, R. F., Krishnamurthi, V.  
A V S AMER INST PHYSICS.1998: 3174–76
- **Lifetime and reliability results for a negative electron affinity photocathode in a demountable vacuum system** *42nd International Conference on Electron, Ion, and Photon Beam Technology and Nanofabrication (EIPBN)*  
Sen, P., Pickard, D. S., Schneider, J. E., McCord, M. A., Pease, R. F., Baum, A. W., Costello, K. A.  
A V S AMER INST PHYSICS.1998: 3380–84
- **Economical sampling algorithm using Fourier analysis for mapping wafer critical dimension variations** *42nd International Conference on Electron, Ion, and Photon Beam Technology and Nanofabrication (EIPBN)*  
Xu, O. Y., Berglund, C. N., McCord, M. A., Pease, R. F., Spence, C., Liu, H. Y.  
A V S AMER INST PHYSICS.1998: 3655–60
- **The micromechanical tunneling transistor** *JOURNAL OF MICROMECHANICS AND MICROENGINEERING*  
McCord, M. A., Dana, A., Pease, R. F.  
1998; 8 (3): 209-212
- **Analysis of the performance limitations from Coulomb interaction in maskless parallel electron beam lithography systems** *Conference on Emerging Lithographic Technologies II*  
Han, L. Q., McCord, M. A., Winograd, G. I., Pease, R. F.  
SPIE - INT SOC OPTICAL ENGINEERING.1998: 292–301

- **Application of the Brewster angle illumination technique to eliminate resist-induced alignment errors** *Optical Microlithography XI Conference*  
Chen, X., Ghazanfarian, A. A., McCord, M. A., Pease, R. F.  
SPIE - INT SOC OPTICAL ENGINEERING.1998: 951–957
- **Resist charging in electron-beam lithography** *18th Annual BACUS Symposium on Photomask Technology and Management*  
Bai, M., Picard, D., Tanasa, C., McCord, M. A., Berglund, C. N., Pease, R. F.  
SPIE - INT SOC OPTICAL ENGINEERING.1998: 383–388
- **Exploiting structure in positioning of non-symmetric signals** *IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP 98)*  
Ghazanfarian, A. A., Chen, X., KAILATH, T., McCord, M. A., Pease, R. F.  
IEEE.1998: 1913–1916
- **High accuracy alignment based on subspace decomposition** *Optical Microlithography XI Conference*  
Ghazanfarian, A. A., Chen, X., McCord, M. A., Pease, R. F.  
SPIE - INT SOC OPTICAL ENGINEERING.1998: 502–509
- **Obtaining a physical two-dimensional Cartesian reference** *41st International Conference on Electron, Ion, and Photon Beam Technology and Nanofabrication (EIBPN)*  
Takac, M. T., Ye, J., Raugh, M. R., Pease, R. F., Berglund, C. N., Owen, G.  
A V S AMER INST PHYSICS.1997: 2173–76
- **Minimum emission current of liquid metal ion sources** *41st International Conference on Electron, Ion, and Photon Beam Technology and Nanofabrication (EIBPN)*  
Beckman, J. C., Chang, T. H., Wagner, A., Pease, R. F.  
A V S AMER INST PHYSICS.1997: 2332–36
- **Practical approach to separating the pattern generator-induced mask CD errors from the blank/process-induced mask CD errors using conventional market measurements** *41st International Conference on Electron, Ion, and Photon Beam Technology and Nanofabrication (EIBPN)*  
Han, L. Q., Wang, W. D., McCord, M. A., Berglund, C. N., Pease, R. F., Weaver, L. S.  
A V S AMER INST PHYSICS.1997: 2243–48
- **Blanked aperture array for parallel electron beam lithography** *41st International Conference on Electron, Ion, and Photon Beam Technology and Nanofabrication (EIBPN)*  
Winograd, G. I., Pease, R. F., McCord, M. A.  
A V S AMER INST PHYSICS.1997: 2289–92
- **Novel objective lens for low voltage electron beam imaging** *41st International Conference on Electron, Ion, and Photon Beam Technology and Nanofabrication (EIBPN)*  
Liu, W., McCord, M., Pease, R. F.  
A V S AMER INST PHYSICS.1997: 2737–41
- **Accurate alignment on asymmetrical signals** *41st International Conference on Electron, Ion, and Photon Beam Technology and Nanofabrication (EIBPN)*  
Chen, X., Ghazanfarian, A. A., McCord, M., Pease, R. F.  
A V S AMER INST PHYSICS.1997: 2185–88
- **Neural network model for global alignment incorporating wafer and stage distortion** *41st International Conference on Electron, Ion, and Photon Beam Technology and Nanofabrication (EIBPN)*  
Ghazanfarian, A. A., Pease, R. F., Chen, X., McCord, M. A.  
A V S AMER INST PHYSICS.1997: 2146–50
- **Semiconductor on glass photocathodes for high throughput maskless electron beam lithography** *41st International Conference on Electron, Ion, and Photon Beam Technology and Nanofabrication (EIBPN)*  
Baum, A. W., Schneider, J. E., Pease, R. F., McCord, M. A., SPICER, W. E., Costello, K. A., Aebi, V. W.  
A V S AMER INST PHYSICS.1997: 2707–12
- **Optimal coherent decompositions for radially symmetric optical systems** *41st International Conference on Electron, Ion, and Photon Beam Technology and Nanofabrication (EIBPN)*  
von Bunau, R. M., Pati, Y. C., Wang, Y. T., Pease, R. F.  
A V S AMER INST PHYSICS.1997: 2412–16

- **Exploiting structure in fast aerial image computation for integrated circuit patterns** *IEEE TRANSACTIONS ON SEMICONDUCTOR MANUFACTURING*  
Pati, Y. C., Ghazanfarian, A. A., Pease, R. F.  
1997; 10 (1): 62-74
- **Improved heat sinking for laser-diode arrays using microchannels in CVD diamond** *IEEE TRANSACTIONS ON COMPONENTS PACKAGING AND MANUFACTURING TECHNOLOGY PART B-ADVANCED PACKAGING*  
Goodson, K. E., Kurabayashi, K., Pease, R. F.  
1997; 20 (1): 104-109
- **Fabrication of silicon nanopillars containing polycrystalline silicon/insulator multilayer structures** *APPLIED PHYSICS LETTERS*  
Fukuda, H., Hoyt, J. L., McCord, M. A., Pease, R. F.  
1997; 70 (3): 333-335
- **An exact algorithm for self-calibration of two-dimensional precision metrology stages** *PRECISION ENGINEERING-JOURNAL OF THE AMERICAN SOCIETY FOR PRECISION ENGINEERING*  
Ye, J., Takac, M., Berglund, C. N., Owen, G., Pease, R. F.  
1997; 20 (1): 16-32
- **A new approach to global alignment in IC manufacturing based on a neural network model** *Conference on Optical Microlithography X*  
Ghazanfarian, A. A., Pease, R. F., Chen, X., McCord, M. A.  
SPIE - INT SOC OPTICAL ENGINEERING.1997: 629-642
- **Patterned media: A viable route to 50 Gbit/in(2) and up for magnetic recording?** *7th Annual Magnetic Recording Conference (TMRC) on Media*  
White, R. L., New, R. M., Pease, R. F.  
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.1997: 990-95
- **Micro-objective lens with compact secondary electron detector for miniature low voltage electron beam systems** *40th International Conference on Electron, Ion, and Photon Beam Technology and Nanofabrication (EIBPN)*  
Liu, W., Ambe, T., Pease, R. F.  
A V S AMER INST PHYSICS.1996: 3738-41
- **Energy spread in liquid metal ion sources at low currents** *40th International Conference on Electron, Ion, and Photon Beam Technology and Nanofabrication (EIBPN)*  
Beckman, J. C., Chang, T. H., Wagner, A., Pease, R. F.  
A V S AMER INST PHYSICS.1996: 3911-15
- **Semiconductor on glass photocathodes as high-performance sources for parallel electron beam lithography** *40th International Conference on Electron, Ion, and Photon Beam Technology and Nanofabrication (EIBPN)*  
Schneider, J. E., Baum, A. W., Winograd, G. I., Pease, R. F., McCord, M., SPICER, W. E., Costello, K. A., Aebi, V. W.  
A V S AMER INST PHYSICS.1996: 3782-86
- **Minimizing alignment error induced by asymmetric resist coating** *40th International Conference on Electron, Ion, and Photon Beam Technology and Nanofabrication (EIBPN)*  
Chen, X., Pease, R. F.  
A V S AMER INST PHYSICS.1996: 3980-84
- **Structure in thin and ultrathin spin-cast polymer films** *SCIENCE*  
Frank, C. W., Rao, V., DESPOTOPOULOU, M. M., Pease, R. F., Hinsberg, W. D., Miller, R. D., Rabolt, J. F.  
1996; 273 (5277): 912-915
- **Switching characteristics of submicron cobalt islands** *JOURNAL OF APPLIED PHYSICS*  
Gomez, R. D., Shih, M. C., New, R. M., Pease, R. F., White, R. L.  
1996; 80 (1): 342-346
- **Magnetic force microscopy of single-domain single-crystal iron particles with uniaxial surface anisotropy** *40th Annual Conference on Magnetism and Magnetic Materials*  
New, R. M., Pease, R. F., White, R. L., Osgood, R. M., Babcock, K.  
AMER INST PHYSICS.1996: 5851-53

- **Lithographically patterned single-domain cobalt islands for high-density magnetic recording** *6th International Conference on Magnetic Recording Media*  
New, R. M., Pease, R. F., White, R. L.  
ELSEVIER SCIENCE BV.1996: 140–45
- **Self-calibration in two-dimensions: The experiment** *10th Annual SPIE Conference on Metrology, Inspection, and Process Control for Microlithography*  
Takac, M. T., Ye, J., Raugh, M. R., Pease, R. F., Berglund, C. N., Owen, G.  
SPIE - INT SOC OPTICAL ENGINEERING.1996: 130–146
- **Can nanolithography ever be a manufacturing technology?** *1st International Conference on Low Dimensional Structures and Devices*  
Pease, R. F.  
ELSEVIER SCIENCE SA.1995: 188–91
- **EFFECT OF MAGNETOCRYSTALLINE ANISOTROPY IN SINGLE-DOMAIN POLYCRYSTALLINE COBALT ISLANDS** *1995 IEEE International Magnetics Conference (INTERMAG 95)*  
New, R. M., Pease, R. F., White, R. L.  
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.1995: 3805–7
- **Field distortion characterization using linewidth or pitch measurement** *39th International Conference on Electron, Ion, and Photon Beam Technology and Nanofabrication (EIPBN)*  
Ye, J., Berglund, C. N., Pease, R. F., Owen, G., Jaeger, R., Alexander, K., Seeger, J.  
A V S AMER INST PHYSICS.1995: 2904–8
- **Adaptive metrology: An economical strategy for judging the acceptability of a mask pattern** *39th International Conference on Electron, Ion, and Photon Beam Technology and Nanofabrication (EIPBN)*  
Wang, W. D., Ye, J., Owen, A. B., Berglund, C. N., Pease, R. F.  
A V S AMER INST PHYSICS.1995: 2642–47
- **RESIST CHARGING IN ELECTRON-BEAM LITHOGRAPHY** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY B*  
Liu, W., INGINO, J., Pease, R. F.  
1995; 13 (5): 1979-1983
- **GROWTH OF SINGLE DIAMOND CRYSTALLITES AROUND NANOMETER-SCALE SILICON WIRES** *APPLIED PHYSICS LETTERS*  
DENNIG, P. A., Liu, H. I., Stevenson, D. A., Pease, R. F.  
1995; 67 (7): 909-911
- **A REVIEW OF MASK ERRORS ON A VARIETY OF PATTERN GENERATORS** *IEEE TRANSACTIONS ON SEMICONDUCTOR MANUFACTURING*  
Ye, J., Berglund, C. N., Robinson, J., Pease, R. F.  
1995; 8 (3): 319-325
- **LOW-ENERGY-ELECTRON ATOM ELASTIC-SCATTERING CROSS-SECTIONS FROM 0.1-30 KEV** *SCANNING*  
Browning, R., Li, T. Z., Chui, B., Ye, J., Pease, R. F., CZYZEWSKI, Z., Joy, D. C.  
1995; 17 (4): 250-253
- **PENETRATION DEPTH AND CRITICAL-CURRENT IN NBN RESONATORS - PREDICTING NONLINEARITIES AND BREAKDOWN IN MICROSTRIP** *1994 Applied Superconductivity Conference*  
TAKKEN, T. E., Beasley, M. R., Pease, R. F.  
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.1995: 1975–78
- **PHYSICAL AND MAGNETIC-PROPERTIES OF SUBMICRON LITHOGRAPHICALLY PATTERNED MAGNETIC ISLANDS** *3rd International Conference on Nanometer-Scale Science and Technology*  
New, R. M., Pease, R. F., White, R. L.  
A V S AMER INST PHYSICS.1995: 1089–94
- **IMPROVED RETARDING-FIELD OPTICS VIA IMAGE OUTSIDE FIELD** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY B*  
HORDON, L. S., Boyer, B. B., Pease, R. F.  
1995; 13 (3): 826-832

- **Negative electron affinity photocathodes as high-performance electron sources .1. Achievement of ultra-high brightness from an NEA photocathode** *Conference on Electron-Beam Sources and Charged-Particle Optics*  
Baum, A. W., SPICER, W. E., Pease, R. F., Costello, K. A., Aebi, V. W.  
SPIE - INT SOC OPTICAL ENGINEERING.1995: 208–219
- **Does 0.1 micron equal mach 1?** *Symposium on Materials-Fabrication and Patterning at the Nanoscale*  
Pease, R. F.  
MATERIALS RESEARCH SOC.1995: 165–171
- **Resist charging in electron beam lithography** *15th Annual Symposium on Photomask Technology and Management*  
Liu, W., Pease, R. F.  
SPIE - INT SOC OPTICAL ENGINEERING.1995: 516–526
- **Retarding field optics with field-free sample** *Conference on Electron-Beam Sources and Charged-Particle Optics*  
HORDON, L. S., Boyer, B. B., Pease, R. F.  
SPIE - INT SOC OPTICAL ENGINEERING.1995: 44–53
- **Negative electron affinity photocathodes as high-performance electron sources .2. Energy spectrum measurements** *Photodetectors and Power Meters II Conference*  
Baum, A. W., SPICER, W. E., Pease, R. F., Costello, K. A., Aebi, V. W.  
SPIE-INT SOC OPTICAL ENGINEERING.1995: 189–196
- **High-performance negative electron affinity photocathodes for high resolution electron beam lithography and metrology** *1995 International Electron Devices Meeting*  
Baum, A. W., Schneider, J. E., Pease, R. F.  
IEEE.1995: 409–412
- **CHARACTERIZATION OF IN-SITU VARIABLE-ENERGY FOCUSED ION BEAM/MBE MQW STRUCTURES** *21st International Symposium on Compound Semiconductors*  
Bone, D. J., LEE, H., Williams, K., Harris, J. S., Pease, R. F.  
IOP PUBLISHING LTD.1995: 359–62
- **2X2-PHASE MASK FOR ARBITRARY PATTERN-FORMATION** *7th International MicroProcess Conference (MPC 94)/1994 International Electron Device and Materials Symposium (1994 EDMS)*  
Watanabe, H., Pati, Y. C., Pease, R. F.  
INST PURE APPLIED PHYSICS.1994: 6790–95
- **SUBMICRON PATTERNING OF THIN COBALT FILMS FOR MAGNETIC STORAGE** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY B*  
New, R. M., Pease, R. F., White, R. L.  
1994; 12 (6): 3196-3201
- **CHARACTERIZATION OF A 193 NM OPTICAL LITHOGRAPHY SYSTEM FOR 0.18 MU-M AND BELOW** *38th International Symposium on Electron, Ion and Photon Beams*  
Grenville, A., Owen, G., Pease, R. F.  
AMER INST PHYSICS.1994: 3814–19
- **QUARTER-MICRON LITHOGRAPHY WITH A GAPPED MARKLE-DYSON SYSTEM** *38th International Symposium on Electron, Ion and Photon Beams*  
Owen, G., BORKHOLDER, D., Knorr, C., Markle, D. A., Pease, R. F.  
AMER INST PHYSICS.1994: 3809–13
- **SPATIAL-FREQUENCY FILTERING USING MULTIPLE-PASS PRINTING** *38th International Symposium on Electron, Ion and Photon Beams*  
Ye, J., Berglund, C. N., Pease, R. F.  
AMER INST PHYSICS.1994: 3455–59
- **EMPIRICAL FORMS FOR THE ELECTRON-ATOM ELASTIC-SCATTERING CROSS-SECTIONS FROM 0.1 TO 30 KEV** *JOURNAL OF APPLIED PHYSICS*  
Browning, R., Li, T. Z., Chui, B., Ye, J., Pease, R. F., CZYZEWSKI, Z., Joy, D. C.  
1994; 76 (4): 2016-2022
- **LIMITS OF HIGH-DENSITY, LOW-FORCE PRESSURE CONTACTS** *International Electronics Manufacturing Symposium*

- Beale, J., Pease, R. F.  
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.1994: 257-62
- **WORKPIECE CHARGING IN ELECTRON-BEAM LITHOGRAPHY** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY B*  
INGINO, J., Owen, G., Berglund, C. N., Browning, R., Pease, R. F.  
1994; 12 (3): 1367-1371
  - **SELF-LIMITING OXIDATION FOR FABRICATING SUB-5 NM SILICON NANOWIRES** *APPLIED PHYSICS LETTERS*  
Liu, H. I., BIEGELSEN, D. K., Ponce, F. A., Johnson, N. M., Pease, R. F.  
1994; 64 (11): 1383-1385
  - **THE ROLE OF RESIDUAL CASTING SOLVENT IN DISSOLUTION BEHAVIOR OF POLY(3-METHYL-4-HYDROXYSTYRENE) FILMS** *Advances in Resist Technology and Processing XI Conference/SPIE 1994 Symposium on Microlithography*  
Rao, V., Hinsberg, W. D., Frank, C. W., Pease, R. F.  
SPIE - INT SOC OPTICAL ENGINEERING.1994: 596-609
  - **2-LEVEL MASKS FOR INCREASED DEPTH OF FOCUS** *14th Annual BACUS Symposium on Photomask Technology and Management*  
VONBUNAU, R. M., DIOLA, R., DEPESA, P., Kay, S., Markle, D. A., Tai, E., Pease, R. F.  
SPIE - INT SOC OPTICAL ENGINEERING.1994: 392-399
  - **OPTIMIZATION OF PUPIL FILTERS FOR INCREASED DEPTH OF FOCUS** *6th (5th International) MicroProcess Conference (MPC 93)*  
VONBUNAU, R. M., Owen, G., Pease, R. F.  
JAPAN SOC APPLIED PHYSICS.1993: 5850-55
  - **THE EFFECT OF GAPS IN MARKLE-DYSON OPTICS FOR SUB-QUARTER-MICRON LITHOGRAPHY** *6th (5th International) MicroProcess Conference (MPC 93)*  
Owen, G., Grenville, A., VONBUNAU, R., Jeong, H., Markle, D. A., Pease, R. F.  
JAPAN SOC APPLIED PHYSICS.1993: 5840-44
  - **SELF-LIMITING OXIDATION OF SI NANOWIRES** *37th International Symposium on Electron, Ion, and Photon Beams*  
Liu, H. I., BIEGELSEN, D. K., Johnson, N. M., Ponce, F. A., Pease, R. F.  
A V S AMER INST PHYSICS.1993: 2532-37
  - **IMAGE MONITOR FOR MARKLE-DYSON OPTICS** *37th International Symposium on Electron, Ion, and Photon Beams*  
Grenville, A., Owen, G., Pease, R. F.  
A V S AMER INST PHYSICS.1993: 2700-2704
  - **OPTICAL PROJECTION SYSTEM FOR GIGABIT DYNAMIC RANDOM-ACCESS MEMORIES** *37th International Symposium on Electron, Ion, and Photon Beams*  
Jeong, H., Markle, D. A., Owen, G., Pease, R. F., Grenville, A.  
A V S AMER INST PHYSICS.1993: 2675-79
  - **HIGH-ASPECT-RATIO LINES AS LOW DISTORTION, HIGH-FREQUENCY OFF-CHIP INTERCONNECTS** *IEEE TRANSACTIONS ON COMPONENTS HYBRIDS AND MANUFACTURING TECHNOLOGY*  
BLENNEMANN, H. C., Pease, R. F.  
1993; 16 (7): 692-698
  - **LIMITS OF HIGH-DENSITY, LOW-FORCE PRESSURE CONTACTS** *15th IEEE/CHMT International Electronics Manufacturing Technology (IEMT) Symposium: Electronics Manufacturing for the year 2000*  
Beale, J., Pease, R. F.  
I E E E.1993: 136-140
  - **LIMITS OF ULTRAVIOLET LITHOGRAPHY** *OSA Topical Meeting on Soft X-Ray Projection Lithography*  
Pease, R. F.  
OPTICAL SOC AMERICA.1993: 6-9
  - **REPAIR OF PHASE-SHIFT MASKS USING LOW-ENERGY FOCUSED ION-BEAMS** *5TH ( 4TH INTERNATIONAL ) MICROPROCESS CONF ( MPC 92 )*  
Lee, H. W., Pease, R. F.  
JAPAN J APPLIED PHYSICS.1992: 4474-78

- **EFFECT ON SCALING OF HEAT REMOVAL REQUIREMENTS IN 3-DIMENSIONAL SYSTEMS** *INTERNATIONAL JOURNAL OF ELECTRONICS*  
Ozaktas, H. M., Oksuzoglu, H., Pease, R. F., Goodman, J. W.  
1992; 73 (6): 1227-1232
- **PRESENT AND FUTURE-TRENDS IN MICROLITHOGRAPHY** *5TH ( 4TH INTERNATIONAL ) MICROPROCESS CONF ( MPC 92 )*  
Pease, R. F.  
JAPAN J APPLIED PHYSICS.1992: 4103-9
- **LOW-VOLTAGE ALTERNATIVE FOR ELECTRON-BEAM LITHOGRAPHY** *36TH ANNUAL INTERNATIONAL SYMP ON ELECTRON, ION, AND PHOTON BEAMS*  
Lee, Y. H., Browning, R., Maluf, N., Owen, G., Pease, R. F.  
AMER INST PHYSICS.1992: 3094-98
- **SPATIAL CORRELATION OF ELECTRON-BEAM MASK ERRORS AND THE IMPLICATIONS FOR INTEGRATED-CIRCUIT YIELD** *36TH ANNUAL INTERNATIONAL SYMP ON ELECTRON, ION, AND PHOTON BEAMS*  
Berglund, C. N., Maluf, N. I., Ye, J., Owen, G., Browning, R., Pease, R. F.  
AMER INST PHYSICS.1992: 2633-37
- **ALL-REFLECTIVE PHASE-SHIFTING MASKS FOR MARKLE-DYSON OPTICS** *36TH ANNUAL INTERNATIONAL SYMP ON ELECTRON, ION, AND PHOTON BEAMS*  
Hsieh, R. L., Grenville, A., Owen, G., Pease, R. F.  
AMER INST PHYSICS.1992: 3042-46
- **DEPTH OF FOCUS ENHANCEMENT IN OPTICAL LITHOGRAPHY** *36TH ANNUAL INTERNATIONAL SYMP ON ELECTRON, ION, AND PHOTON BEAMS*  
VONBUNAU, R., Owen, G., Pease, R. F.  
AMER INST PHYSICS.1992: 3047-54
- **OXIDATION OF SUB-50 NM SI COLUMNS FOR LIGHT-EMISSION STUDY** *36TH ANNUAL INTERNATIONAL SYMP ON ELECTRON, ION, AND PHOTON BEAMS*  
Liu, H. I., Maluf, N. I., Pease, R. F., BIEGELSEN, D. K., Johnson, N. M., Ponce, F. A.  
AMER INST PHYSICS.1992: 2846-50
- **GROWTH MECHANISMS AND PROPERTIES OF 90-DEGREES GRAIN-BOUNDARIES IN YBA2CU3O7 THIN-FILMS** *PHYSICAL REVIEW B*  
Eom, C. B., Marshall, A. F., Suzuki, Y., Geballe, T. H., Boyer, B., Pease, R. F., VANDOVER, R. B., Phillips, J. M.  
1992; 46 (18): 11902-11913
- **1/8 MU-M OPTICAL LITHOGRAPHY** *36TH ANNUAL INTERNATIONAL SYMP ON ELECTRON, ION, AND PHOTON BEAMS*  
Owen, G., Pease, R. F., Markle, D. A., Grenville, A., Hsieh, R. L., VONBUNAU, R., Maluf, N. I.  
AMER INST PHYSICS.1992: 3032-36
- **ANALYTIC OPTIMIZATION OF DYSON OPTICS** *APPLIED OPTICS*  
New, R. M., Owen, G., Pease, R. F.  
1992; 31 (10): 1444-1449
- **NANOLITHOGRAPHY AND ITS PROSPECTS AS A MANUFACTURING TECHNOLOGY** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY B*  
Pease, R. F.  
1992; 10 (1): 278-285
- **MARKLE-DYSON OPTICS FOR 0.25-MU-M LITHOGRAPHY AND BEYOND** *35TH INTERNATIONAL SYMP ON ELECTRON, ION, AND PHOTON BEAMS*  
Grenville, A., Hsieh, R. L., VONBUNAU, R., Lee, Y. H., Markle, D. A., Owen, G., Pease, R. F.  
AMER INST PHYSICS.1991: 3108-12
- **QUANTUM LITHOGRAPHY** *35TH INTERNATIONAL SYMP ON ELECTRON, ION, AND PHOTON BEAMS*  
Maluf, N. I., Pease, R. F.  
AMER INST PHYSICS.1991: 2986-91
- **SILICON ON QUARTZ REFLECTIVE MASKS FOR 0.25-MU-M MICROLITHOGRAPHY** *35TH INTERNATIONAL SYMP ON ELECTRON, ION, AND PHOTON BEAMS*  
Lee, Y. H., Hsieh, R. L., Grenville, A., VONBUNAU, R., Tsai, C. C., Markle, D. A., Owen, G., Browning, R., Pease, R. F.

AMER INST PHYSICS.1991: 3138-42

- **AN ELASTIC CROSS-SECTION MODEL FOR USE WITH MONTE-CARLO SIMULATIONS OF LOW-ENERGY ELECTRON-SCATTERING FROM HIGH ATOMIC-NUMBER TARGETS** *35TH INTERNATIONAL SYMP ON ELECTRON, ION, AND PHOTON BEAMS*  
Browning, R., Eimori, T., TRAUT, E. P., Chui, B., Pease, R. F.  
AMER INST PHYSICS.1991: 3578-81
- **ABSENCE OF WEAK-LINK BEHAVIOR IN YBA2CU3O7 GRAINS CONNECTED BY 90-DEGREES [010] TWIST BOUNDARIES** *NATURE*  
Eom, C. B., Marshall, A. F., Suzuki, Y., Boyer, B., Pease, R. F., Geballe, T. H.  
1991; 353 (6344): 544-547
- **LIMITS OF NANO-GATE FABRICATION** *PROCEEDINGS OF THE IEEE*  
Allee, D. R., Broers, A. N., Pease, R. F.  
1991; 79 (8): 1093-1105
- **LATERAL RESONANT TUNNELING TRANSISTORS EMPLOYING FIELD-INDUCED QUANTUM-WELLS AND BARRIERS** *PROCEEDINGS OF THE IEEE*  
Chou, S. Y., Allee, D. R., Pease, R. F., Harris, J. S.  
1991; 79 (8): 1131-1139
- **NANOELECTRONICS** *PROCEEDINGS OF THE IEEE*  
Pease, R. F.  
1991; 79 (8): 1091-1092
- **MAGNETIC PENETRATION DEPTH MEASUREMENTS OF SUPERCONDUCTING THIN-FILMS BY A MICROSTRIP RESONATOR TECHNIQUE** *REVIEW OF SCIENTIFIC INSTRUMENTS*  
LANGLEY, B. W., Anlage, S. M., Pease, R. F., Beasley, M. R.  
1991; 62 (7): 1801-1812
- **MULTICOMPONENT LANGMUIR-BLODGETT RESISTS FOR OPTICAL LITHOGRAPHY** *34TH INTERNATIONAL SYMP ON ELECTRON, ION, AND PHOTON BEAMS*  
Kosbar, L. L., Frank, C. W., Pease, R. F.  
AMER INST PHYSICS.1990: 1441-46
- **PROCESS MARGINS FOR PULSED LASER-INDUCED VIA FILLING** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY B*  
MARELLA, P. F., TUCKERMAN, D. B., Pease, R. F.  
1990; 8 (6): 1780-1785
- **DISTORTION MEASUREMENT OF EMBEDDED ABSORBER (SILICON MEMBRANE) AND CONVENTIONAL (DIAMOND MEMBRANE) X-RAY MASKS** *34TH INTERNATIONAL SYMP ON ELECTRON, ION, AND PHOTON BEAMS*  
Maluf, N. I., Pease, R. F., Windischmann, H.  
AMER INST PHYSICS.1990: 1584-88
- **VOID FORMATION IN PULSED LASER-INDUCED VIA CONTACT HOLE FILLING** *APPLIED PHYSICS LETTERS*  
MARELLA, P. F., TUCKERMAN, D. B., Pease, R. F.  
1990; 56 (26): 2625-2627
- **RESONANT TUNNELING OF 1-DIMENSIONAL ELECTRONS ACROSS AN ARRAY OF 3-Dimensionally CONFINED POTENTIAL WELLS** *SUPERLATTICES AND MICROSTRUCTURES*  
Allee, D. R., Chou, S. Y., Harris, J. S., Pease, R. F.  
1990; 7 (2): 131-134
- **NEW LATERAL RESONANT TUNNELING FETS FABRICATED USING MOLECULAR-BEAM EPITAXY AND ULTRA-HIGH RESOLUTION ELECTRON-BEAM LITHOGRAPHY** *INSTITUTE OF PHYSICS CONFERENCE SERIES*  
Chou, S. Y., Allee, D. R., Pease, R. F., Harris, J. S.  
1990: 875-879
- **NEW LATERAL RESONANT TUNNELING FETS FABRICATED USING MOLECULAR-BEAM EPITAXY AND ULTRA-HIGH RESOLUTION ELECTRON-BEAM LITHOGRAPHY** *16TH INTERNATIONAL SYMP ON GALLIUM ARSENIDE AND RELATED COMPOUNDS*  
Chou, S. Y., Allee, D. R., Pease, R. F., Harris, J. S.  
IOP PUBLISHING LTD.1990: 875-879

- **ULTRATHIN POLY(METHYLMETHACRYLATE) RESIST FILMS FOR MICROLITHOGRAPHY** *33RD INTERNATIONAL SYMP ON ELECTRON, ION, AND PHOTON BEAMS ( 33 ISEIPB )*  
KUAN, S. W., Frank, C. W., LEE, Y. H., Eimori, T., Allee, D. R., Pease, R. F., Browning, R.  
AMER INST PHYSICS.1989: 1745-50
- **ENGINEERING LATERAL QUANTUM INTERFERENCE DEVICES USING ELECTRON-BEAM LITHOGRAPHY AND MOLECULAR-BEAM EPITAXY** *33RD INTERNATIONAL SYMP ON ELECTRON, ION, AND PHOTON BEAMS ( 33 ISEIPB )*  
Allee, D. R., Chou, S. Y., Harris, J. S., Pease, R. F.  
AMER INST PHYSICS.1989: 2015-19
- **EXPOSURE OF ULTRATHIN POLYMER RESISTS WITH THE SCANNING TUNNELING MICROSCOPE** *33RD INTERNATIONAL SYMP ON ELECTRON, ION, AND PHOTON BEAMS ( 33 ISEIPB )*  
Zhang, H., HORDON, L. S., KUAN, S. W., MACCAGNO, P., Pease, R. F.  
AMER INST PHYSICS.1989: 1717-22
- **EFFECTS OF CHROMIUM ON THE REACTIVE ION ETCHING OF STEEP-WALLED TRENCHES IN SILICON** *33RD INTERNATIONAL SYMP ON ELECTRON, ION, AND PHOTON BEAMS ( 33 ISEIPB )*  
Maluf, N. I., Chou, S. Y., McVittie, J. P., KUAN, S. W., Allee, D. R., Pease, R. F.  
AMER INST PHYSICS.1989: 1497-1501
- **OBSERVATION OF ELECTRON RESONANT TUNNELING IN A LATERAL DUAL-GATE RESONANT TUNNELING FIELD-EFFECT TRANSISTOR** *APPLIED PHYSICS LETTERS*  
Chou, S. Y., Allee, D. R., Pease, R. F., Harris, J. S.  
1989; 55 (2): 176-178
- **MODELING OF LASER PLANARIZATION OF THIN METAL-FILMS** *APPLIED PHYSICS LETTERS*  
MARELLA, P. F., TUCKERMAN, D. B., Pease, R. F.  
1989; 54 (12): 1109-1111
- **LITHOGRAPHY AND SPECTROSCOPY OF ULTRATHIN LANGMUIR BLODGETT POLYMER-FILMS** *ACS SYMPOSIUM SERIES*  
KUAN, S. W., Martin, P. S., Kosbar, L. L., Frank, C. W., Pease, R. F.  
1989; 412: 349-363
- **FLASHLAMP-PUMPED DYE AND EXCIMER LASER PLANARIZATION OF THIN METAL-FILMS** *SYMP AT THE 1988 FALL MEETING OF THE MATERIALS RESEARCH SOC : LASER- BEAM AND PARTICLE-BEAM CHEMICAL PROCESSES ON SURFACES*  
MARELLA, P. F., TUCKERMAN, D. B., Pease, R. F.  
MATERIALS RESEARCH SOC.1989: 569-577
- **PHOTOPHYSICAL STUDIES OF SPIN-CAST POLYMER-FILMS** *ACS SYMPOSIUM SERIES*  
Kosbar, L. L., KUAN, S. W., Frank, C. W., Pease, R. F.  
1989; 381: 95-111
- **ULTRATHIN POLYMER-FILMS FOR MICROLITHOGRAPHY** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY B*  
KUAN, S. W., Frank, C. W., Fu, C. C., Allee, D. R., MACCAGNO, P., Pease, R. F.  
1988; 6 (6): 2274-2279
- **HIGH-RESOLUTION AND HIGH-FIDELITY X-RAY MASK STRUCTURE EMPLOYING EMBEDDED ABSORBERS** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY B*  
Chou, S. Y., Maluf, N. I., Pease, R. F.  
1988; 6 (6): 2202-2206
- **APPLICATIONS OF A VARIABLE ENERGY FOCUSED ION-BEAM SYSTEM** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY B*  
NARUM, D. H., Pease, R. F.  
1988; 6 (6): 2115-2119
- **NOVEL MONTE-CARLO SIMULATION OF SPACE-CHARGE-INDUCED ENERGY BROADENING IN LASER IRRADIATED CATHODES** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY B*  
Allee, D. R., Pehoushek, J. D., Pease, R. F.  
1988; 6 (6): 1989-1994

- **OBSERVATION AND MANIPULATION OF POLYMERS BY SCANNING TUNNELLING AND ATOMIC FORCE MICROSCOPY** *JOURNAL OF MICROSCOPY-OXFORD*  
DOVEK, M. M., Albrecht, T. R., KUAN, S. W., Lang, C. A., EMCH, R., Grutter, P., Frank, C. W., Pease, R. F., Quate, C. F.  
1988; 152: 229-236
- **PHYSICAL LIMITS TO THE USEFUL PACKAGING DENSITY OF ELECTRONIC SYSTEMS** *IBM JOURNAL OF RESEARCH AND DEVELOPMENT*  
Pease, R. F., Kwon, O. K.  
1988; 32 (5): 636-646
- **IMAGING AND MODIFICATION OF POLYMERS BY SCANNING TUNNELING AND ATOMIC FORCE MICROSCOPY** *JOURNAL OF APPLIED PHYSICS*  
Albrecht, T. R., DOVEK, M. M., Lang, C. A., Grutter, P., Quate, C. F., KUAN, S. W., Frank, C. W., Pease, R. F.  
1988; 64 (3): 1178-1184
- **LATERAL UNIFORMITY OF N+/P JUNCTIONS FORMED BY ARSENIC DIFFUSION FROM EPITAXIALLY ALIGNED POLYCRYSTALLINE SILICON ON SILICON** *JOURNAL OF THE ELECTROCHEMICAL SOCIETY*  
Hoyt, J. L., CRABBE, E. F., Pease, R. F., Gibbons, J. F., Marshall, A. F.  
1988; 135 (7): 1773-1779
- **LATERAL RESONANT TUNNELING FIELD-EFFECT TRANSISTOR** *APPLIED PHYSICS LETTERS*  
Chou, S. Y., Harris, J. S., Pease, R. F.  
1988; 52 (23): 1982-1984
- **A VARIABLE ENERGY FOCUSED ION-BEAM SYSTEM FOR INSITU MICROFABRICATION** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY B*  
NARUM, D. H., Pease, R. F.  
1988; 6 (3): 966-973
- **ELECTRON SATURATION VELOCITY VARIATION IN INGAAS AND GAAS CHANNEL MODFETS FOR GATE LENGTHS TO 550-Å** *IEEE ELECTRON DEVICE LETTERS*  
DELAHOUSAYE, P. R., Allee, D. R., Pao, Y. C., Schlom, D. G., Harris, J. S., Pease, R. F.  
1988; 9 (3): 148-150
- **CONTENT-ADDRESSABLE MEMORY FOR VLSI PATTERN INSPECTION** *IEEE JOURNAL OF SOLID-STATE CIRCUITS*  
Chae, S. I., Walker, J. T., Fu, C. C., Pease, R. F.  
1988; 23 (1): 74-78
- **A MULTIPLE EXPOSURE STRATEGY FOR REDUCING BUTTING ERRORS IN A RASTER-SCANNED ELECTRON-BEAM EXPOSURE SYSTEM** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY B*  
DAMERON, D. H., Fu, C. C., Pease, R. F.  
1988; 6 (1): 213-215
- **SUB-100-NM GATE LENGTH GAAS METAL-SEMICONDUCTOR FIELD-EFFECT TRANSISTORS AND MODULATION-DOPED FIELD-EFFECT TRANSISTORS FABRICATED BY A COMBINATION OF MOLECULAR-BEAM EPITAXY AND ELECTRON-BEAM LITHOGRAPHY** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY B*  
Allee, D. R., DELAHOUSAYE, P. R., Schlom, D. G., Harris, J. S., Pease, R. F.  
1988; 6 (1): 328-332
- **LIFT-OFF METALLIZATION USING POLY(METHYL METHACRYLATE) EXPOSED WITH A SCANNING TUNNELING MICROSCOPE** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY B*  
McCord, M. A., Pease, R. F.  
1988; 6 (1): 293-296
- **A LATERAL RESONANT TUNNELING FET** *SUPERLATTICES AND MICROSTRUCTURES*  
Chou, S. Y., Wolak, E., Harris, J. S., Pease, R. F.  
1988; 4 (2): 181-186
- **SUPERCONDUCTORS AS VERY HIGH-SPEED SYSTEM-LEVEL INTERCONNECTS** *IEEE ELECTRON DEVICE LETTERS*  
Kwon, O. K., LANGLEY, B. W., Pease, R. F., Beasley, M. R.  
1987; 8 (12): 582-585

- **MOLECULAR MONOLAYERS AND FILMS** *LANGMUIR*  
Swalen, J. D., Allara, D. L., ANDRADE, J. D., Chandross, E. A., Garoff, S., Israelachvili, J., MCCARTHY, T. J., Murray, R., Pease, R. F., Rabolt, J. F., Wynne, K. J., Yu, H.  
1987; 3 (6): 932-950
- **CLOSELY PACKED MICROSTRIP LINES AS VERY HIGH-SPEED CHIP-TO-CHIP INTERCONNECTS** *IEEE TRANSACTIONS ON COMPONENTS HYBRIDS AND MANUFACTURING TECHNOLOGY*  
Kwon, O. K., Pease, R. F.  
1987; 10 (3): 314-320
- **EPITAXIAL ALIGNMENT OF ARSENIC IMPLANTED POLYCRYSTALLINE SILICON FILMS ON (100) SILICON OBTAINED BY RAPID THERMAL ANNEALING** *APPLIED PHYSICS LETTERS*  
Hoyt, J. L., Crabbe, E., Gibbons, J. F., Pease, R. F.  
1987; 50 (12): 751-753
- **SCANNING TUNNELING MICROSCOPE AS A MICROMECHANICAL TOOL** *APPLIED PHYSICS LETTERS*  
McCord, M. A., Pease, R. F.  
1987; 50 (10): 569-570
- **THE EFFECT OF REFLECTED AND SECONDARY ELECTRONS ON LITHOGRAPHY WITH THE SCANNING TUNNELING MICROSCOPE** *SURFACE SCIENCE*  
McCord, M. A., Pease, R. F.  
1987; 181 (1-2): 278-284
- **HIGH-RESOLUTION PATTERNING SYSTEM WITH A SINGLE BORE OBJECTIVE LENS** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY B*  
Newman, T. H., Williams, K. E., Pease, R. F.  
1987; 5 (1): 88-91
- **EXPOSURE OF CALCIUM-FLUORIDE RESIST WITH THE SCANNING TUNNELING MICROSCOPE** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY B*  
McCord, M. A., Pease, R. F.  
1987; 5 (1): 430-433
- **A SCANNING TUNNELING MICROSCOPE FOR SURFACE MODIFICATION** *JOURNAL DE PHYSIQUE*  
McCord, M. A., Pease, R. F.  
1986; 47 (C-2): 485-491
- **SILVER DIFFUSION IN AG<sub>2</sub>SE/GESE<sub>2</sub> INORGANIC RESIST SYSTEM** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY B*  
POLASKO, K. J., Tsai, C. C., CAGAN, M. R., Pease, R. F.  
1986; 4 (1): 418-421
- **NEW TECHNIQUES FOR MODELING FOCUSED ION-BEAMS** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY B*  
NARUM, D. H., Pease, R. F.  
1986; 4 (1): 154-158
- **LITHOGRAPHY WITH THE SCANNING TUNNELING MICROSCOPE** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY B*  
McCord, M. A., Pease, R. F.  
1986; 4 (1): 86-88
- **EXCIMER LASER EXPOSURE OF AG<sub>2</sub>SE/GESE<sub>2</sub> - HIGH CONTRAST EFFECTS** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY B*  
POLASKO, K. J., Pease, R. F., Marinero, E. E., CAGAN, M. R.  
1985; 3 (1): 319-322
- **HIGH-RESOLUTION, LOW-VOLTAGE PROBES FROM A FIELD-EMISSION SOURCE CLOSE TO THE TARGET PLANE** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY B*  
McCord, M. A., Pease, R. F.  
1985; 3 (1): 198-201
- **DEEP UV EXPOSURE OF AG<sub>2</sub>SE/GESE<sub>2</sub> UTILIZING AN EXCIMER LASER** *IEEE ELECTRON DEVICE LETTERS*  
POLASKO, K. J., Ehrlich, D. J., Tsao, J. Y., Pease, R. F., Marinero, E. E.

1984; 5 (1): 24-26

- **ELECTRON-ELECTRON INTERACTIONS IN FINELY FOCUSED BEAMS OF LOW-ENERGY ELECTRONS** *JOURNAL OF THE ELECTROCHEMICAL SOCIETY*  
YAU, Y. W., Pease, R. F., Groves, T. R.  
1984; 131 (4): 894-896
- **RETARDING-FIELD OPTICS FOR PRACTICAL ELECTRON-BEAM LITHOGRAPHY** *PROCEEDINGS OF THE SOCIETY OF PHOTO-OPTICAL INSTRUMENTATION ENGINEERS*  
Newman, T. H., Pease, R. F.  
1984; 471: 25-30
- **LOW-ENERGY ELECTRON-BEAM LITHOGRAPHY** *OPTICAL ENGINEERING*  
POLASKO, K. J., YAU, Y. W., Pease, R. F.  
1983; 22 (2): 195-198
- **DOT MATRIX ELECTRON-BEAM LITHOGRAPHY** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY B*  
Newman, T. H., Pease, R. F., DeVore, W.  
1983; 1 (4): 999-1002
- **ELECTRON-BEAM EXPOSURE OF GESEX** *PROCEEDINGS OF THE SOCIETY OF PHOTO-OPTICAL INSTRUMENTATION ENGINEERS*  
POLASKO, K. J., Pease, R. F.  
1983; 393: 27-33
- **TEMPERATURE PROFILES IN SOLID TARGETS IRRADIATED WITH FINELY FOCUSED BEAMS** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY B*  
IRANMANESH, A. A., Pease, R. F.  
1983; 1 (1): 91-99
- **DIRECT MEASUREMENT OF TEMPERATURE PROFILES INDUCED BY FINELY FOCUSED BEAMS** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY A*  
IRANMANESH, A. A., Pease, R. F.  
1983; 1 (2): 739-742
- **FABRICATION ISSUES FOR NEXT-GENERATION CIRCUITS** *IEEE SPECTRUM*  
Pease, R. F.  
1983; 20 (11): 102-105
- **SPACE-CHARGE EFFECTS IN FOCUSED ION-BEAMS** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY B*  
YAU, Y. W., Groves, T. R., Pease, R. F.  
1983; 1 (4): 1141-1144
- **VLSI LITHOGRAPHY FOR THE 80S** *ISSCC DIGEST OF TECHNICAL PAPERS*  
Joy, R. C., ABRAHAM, H. E., GROBMAN, W. D., KING, M. C., Lepselter, M. P., Oldham, W. G., Pease, R. F., Terman, L. M., VARNELL, G. L.  
1982; 25: 222-223
- **LOW-ENERGY ELECTRON-BEAM LITHOGRAPHY** *PROCEEDINGS OF THE SOCIETY OF PHOTO-OPTICAL INSTRUMENTATION ENGINEERS*  
POLASKO, K. J., YAU, Y. W., Pease, R. F.  
1982; 333: 76-82
- **SPECIAL ISSUE ON HIGH-RESOLUTION FABRICATION OF ELECTRON DEVICES - FORWARD** *IEEE TRANSACTIONS ON ELECTRON DEVICES*  
Pease, R. F.  
1981; 28 (11): 1267-1267
- **ELECTRON-BEAM LITHOGRAPHY** *CONTEMPORARY PHYSICS*  
Pease, R. F.  
1981; 22 (3): 265-290
- **GENERATION AND APPLICATIONS OF FINELY FOCUSED BEAMS OF LOW-ENERGY ELECTRONS** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY*

YAU, Y. W., Pease, R. F., IRANMANESH, A. A., POLASKO, K. J.  
1981; 19 (4): 1048-1052

● **HIGH-PERFORMANCE HEAT SINKING FOR VLSI** *ELECTRON DEVICE LETTERS*

TUCKERMAN, D. B., Pease, R. F.  
1981; 2 (5): 126-129

● **LATERAL EPITAXIAL RECRYSTALLIZATION OF DEPOSITED SILICON FILMS ON SILICON DIOXIDE** *JOURNAL OF THE ELECTROCHEMICAL SOCIETY*

Kamins, T. I., CASS, T. R., DELLOCA, C. J., Lee, K. F., Pease, R. F., Gibbons, J. F.  
1981; 128 (5): 1151-1154

● **SCANNING-ELECTRON-BEAM ANNEALING OF ARSENIC-IMPLANTED SILICON** *APPLIED PHYSICS LETTERS*

Regolini, J. L., Gibbons, J. F., Sigmon, T. W., Pease, R. F., Magee, T. J., Peng, J.  
1979; 34 (6): 410-412