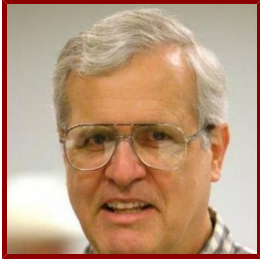


# Stanford

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## Piero Pianetta

Professor (Research) of Photon Science and of Electrical Engineering  
Photon Science Directorate

### Bio

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#### BIO

Pianetta's research is directed towards understanding how the atomic and electronic structure of semiconductor interfaces impacts device technology pertaining to advanced semiconductors and photocathodes. His research includes the development of new analytical tools for these studies based on the use of synchrotron radiation. These include the development of ultrasensitive methods to analyze trace impurities on the surface of silicon wafers at levels as low as  $1e-6$  monolayer ( $\sim 1e8$  atoms/cm<sup>2</sup>) and the use of various photoelectron spectroscopies (X-ray photoemission, NEXAFS, X-ray standing waves and photoelectron diffraction) to determine the bonding and atomic structure at the interface between silicon and different passivating layers. Recent projects include the development of high resolution ( $\sim 30$ nm) x-ray spectromicroscopy with applications to energy materials such as Li batteries.

#### ACADEMIC APPOINTMENTS

- Professor (Research), Photon Science Directorate
- Professor (Research), Electrical Engineering
- Member, Bio-X

#### ADMINISTRATIVE APPOINTMENTS

- Deputy Chief Research Officer, SLAC, (2020- present)
- Chair, Photon Science, SLAC, (2016-2020)
- Deputy Director for SSRL, SLAC, (2014- present)
- Director (Interim) for SSRL, SLAC, (2012-2014)
- Deputy Director for SSRL, SLAC, (2010-2012)
- Director (Acting) for SSRL, SLAC, (2009-2010)
- Deputy Director for SSRL, SLAC, (2005-2009)
- Assistant Director for SSRL, SLAC, (1993-2005)
- Associate Director, Stanford Synchrotron Radiation Laboratory, (1985-1993)

#### HONORS AND AWARDS

- Fellow, American Physical Society (2006)

#### BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Chair, Experimental Systems Advisory Committee, Advanced Photon Source, Argonne National Laboratory (2015 - present)

## PROFESSIONAL EDUCATION

- PhD, Stanford University , Applied Physics (1977)
- MS, Stanford University , Applied Physics (1973)
- BS, Santa Clara University , Physics (1971)

## PATENTS

- L. Hesselink, R.F.W. Pease, P. Pianetta, J.R. Maldonado, ^, Cheng, J. Ryan. "United States Patent 9,520,260 Photo emitter x-ray source array (PeXSA)", The Board of Trustees of the Leland Stanford Junior University, Palo Alto, CA (US), Dec 13, 2016
- J.R. Maldonado, Y-T Cheng, P. Pianetta, R.F.W. Pease, L. Hesselink. "United States Patent 9,406,488 Enhanced photoelectron sources using electron bombardment", The Board of Trustees of the Leland Stanford Junior University, Palo Alto, CA, Aug 2, 2016

## LINKS

- My SLAC faculty information: <https://faculty.slac.stanford.edu/photon-science-faculty-bios#Pianetta>
- My Google Scholar Page: [https://scholar.google.com/scholar?hl=en&as\\_sdt=0%2C5&q=piero+pianetta&btnG=](https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=piero+pianetta&btnG=)

## Teaching

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### COURSES

#### 2021-22

- The Electronic Structure of Surfaces and Interfaces: EE 329, PHOTON 329 (Aut)

#### 2019-20

- The Electronic Structure of Surfaces and Interfaces: EE 329, PHOTON 329 (Aut)

### STANFORD ADVISEES

#### Doctoral Dissertation Reader (AC)

Maha Yusuf

#### Postdoctoral Faculty Sponsor

Monty Cosby, Erick Espinosa Villatoro, Oliver Hoidn, Nathan Johnson, Sen Liu, Anjani Maurya, Peiyu Quan, Neha Sharma, Guibin Zan

#### Doctoral (Program)

Marc Jaikissoon, Melanie Murillo

## Publications

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### PUBLICATIONS

- **In-Situ Visualization of the Transition Metal Dissolution in Layered Cathodes** *JOURNAL OF ELECTROCHEMICAL ENERGY CONVERSION AND STORAGE*  
Qian, G., Zan, G., Li, J., Zhang, J., Pianetta, P., Liu, Y.  
2022; 19 (4)
- **In situ visualization of multicomponents coevolution in a battery pouch cell.** *Proceedings of the National Academy of Sciences of the United States of America*  
Zan, G., Qian, G., Gul, S., Li, J., Matusik, K., Wang, Y., Lewis, S., Yun, W., Pianetta, P., Vine, D. J., Li, L., Liu, Y.  
2022; 119 (29): e2203199119
- **Data-Driven Lithium-Ion Battery Cathode Research with State-of- the-Art Synchrotron X-ray Techniques** *ACCOUNTS OF MATERIALS RESEARCH*  
Xue, Z., Li, J., Pianetta, P., Liu, Y.  
2022
- **Deep-Learning-Enabled Crack Detection and Analysis in Commercial Lithium-Ion Battery Cathodes** *ADVANCED FUNCTIONAL MATERIALS*

- Fu, T., Monaco, F., Li, J., Zhang, K., Yuan, Q., Cloetens, P., Pianetta, P., Liu, Y.  
2022
- **Dynamics of particle network in composite battery cathodes.** *Science (New York, N.Y.)*  
Li, J., Sharma, N., Jiang, Z., Yang, Y., Monaco, F., Xu, Z., Hou, D., Ratner, D., Pianetta, P., Cloetens, P., Lin, F., Zhao, K., Liu, et al  
2022; 376 (6592): 517-521
  - **Structural, Dynamic, and Chemical Complexities in Zinc Anode of an Operating Aqueous Zn-Ion Battery** *ADVANCED ENERGY MATERIALS*  
Qian, G., Zan, G., Li, J., Lee, S., Wang, Y., Zhu, Y., Gul, S., Vine, D. J., Lewis, S., Yun, W., Ma, Z., Pianetta, P., Lee, et al  
2022
  - **Probing lattice defects in crystalline battery cathode using hard X-ray nanoprobe with data-driven modeling** *ENERGY STORAGE MATERIALS*  
Li, J., Hong, Y., Yan, H., Chu, Y. S., Pianetta, P., Li, H., Ratner, D., Huang, X., Yu, X., Liu, Y.  
2022; 45: 647-655
  - **Value-creating upcycling of retired electric vehicle battery cathodes** *CELL REPORTS PHYSICAL SCIENCE*  
Qian, G., Li, Z., Wang, Y., Xie, X., He, Y., Li, J., Zhu, Y., Xie, S., Cheng, Z., Che, H., Shen, Y., Chen, L., Huang, et al  
2022; 3 (2)
  - **Thermal-healing of lattice defects for high-energy single-crystalline battery cathodes.** *Nature communications*  
Li, S., Qian, G., He, X., Huang, X., Lee, S., Jiang, Z., Yang, Y., Wang, W., Meng, D., Yu, C., Lee, J., Chu, Y. S., Ma, et al  
2022; 13 (1): 704
  - **Structural and chemical evolution in layered oxide cathodes of lithium-ion batteries revealed by synchrotron techniques.** *National science review*  
Qian, G., Wang, J., Li, H., Ma, Z., Pianetta, P., Li, L., Yu, X., Liu, Y.  
2022; 9 (2): nwab146
  - **In Situ Visualization of Li-Whisker with Grating-Interferometry-Based Tricontrast X-ray Microtomography** *ACS MATERIALS LETTERS*  
Zan, G., Qian, G., Gul, S., Pan, H., Li, Q., Li, J., Vine, D. J., Lewis, S., Yun, W., Pianetta, P., Li, H., Yu, X., Liu, et al  
2021; 3 (12): 1786-1792
  - **Machine-and-data intelligence for synchrotron science** *NATURE REVIEWS PHYSICS*  
Li, J., Huang, X., Pianetta, P., Liu, Y.  
2021
  - **Deep-learning-based image registration for nano-resolution tomographic reconstruction.** *Journal of synchrotron radiation*  
Fu, T., Zhang, K., Wang, Y., Li, J., Zhang, J., Yao, C., He, Q., Wang, S., Huang, W., Yuan, Q., Pianetta, P., Liu, Y.  
2021; 28 (Pt 6): 1909-1915
  - **The role of structural defects in commercial lithium-ion batteries** *CELL REPORTS PHYSICAL SCIENCE*  
Qian, G., Monaco, F., Meng, D., Lee, S., Zan, G., Li, J., Karpov, D., Gul, S., Vine, D., Stripe, B., Zhang, J., Lee, J., Ma, et al  
2021; 2 (9)
  - **Novel Ultrabright and Air-Stable Photocathodes Discovered from Machine Learning and Density Functional Theory Driven Screening.** *Advanced materials (Deerfield Beach, Fla.)*  
Antoniuk, E. R., Schindler, P., Schroeder, W. A., Dunham, B., Pianetta, P., Vecchione, T., Reed, E. J.  
2021: e2104081
  - **Multiphase, Multiscale Chemomechanics at Extreme Low Temperatures: Battery Electrodes for Operation in a Wide Temperature Range** *ADVANCED ENERGY MATERIALS*  
Li, J., Li, S., Zhang, Y., Yang, Y., Russi, S., Qian, G., Mu, L., Lee, S., Yang, Z., Lee, J., Pianetta, P., Qiu, J., Ratner, et al  
2021
  - **High-resolution multicontrast tomography with an X-ray microarray anode-structured target source.** *Proceedings of the National Academy of Sciences of the United States of America*  
Zan, G., Gul, S., Zhang, J., Zhao, W., Lewis, S., Vine, D. J., Liu, Y., Pianetta, P., Yun, W.  
2021; 118 (25)
  - **Fast Li Plating Behavior Probed by X-ray Computed Tomography.** *Nano letters*  
Pan, H., Fu, T., Zan, G., Chen, R., Yao, C., Li, Q., Pianetta, P., Zhang, K., Liu, Y., Yu, X., Li, H.  
2021

- **Selective dopant segregation modulates mesoscale reaction kinetics in layered transition metal oxide** *NANO ENERGY*  
Qian, G., Huang, H., Hou, F., Wang, W., Wang, Y., Lin, J., Lee, S., Yan, H., Chu, Y. S., Pianetta, P., Huang, X., Ma, Z., Li, et al  
2021; 84
- **Understanding multi-scale battery degradation with a macro-to-nano zoom through its hierarchy** *JOURNAL OF MATERIALS CHEMISTRY A*  
Zan, G., Zhang, J., Monaco, F., Gul, S., Qian, G., Li, J., Vine, D. J., Cloetens, P., Yun, W., Pianetta, P., Liu, Y.  
2021
- **Understanding the Mesoscale Degradation in Nickel-Rich Cathode Materials through Machine-Learning-Revealed Strain-Redox Decoupling** *ACS ENERGY LETTERS*  
Qian, G., Zhang, J., Chu, S., Li, J., Zhang, K., Yuan, Q., Ma, Z., Pianetta, P., Li, L., Jung, K., Liu, Y.  
2021; 6 (2): 687–93
- **Automatic 3D image registration for nano-resolution chemical mapping using synchrotron spectro-tomography.** *Journal of synchrotron radiation*  
Zhang, J., Hu, J., Jiang, Z., Zhang, K., Liu, P., Wang, C., Yuan, Q., Pianetta, P., Liu, Y.  
2021; 28 (Pt 1): 278–82
- **Depth-dependent valence stratification driven by oxygen redox in lithium-rich layered oxide.** *Nature communications*  
Zhang, J., Wang, Q., Li, S., Jiang, Z., Tan, S., Wang, X., Zhang, K., Yuan, Q., Lee, S., Titus, C. J., Irwin, K. D., Nordlund, D., Lee, et al  
2020; 11 (1): 6342
- **Operando Tailoring of Defects and Strains in Corrugated beta-Ni(OH)<sub>2</sub> Nanosheets for Stable and High-Rate Energy Storage.** *Advanced materials (Deerfield Beach, Fla.)*  
Li, S., Sharma, N., Yu, C., Zhang, Y., Wan, G., Fu, R., Huang, H., Sun, X., Lee, S., Lee, J., Nordlund, D., Pianetta, P., Zhao, et al  
2020: e2006147
- **Hybrid real- and reciprocal-space full-field imaging with coherent illumination** *JOURNAL OF OPTICS*  
Li, P., Wakatsuki, S., Pianetta, P. A., Liu, Y.  
2020; 22 (11)
- **Hierarchical Defect Engineering for LiCoO<sub>2</sub> through Low-Solubility Trace Element Doping** *CHEM*  
Hong, Y., Huang, X., Wei, C., Wang, J., Zhang, J., Yan, H., Chu, Y. S., Pianetta, P., Xiao, R., Yu, X., Liu, Y., Li, H.  
2020; 6 (10): 2759–69
- **Mutual modulation between surface chemistry and bulk microstructure within secondary particles of nickel-rich layered oxides.** *Nature communications*  
Li, S., Jiang, Z., Han, J., Xu, Z., Wang, C., Huang, H., Yu, C., Lee, S., Pianetta, P., Ohldag, H., Qiu, J., Lee, J., Lin, et al  
2020; 11 (1): 4433
- **Generalizable density functional theory based photoemission model for the accelerated development of photocathodes and other photoemissive devices** *PHYSICAL REVIEW B*  
Antoniuk, E. R., Yue, Y., Zhou, Y., Schindler, P., Schroeder, W., Dunham, B., Pianetta, P., Vecchione, T., Reed, E. J.  
2020; 101 (23)
- **Machine-learning-revealed statistics of the particle-carbon/binder detachment in lithium-ion battery cathodes.** *Nature communications*  
Jiang, Z., Li, J., Yang, Y., Mu, L., Wei, C., Yu, X., Pianetta, P., Zhao, K., Cloetens, P., Lin, F., Liu, Y.  
2020; 11 (1): 2310
- **Quantifying redox heterogeneity in single-crystalline LiCoO<sub>2</sub> cathode particles.** *Journal of synchrotron radiation*  
Wei, C., Hong, Y., Tian, Y., Yu, X., Liu, Y., Pianetta, P.  
2020; 27 (Pt 3): 713–19
- **Operando Revealing Dynamic Reconstruction of NiCo Carbonate Hydroxide for High-Rate Energy Storage** *JOULE*  
Li, S., Zhang, Y., Liu, N., Yu, C., Lee, S., Zhou, S., Fu, R., Yang, J., Guo, W., Huang, H., Lee, J., Wang, C., Kim, et al  
2020; 4 (3): 673–87
- **Revealing the inhomogeneous surface chemistry on the spherical layered oxide polycrystalline cathode particles** *CHINESE PHYSICS B*  
Jiang, Z., Li, S., Xu, Z., Nordlund, D., Ohldag, H., Pianetta, P., Lee, J., Lin, F., Liu, Y.  
2020; 29 (2)
- **Surface Photovoltage-Induced Ultralow Work Function Material for Thermionic Energy Converters** *ACS ENERGY LETTERS*

- Schindler, P., Riley, D. C., Bargatin, I., Sahasrahudde, K., Schwede, J. W., Sun, S., Pianetta, P., Shen, Z., Howe, R. T., Melosh, N. A.  
2019; 4 (10): 2436–43
- **Simultaneous three-dimensional elemental mapping of Hollandite and Pyrochlore material phases in ceramic waste form materials** *JOURNAL OF THE AMERICAN CERAMIC SOCIETY*  
Damian, P. C., Cocco, A. P., Wrubel, J. A., Hong, T., Bordia, R. K., Liu, Y., Pianetta, P., Amoroso, J. W., Brinkman, K. S., Chiu, W. S.  
2019; 102 (9): 5620–31
  - **Quantification of Heterogeneous Degradation in Li-Ion Batteries** *ADVANCED ENERGY MATERIALS*  
Yang, Y., Xu, R., Zhang, K., Lee, S., Mu, L., Liu, P., Waters, C. K., Spence, S., Xu, Z., Wei, C., Kautz, D. J., Yuan, Q., Dong, et al  
2019; 9 (25)
  - **High-Voltage Charging-Induced Strain, Heterogeneity, and Micro-Cracks in Secondary Particles of a Nickel-Rich Layered Cathode Material** *ADVANCED FUNCTIONAL MATERIALS*  
Mao, Y., Wang, X., Xia, S., Zhang, K., Wei, C., Bak, S., Shadike, Z., Liu, X., Yang, Y., Xu, R., Pianetta, P., Ermon, S., Stavitski, et al  
2019; 29 (18)
  - **Surface-to-Bulk Redox Coupling through Thermally Driven Li Redistribution in Li- and Mn-Rich Layered Cathode Materials.** *Journal of the American Chemical Society*  
Li, S. n., Lee, S. J., Wang, X. n., Yang, W. n., Huang, H. n., Swetz, D. S., Doriese, W. B., O'Neil, G. C., Ullom, J. N., Titus, C. J., Irwin, K. D., Lee, H. K., Nordlund, et al  
2019
  - **Thermally driven mesoscale chemomechanical interplay in Li<sub>0.5</sub>Ni<sub>0.6</sub>Mn<sub>0.2</sub>Co<sub>0.2</sub>O<sub>2</sub> cathode materials** *JOURNAL OF MATERIALS CHEMISTRY A*  
Wei, C., Zhang, Y., Lee, S., Mu, L., Liu, J., Wang, C., Yang, Y., Doeff, M., Pianetta, P., Nordlund, D., Du, X., Tian, Y., Zhao, et al  
2018; 6 (45): 23055–61
  - **Chemomechanical interplay of layered cathode materials undergoing fast charging in lithium batteries** *NANO ENERGY*  
Xia, S., Mu, L., Xu, Z., Wang, J., Wei, C., Liu, L., Pianetta, P., Zhao, K., Yu, X., Lin, F., Liu, Y.  
2018; 53: 753–62
  - **Automatic projection image registration for nanoscale X-ray tomographic reconstruction.** *Journal of synchrotron radiation*  
Yu, H., Xia, S., Wei, C., Mao, Y., Larsson, D., Xiao, X., Pianetta, P., Yu, Y. S., Liu, Y.  
2018; 25 (Pt 6): 1819–26
  - **Understanding the Effect of Local Short-Range Ordering on Lithium Diffusion in Li<sub>1.3</sub>Nb<sub>0.3</sub>Mn<sub>0.4</sub>O<sub>2</sub> Single-Crystal Cathode** *CHEM*  
Kan, W., Deng, B., Xu, Y., Shukla, A., Bo, T., Zhang, S., Liu, J., Pianetta, P., Wang, B., Liu, Y., Chen, G.  
2018; 4 (9): 2108–23
  - **Propagation topography of redox phase transformations in heterogeneous layered oxide cathode materials** *NATURE COMMUNICATIONS*  
Mu, L., Yuan, Q., Tian, C., Wei, C., Zhang, K., Liu, J., Pianetta, P., Doeff, M. M., Liu, Y., Lin, F.  
2018; 9: 2810
  - **Mesoscale Battery Science: The Behavior of Electrode Particles Caught on a Multispectral X-ray Camera.** *Accounts of chemical research*  
Wei, C., Xia, S., Huang, H., Mao, Y., Pianetta, P., Liu, Y.  
2018
  - **Scientific data mining in nanoscale visualization of catalysis at work**  
Liu, Y., Meirer, F., Weckhuysen, B., Pianetta, P.  
AMER CHEMICAL SOC.2018
  - **Intensity modulation of the Shirley background of the Cr 3p spectra with photon energies around the Cr 2p edge** *SURFACE AND INTERFACE ANALYSIS*  
Herrera-Gomez, A., Cabrera-German, D., Dutoi, A. D., Vazquez-Lepe, M., Aguirre-Tostado, S., Pianetta, P., Nordlund, D., Cortazar-Martinez, O., Torres-Ochoa, A., Ceballos-Sanchez, O., Gomez-Munoz, L.  
2018; 50 (2): 246–52
  - **Finding a Needle in the Haystack: Identification of Functionally Important Minority Phases in an Operating Battery** *NANO LETTERS*  
Zhang, K., Ren, F., Wang, X., Hu, E., Xu, Y., Yang, X., Li, H., Chen, L., Pianetta, P., Mehta, A., Yu, X., Liu, Y.  
2017; 17 (12): 7782–88
  - **Three-dimensional mapping of crystalline ceramic waste form materials** *JOURNAL OF THE AMERICAN CERAMIC SOCIETY*

- 
- Cocco, A. P., DeGostin, M. B., Wrubel, J. A., Damian, P. J., Hong, T., Xu, Y., Liu, Y., Pianetta, P., Amoroso, J. W., Brinkman, K. S., Chiu, W. S.  
2017; 100 (8): 3722-3735
- **In situ Visualization of State-of-Charge Heterogeneity within a LiCoO<sub>2</sub> Particle that Evolves upon Cycling at Different Rates** *ACS ENERGY LETTERS*  
Xu, Y., Hu, E., Zhang, K., Wang, X., Borzenets, V., Sun, Z., Pianetta, P., Yu, X., Liu, Y., Yang, X., Li, H.  
2017; 2 (5): 1240-1245
  - **Ultrasensitive probing of the local electronic structure of nitrogen doped carbon and its applications to 2D electronics, catalysis and bio-physics**  
Lee, S., Mori, R., Alpert, B., Baker, M., Berry, J., Cho, H., Denison, E., Doriese, W., Fowler, J., Gaffney, K., Gao, B., Gard, J., Hilton, et al  
AMER CHEMICAL SOC.2017
  - **Applications of x-ray tomography across multiple length scales**  
Pianetta, P.  
AMER CHEMICAL SOC.2017
  - **Back-gated graphene anode for more efficient thermionic energy converters** *NANO ENERGY*  
Yuan, H., Riley, D. C., Shen, Z., Pianetta, P. A., Melosh, N. A., Howe, R. T.  
2017; 32: 67-72
  - **Determination of copper nanoparticle size distributions with total reflection X-ray fluorescence spectroscopy** *JOURNAL OF SYNCHROTRON RADIATION*  
Singh, A., Luening, K., Brennan, S., Homma, T., Kubo, N., Nowak, S. H., Pianetta, P.  
2017; 24: 283-287
  - **Analysis of Cathodic Reaction Process of SiCl<sub>4</sub> during Si Electrodeposition in Ionic Liquids** *JOURNAL OF THE ELECTROCHEMICAL SOCIETY*  
Tsuyuki, Y., Fujimura, T., Kunimoto, M., Fukunaka, Y., Pianetta, P., Homma, T.  
2017; 164 (14): D994–D998
  - **Unsupervised Data Mining in nanoscale X-ray Spectro-Microscopic Study of NdFeB Magnet** *SCIENTIFIC REPORTS*  
Duan, X., Yang, F., Antono, E., Yang, W., Pianetta, P., Ermon, S., Mehta, A., Liu, Y.  
2016; 6
  - **Interface Engineering for Atomic Layer Deposited Alumina Gate Dielectric on SiGe Substrates.** *ACS applied materials & interfaces*  
Zhang, L., Guo, Y., Hassan, V. V., Tang, K., Foad, M. A., Woicik, J. C., Pianetta, P., Robertson, J., McIntyre, P. C.  
2016; 8 (29): 19110-19118
  - **Recent applications of hard x-ray photoelectron spectroscopy** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY A*  
Weiland, C., Rumaiz, A. K., Pianetta, P., Woicik, J. C.  
2016; 34 (3)
  - **Reverse engineering ancient Athenian pottery: A collaboration between cultural heritage, industry, and academia**  
Trentelman, K., Cianchetta, I., Walton, M., Mehta, A., Pianetta, P., Foran, B., Saunders, D., Maish, J.  
AMER CHEMICAL SOC.2016
  - **Imaging of hierarchical structures with x-rays**  
Pianetta, P.  
AMER CHEMICAL SOC.2016
  - **To get the most out of high resolution X-ray tomography: A review of the post-reconstruction analysis** *SPECTROCHIMICA ACTA PART B-ATOMIC SPECTROSCOPY*  
Liu, Y., Kiss, A. M., Larsson, D. H., Yang, F., Pianetta, P.  
2016; 117: 29-41
  - **Formation of Si<sup>1+</sup> in the early stages of the oxidation of the Si[001] 2x1 surface** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY A*  
Herrera-Gomez, A., Aguirre-Tostado, F., Pianetta, P.  
2016; 34 (2)
  - **Characterization of electronic structure of periodically strained graphene** *APPLIED PHYSICS LETTERS*  
Aslani, M., Garner, C. M., Kumar, S., Nordlund, D., Pianetta, P., Nishi, Y.  
2015; 107 (18)
-

- **Engineering Ultra-Low Work Function of Graphene** *NANO LETTERS*  
Yuan, H., Chang, S., Bargatin, I., Wang, N. C., Riley, D. C., Wang, H., Schwede, J. W., Provine, J., Pop, E., Shen, Z., Pianetta, P. A., Melosh, N. A., Howe, et al  
2015; 15 (10): 6475-6480
- **High gradient rf gun studies of CsBr photocathodes** *PHYSICAL REVIEW SPECIAL TOPICS-ACCELERATORS AND BEAMS*  
Vecchione, T., Maldonado, J. R., Gierman, S., Corbett, J., Hartmann, N., Pianetta, P. A., Hesselink, L., Schmerge, J. F.  
2015; 18 (4)
- **Registration of the rotation axis in X-ray tomography.** *Journal of synchrotron radiation*  
Yang, Y., Yang, F., Hingerl, F. F., Xiao, X., Liu, Y., Wu, Z., Benson, S. M., Toney, M. F., Andrews, J. C., Pianetta, P.  
2015; 22: 452-457
- **Evidence for an unorthodox firing sequence employed by the Berlin Painter: deciphering ancient ceramic firing conditions through high-resolution material characterization and replication** *JOURNAL OF ANALYTICAL ATOMIC SPECTROMETRY*  
Cianchetta, I., Trentelman, K., Maish, J., Saunders, D., Foran, B., Walton, M., Sciau, P., Wang, T., Pouyet, E., Cotte, M., Meirer, F., Liu, Y., Pianetta, et al  
2015; 30 (3): 666-676
- **Nanoscale Morphological and Chemical Changes of High Voltage Lithium Manganese Rich NMC Composite Cathodes with Cycling** *NANO LETTERS*  
Yang, F., Liu, Y., Martha, S. K., Wu, Z., Andrews, J. C., Ice, G. E., Pianetta, P., Nanda, J.  
2014; 14 (8): 4334-4341
- **A cesium bromide photocathode excited by 405 nm radiation** *APPLIED PHYSICS LETTERS*  
Maldonado, J. R., Cheng, Y. T., Pianetta, P., Pease, F. W., Hesselink, L.  
2014; 105 (2)
- **Recent advances in synchrotron-based hard x-ray phase contrast imaging** *JOURNAL OF PHYSICS D-APPLIED PHYSICS*  
Liu, Y., Nelson, J., HOLZNER, C., Andrews, J. C., Pianetta, P.  
2013; 46 (49)
- **The plastic nature of the human bone-periodontal ligament-tooth fibrous joint** *BONE*  
Ho, S. P., Kurylo, M. P., Grandfield, K., Hurng, J., Herber, R., Ryder, M. I., Altoe, V., Aloni, S., Feng, J. Q., Webb, S., Marshall, G. W., Curtis, D., Andrews, et al  
2013; 57 (2): 455-467
- **Microgravity Induces Pelvic Bone Loss through Osteoclastic Activity, Osteocytic Osteolysis, and Osteoblastic Cell Cycle Inhibition by CDKN1a/p21** *PLOS ONE*  
Blaber, E. A., Dvorochkin, N., Lee, C., Alwood, J. S., Yousuf, R., Pianetta, P., Globus, R. K., Burns, B. P., Almeida, E. A.  
2013; 8 (4)
- **Three-dimensional microstructural mapping of poisoning phases in the Neodymium Nickelate solid oxide fuel cell cathode** *SOLID STATE IONICS*  
Harris, W. M., Lombardo, J. J., DeGostin, M. B., Nelson, G. J., Luebbe, H., Schuler, J. A., Van herle, J., Andrews, J. C., Liu, Y., Pianetta, P., Chen, Y. K., Wang, J., Chiu, et al  
2013; 237: 16-21
- **Nanoscale Examination of Microdamage in Sheep Cortical Bone Using Synchrotron Radiation Transmission X-Ray Microscopy** *PLOS ONE*  
Brock, G. R., Kim, G., Ingrassia, A. R., Andrews, J. C., Pianetta, P., van der Meulen, M. C.  
2013; 8 (3)
- **In Vacuo Photoemission Studies of Platinum Atomic Layer Deposition Using Synchrotron Radiation** *JOURNAL OF PHYSICAL CHEMISTRY LETTERS*  
Geyer, S. M., Methaapanon, R., Shong, B., Pianetta, P. A., Bent, S. F.  
2013; 4 (1): 176-179
- **In Vacuo Photoemission Studies of Platinum Atomic Layer Deposition Using Synchrotron Radiation.** *The journal of physical chemistry letters*  
Geyer, S. M., Methaapanon, R., Shong, B., Pianetta, P. A., Bent, S. F.  
2013; 4 (1): 176-9
- **Portable atomic layer deposition reactor for in situ synchrotron photoemission studies.** *Review of scientific instruments*  
Methaapanon, R., Geyer, S. M., Hagglund, C., Pianetta, P. A., Bent, S. F.  
2013; 84 (1): 015104-?
- **Study on the synthesis-microstructure-performance relationship of layered Li-excess nickel-manganese oxide as a Li-ion battery cathode prepared by high-temperature calcination** *JOURNAL OF MATERIALS CHEMISTRY A*

Chen, W., Song, Y., Wang, C., Liu, Y., Morris, D. T., Pianetta, P. A., Andrews, J. C., Wu, H., Wu, N.

2013; 1 (36): 10847-10856

- **Data-processing strategies for nano-tomography with elemental specification** *SPIE X-ray Nanoimaging Conference - Instruments and Methods*  
Liu, Y., Cats, K. H., Weker, J. N., Andrews, J. C., Weckhuysen, B. M., Pianetta, P.  
SPIE-INT SOC OPTICAL ENGINEERING.2013
- **Portable atomic layer deposition reactor for in situ synchrotron photoemission studies** *REVIEW OF SCIENTIFIC INSTRUMENTS*  
Methaapanon, R., Geyer, S. M., Hagglund, C., Pianetta, P. A., Bent, S. F.  
2013; 84 (1)
- **Photocathode device using diamondoid and cesium bromide films** *APPLIED PHYSICS LETTERS*  
Clay, W. A., Maldonado, J. R., Pianetta, P., Dahl, J. E., Carlson, R. M., Schreiner, P. R., Fokin, A. A., Tkachenko, B. A., Melosh, N. A., Shen, Z.  
2012; 101 (24)
- **Experimental verification of the 3-step model of photoemission for energy spread and emittance measurements of copper and CsBr-coated copper photocathodes suitable for free electron laser applications** *APPLIED PHYSICS LETTERS*  
Maldonado, J. R., Pianetta, P., Dowell, D. H., Corbett, J., Park, S., Schmerge, J., Trautwein, A., Clay, W.  
2012; 101 (23)
- **Formation of arsenolite crystals at room temperature after very high dose arsenic implantation in silicon** *APPLIED PHYSICS LETTERS*  
Meirer, F., Giubertoni, D., Demenev, E., Vanzetti, L., Gennaro, S., Fedrizzi, M., Peponi, G., Mehta, A., Pianetta, P., Steinhäuser, G., Vishwanath, V., Foad, M., Bersani, et al  
2012; 101 (23)
- **Extended depth of focus for transmission x-ray microscope** *OPTICS LETTERS*  
Liu, Y., Wang, J., Hong, Y., Wang, Z., Zhang, K., Williams, P. A., Zhu, P., Andrews, J. C., Pianetta, P., Wu, Z.  
2012; 37 (17): 3708-3710
- **3D elemental sensitive imaging using transmission X-ray microscopy** *ANALYTICAL AND BIOANALYTICAL CHEMISTRY*  
Liu, Y., Meirer, F., Wang, J., Requena, G., Williams, P., Nelson, J., Mehta, A., Andrews, J. C., Pianetta, P.  
2012; 404 (5): 1297-1301
- **In situ transmission X-ray microscopy and nanotomography on Fischer-Tropsch catalysts**  
Cats, K., Gonzalez-Jimenez, I., Davidian, T., Ruitenbeek, M., Meirer, F., Liu, Y., Nelson, J., Andrews, J. C., Pianetta, P., de Groot, F. F., Weckhuysen, B. M.  
AMER CHEMICAL SOC.2012
- **TXM-Wizard: a program for advanced data collection and evaluation in full-field transmission X-ray microscopy** *JOURNAL OF SYNCHROTRON RADIATION*  
Liu, Y., Meirer, F., Williams, P. A., Wang, J., Andrews, J. C., Pianetta, P.  
2012; 19: 281-287
- **Formation Of Arsenic Rich Silicon Oxide Under Plasma Immersion Ion Implantation And Laser Annealing** *19th International Conference on Ion Implantation Technology (IIT)*  
Meirer, F., Demenev, E., Giubertoni, D., Gennaro, S., VANZETTI, L., Peponi, G., Bersani, M., Sahiner, M. A., Steinhäuser, G., Foad, M. A., Woicik, J. C., Mehta, A., Pianetta, et al  
AMER INST PHYSICS.2012: 183-188
- **FULL FIELD IMAGING OF NICKEL OXIDATION STATES IN SOLID OXIDE FUEL CELL ANODE MATERIALS BY XANES NANOTOMOGRAPHY** *9th International Conference on Fuel Cell Science, Engineering and Technology*  
Harris, W. M., Nelson, G. J., Izzo, J. R., Grew, K. N., Chiu, W. K., Chu, Y. S., Yi, J., Andrews, J., Liu, Y., Pianetta, P.  
AMER SOC MECHANICAL ENGINEERS.2012: 267-269
- **ANALYSIS OF SOLID OXIDE FUEL CELL LSM-YSZ COMPOSITE CATHODES WITH VARYING STARTING POWDER SIZES** *ASME International Mechanical Engineering Congress and Exposition (IMECE)*  
Harris, W. M., Nelson, G. J., Lombardo, J. J., Cocco, A. P., Izzo, J. R., Chiu, W. K., Tanasini, P., Van herle, J., Comninellis, C., Andrews, J. C., Liu, Y., Pianetta, P., Chu, et al  
AMER SOC MECHANICAL ENGINEERS.2012: 581-584
- **Hard X-ray Nanotomography of Catalytic Solids at Work** *ANGEWANDTE CHEMIE-INTERNATIONAL EDITION*  
Gonzalez-Jimenez, I. D., Cats, K., Davidian, T., Ruitenbeek, M., Meirer, F., Liu, Y., Nelson, J., Andrews, J. C., Pianetta, P., de Groot, F. M., Weckhuysen, B. M.



2012; 51 (48): 11986-11990

- **Ultrathin ALD-Al<sub>2</sub>O<sub>3</sub> layers for Ge(001) gate stacks: Local composition evolution and dielectric properties** *JOURNAL OF APPLIED PHYSICS*  
Swaminathan, S., Sun, Y., Pianetta, P., McIntyre, P. C.  
2011; 110 (9)
- **Electron bombardment of films used for reducing spurious charge in electrostatic electron optics** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY B*  
Maldonado, J. R., Pease, F., Hitzman, C. J., Brodie, A. D., Petric, P., Bevis, C., McCord, M., Tong, W. M., Kidwingira, F., Pianetta, P., Bibee, M., Mehta, A., Bhatia, et al  
2011; 29 (6)
- **Three-dimensional imaging of chemical phase transformations at the nanoscale with full-field transmission X-ray microscopy** *JOURNAL OF SYNCHROTRON RADIATION*  
Meirer, F., Cabana, J., Liu, Y., Mehta, A., Andrews, J. C., Pianetta, P.  
2011; 18: 773-781
- **Transmission X-Ray Microscopy for Full-Field Nano Imaging of Biomaterials** *MICROSCOPY RESEARCH AND TECHNIQUE*  
Andrews, J. C., Meirer, F., Liu, Y., Mester, Z., Pianetta, P.  
2011; 74 (7): 671-681
- **Device quality Sb-based compound semiconductor surface: A comparative study of chemical cleaning** *JOURNAL OF APPLIED PHYSICS*  
Nainani, A., Sun, Y., Irisawa, T., Yuan, Z., Kobayashi, M., Pianetta, P., Bennett, B. R., Boos, J. B., Saraswat, K. C.  
2011; 109 (11)
- **Comparison of SOFC cathode microstructure quantified using X-ray nanotomography and focused ion beam-scanning electron microscopy** *ELECTROCHEMISTRY COMMUNICATIONS*  
Nelson, G. J., Harris, W. M., Lombardo, J. J., Izzo, J. R., Chiu, W. K., Tanasini, P., Cantoni, M., Van herle, J., Comninellis, C., Andrews, J. C., Liu, Y., Pianetta, P., Chu, et al  
2011; 13 (6): 586-589
- **Schottky barrier height reduction for metal/n-GaSb contact by inserting TiO<sub>2</sub> interfacial layer with low tunneling resistance** *APPLIED PHYSICS LETTERS*  
Yuan, Z., Nainani, A., Sun, Y., Lin, J. J., Pianetta, P., Saraswat, K. C.  
2011; 98 (17)
- **Three-dimensional mapping of nickel oxidation states using full field x-ray absorption near edge structure nanotomography** *APPLIED PHYSICS LETTERS*  
Nelson, G. J., Harris, W. M., Izzo, J. R., Grew, K. N., Chiu, W. K., Chu, Y. S., Yi, J., Andrews, J. C., Liu, Y., Pianetta, P.  
2011; 98 (17)
- **3D nanoscale chemical imaging of Li-ion battery electrodes** *241st National Meeting and Exposition of the American-Chemical-Society (ACS)*  
Andrews, J. C., Meirer, F., Cabana, J., Liu, Y., Pianetta, P.  
AMER CHEMICAL SOC.2011
- **Phase retrieval using polychromatic illumination for transmission X-ray microscopy** *OPTICS EXPRESS*  
Liu, Y., Andrews, J. C., Wang, J., Meirer, F., Zhu, P., Wu, Z., Pianetta, P.  
2011; 19 (2): 540-545
- **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
- **3D Imaging of Nickel Oxidation States using Full Field X-ray Absorption Near Edge Structure Nanotomography** *12th International Symposium on Solid Oxide Fuel Cells (SOFC)*  
Nelson, G. J., Harris, W. M., Izzo, J. R., Grew, K. N., Chiu, W. K., Chu, Y. S., Yi, J., Andrews, J. C., Liu, Y., Pianetta, P.  
ELECTROCHEMICAL SOC INC.2011: 1315-21
- **Comparison of X-ray Nanotomography and FIB-SEM in Quantifying the Composite LSM/YSZ SOFC Cathode Microstructure** *12th International Symposium on Solid Oxide Fuel Cells (SOFC)*  
Nelson, G. J., Harris, W. M., Lombardo, J. J., Izzo, J. R., Chiu, W. K., Tanasini, P., Cantoni, M., Van herle, J., Comninellis, C., Andrews, J. C., Liu, Y., Pianetta, P., Chu, et al  
ELECTROCHEMICAL SOC INC.2011: 2417-21

- **Applications of Hard X-ray Full-Field Transmission X-ray Microscopy at SSRL** *10th International Conference on X-ray Microscopy*  
Liu, Y., Andrews, J. C., Meirer, F., Mehta, A., Carrasco Gil, S., Sciau, P., Mester, Z., Pianetta, P.  
AMER INST PHYSICS.2011: 357-360
- **A Condenser Scanner for Artifact-Free, Large Field of View, Full-Field X-ray Microscopy at Synchrotrons** *10th International Conference on X-ray Microscopy*  
Rudati, J., Irwin, J., Tkachuk, A., Andrews, J. C., Pianetta, P., Feser, M.  
AMER INST PHYSICS.2011: 136-139
- **High-Mobility Ge N-MOSFETs and Mobility Degradation Mechanisms** *IEEE TRANSACTIONS ON ELECTRON DEVICES*  
Kuzum, D., Krishnamohan, T., Nainani, A., Sun, Y., Pianetta, P. A., Wong, H. P., Saraswat, K. C.  
2011; 58 (1): 59-66
- **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
- **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
- **Photon-enhanced thermionic emission for solar concentrator systems** *NATURE MATERIALS*  
Schwede, J. W., Bargatin, I., Riley, D. C., Hardin, B. E., Rosenthal, S. J., Sun, Y., Schmitt, F., Pianetta, P., Howe, R. T., Shen, Z., Melosh, N. A.  
2010; 9 (9): 762-767
- **3D nanoscale imaging of the yeast, *Schizosaccharomyces pombe*, by full-field transmission X-ray microscopy at 5.4 keV** *ANALYTICAL AND BIOANALYTICAL CHEMISTRY*  
Chen, J., Yang, Y., Zhang, X., Andrews, J. C., Pianetta, P., Guan, Y., Liu, G., Xiong, Y., Wu, Z., Tian, Y.  
2010; 397 (6): 2117-2121
- **The dependence of the oxidation enhancement of InP(100) surface on the coverage of the adsorbed Cs** *JOURNAL OF APPLIED PHYSICS*  
Sun, Y., Liu, Z., Pianetta, P.  
2010; 107 (12)
- **Reaction Mechanism, Bonding, and Thermal Stability of 1-Alkanethiols Self-Assembled on Halogenated Ge Surfaces** *LANGMUIR*  
Ardalan, P., Sun, Y., Pianetta, P., Musgrave, C. B., Bent, S. F.  
2010; 26 (11): 8419-8429
- **Synchrotron radiation-induced total reflection X-ray fluorescence analysis** *TRAC-TRENDS IN ANALYTICAL CHEMISTRY*  
Meirer, F., Singh, A., Pepponi, G., Strelis, C., Homma, T., Pianetta, P.  
2010; 29 (6): 479-496
- **Nanoscale X-Ray Microscopic Imaging of Mammalian Mineralized Tissue** *MICROSCOPY AND MICROANALYSIS*  
Andrews, J. C., Almeida, E., van der Meulen, M. C., Alwood, J. S., Lee, C., Liu, Y., Chen, J., Meirer, F., Feser, M., Gelb, J., Rudati, J., Tkachuk, A., Yun, et al  
2010; 16 (3): 327-336
- **The effects of wet surface clean and in situ interlayer on In-0.52Al0.48As metal-oxide-semiconductor characteristics** *APPLIED PHYSICS LETTERS*  
Kobayashi, M., Thareja, G., Sun, Y., Goel, N., Garner, M., Tsai, W., Pianetta, P., Nishi, Y.  
2010; 96 (14)
- **Effects of Al doping and annealing on chemical states and band diagram of Y2O3/Si gate stacks studied by photoemission and x-ray absorption spectroscopy** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY A*  
Toyoda, S., Okabayashi, J., Komatsu, M., Oshima, M., Lee, D., Sun, S., Sun, Y., Pianetta, P. A., Kukuruznyak, D., Chikyow, T.  
2010; 28 (1): 16-19
- **Deactivation of submelt laser annealed arsenic ultrashallow junctions in silicon during subsequent thermal treatment** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY B*  
Giubertoni, D., Pepponi, G., Sahiner, M. A., Kelty, S. P., Gennaro, S., Bersani, M., Kah, M., Kirkby, K. J., Doherty, R., Foad, M. A., Meirer, F., Strelis, C., Woicik, et al

2010; 28 (1): C1B1-C1B5

- **Hard X-ray Full Field Nano-imaging of Bone and Nanowires at SSRL** *10th International Conference on Synchrotron Radiation Instrumentation*  
Andrews, J. C., Pianetta, P., Meirer, F., Chen, J., Almeida, E., van der Meulen, M. C., Alwood, J. S., Lee, C., Zhu, J., Cui, Y.  
AMER INST PHYSICS.2010: 79-82
- **Performance of a CsBr coated Nb photocathode at room temperature** *JOURNAL OF APPLIED PHYSICS*  
Maldonado, J. R., Pianetta, P., Dowell, D. H., Smedley, J., Kneisel, P.  
2010; 107 (1)
- **Radical oxidation of germanium for interface gate dielectric GeO<sub>2</sub> formation in metal-insulator-semiconductor gate stack** *JOURNAL OF APPLIED PHYSICS*  
Kobayashi, M., Thareja, G., Ishibashi, M., Sun, Y., Griffin, P., McVittie, J., Pianetta, P., Saraswat, K., Nishi, Y.  
2009; 106 (10)
- **Apparatus to measure electron reflection** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY B*  
Maldonado, J. R., Sun, Y., Tsai, R., Pease, F., Pianetta, P.  
2009; 27 (6): 2644-2647
- **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
- **The surface activation layer of GaAs negative electron affinity photocathode activated by Cs, Li, and NF<sub>3</sub>** *APPLIED PHYSICS LETTERS*  
Sun, Y., Kirby, R. E., Maruyama, T., Mulhollan, G. A., BIERMAN, J. C., Pianetta, P.  
2009; 95 (17)
- **Using X-ray Microscopy and Hg L-3 XAMES To Study Hg Binding in the Rhizosphere of Spartina Cordgrass** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*  
Patty, C., Barnett, B., Mooney, B., Kahn, A., Levy, S., Liu, Y., Pianetta, P., Andrews, J. C.  
2009; 43 (19): 7397-7402
- **Study on mechanism of crystallization in HfO<sub>2</sub> films on Si substrates by in-depth profile analysis using photoemission spectroscopy** *JOURNAL OF APPLIED PHYSICS*  
Toyoda, S., Takahashi, H., Kumigashira, H., Oshima, M., Lee, D., Sun, S., Liu, Z., Sun, Y., Pianetta, P. A., Oshiyama, I., Tai, K., Fukuda, S.  
2009; 106 (6)
- **Gold Removal from Germanium Nanowires** *LANGMUIR*  
Ratchford, J. B., Goldthorpe, I. A., Sun, Y., McIntyre, P. C., Pianetta, P. A., Chidsey, C. E.  
2009; 25 (16): 9473-9479
- **Hafnium oxide/germanium oxynitride gate stacks on germanium: Capacitance scaling and interface state density** *APPLIED PHYSICS LETTERS*  
Oshima, Y., Shandalov, M., Sun, Y., Pianetta, P., McIntyre, P. C.  
2009; 94 (18)
- **Electron sources utilizing thin CsBr coatings** *34th International Conference on Micro- and Nano-Engineering*  
Maldonado, J. R., Liu, Z., Dowell, D. H., Kirby, R. E., Sun, Y., Pianetta, P., Pease, F.  
ELSEVIER SCIENCE BV.2009: 529-31
- **Erase and Retention Improvements in Charge Trap Flash Through Engineered Charge Storage Layer** *IEEE ELECTRON DEVICE LETTERS*  
Goel, N., Gilmer, D. C., Park, H., Diaz, V., Sun, Y., Price, J., PARK, C., Pianetta, P., Kirsch, P. D., Jammy, R.  
2009; 30 (3): 216-218
- **High Quality GeO<sub>2</sub>/Ge Interface Formed by SPA Radical Oxidation and Uniaxial Stress Engineering for High Performance Ge NMOSFETs** *Symposium on VLSI Technology*  
Kobayashi, M., Irisawa, T., Kope, B. M., Sun, Y., Saraswat, K., Wong, H. P., Pianetta, P., Nishi, Y.  
JAPAN SOCIETY APPLIED PHYSICS.2009: 76-77
- **Full-field transmission x-ray microscopy for bio-imaging** *9th International Conference on X-Ray Microscopy*  
Andrews, J. C., Brennan, S., Liu, Y., Pianetta, P., Almeida, E. A., van der Meulen, M. C., Wu, Z., Mester, Z., Ouerdane, L., Gelb, J., Feser, M., Rudati, J., Tkachuk, et al

IOP PUBLISHING LTD.2009

- **Full-field transmission x-ray microscopy at SSRL** *9th International Conference on X-Ray Microscopy*  
Andrews, J. C., Brennan, S., Pianetta, P., Ishii, H., Gelb, J., Feser, M., Rudati, J., Tkachuk, A., Yun, W.  
IOP PUBLISHING LTD.2009
- **Origin of the Monochromatic Photoemission Peak in Diamondoid Monolayers** *NANO LETTERS*  
Clay, W. A., Liu, Z., Yang, W., Fabbri, J. D., Dahl, J. E., Carlson, R. M., Sun, Y., Schreiner, P. R., Fokin, A. A., Tkachenko, B. A., Fokina, N. A., Pianetta, P. A., Melosh, et al  
2009; 9 (1): 57-61
- **Experimental Demonstration of High Mobility Ge NMOS** *IEEE International Electron Devices Meeting (IEDM 2009)*  
Kuzum, D., Krishnamohan, T., Nainani, A., Sun, Y., Pianetta, P. A., Wong, H., Saraswat, K. C.  
IEEE.2009: 420-423
- **Correlation of local structure and electrical activation in arsenic ultrashallow junctions in silicon** *JOURNAL OF APPLIED PHYSICS*  
Giubertoni, D., Peponi, G., Gennaro, S., Bersani, M., Sahiner, M. A., Kelty, S. P., Doherty, R., Foad, M. A., Kah, M., Kirkby, K. J., Woicik, J. C., Pianetta, P.  
2008; 104 (10)
- **Arsenic-dominated chemistry in the acid cleaning of InGaAs and InAlAs surfaces** *APPLIED PHYSICS LETTERS*  
Sun, Y., Pianetta, P., Chen, P., Kobayashi, M., Nishi, Y., Goel, N., Garner, M., Tsai, W.  
2008; 93 (19)
- **Synchrotron radiation photoemission spectroscopic study of band offsets and interface self-cleaning by atomic layer deposited HfO<sub>2</sub> on In<sub>0.53</sub>Ga<sub>0.47</sub>As and In<sub>0.52</sub>Al<sub>0.48</sub>As** *APPLIED PHYSICS LETTERS*  
Kobayashi, M., Chen, P. T., Sun, Y., Goel, N., Majhi, P., GARNER, M., Tsai, W., Pianetta, P., Nishi, Y.  
2008; 93 (18)
- **Evaluation of electron energy spread in CsBr based photocathodes** *52nd International Conference on Electron, Ion and Photon Beam Technology and Nanofabrication*  
Maldonado, J. R., Sun, Y., Liu, Z., Liu, X., Tanimoto, S., Pianetta, P., Pease, F.  
A V S AMER INST PHYSICS.2008: 2085-90
- **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
- **The effectiveness of HCl and HF cleaning of Si<sub>0.85</sub>Ge<sub>0.15</sub> surface** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY A*  
Sun, Y., Liu, Z., Sun, S., Pianetta, P.  
2008; 26 (5): 1248-1250
- **The work function of submonolayer cesium-covered gold: A photoelectron spectroscopy study** *JOURNAL OF CHEMICAL PHYSICS*  
LaRue, J. L., White, J. D., Nahler, N. H., Liu, Z., Sun, Y., Pianetta, P. A., Auerbach, D. J., Wodtke, A. M.  
2008; 129 (2)
- **Photoemission study of Cs-NF<sub>3</sub> activated GaAs(100) negative electron affinity photocathodes** *APPLIED PHYSICS LETTERS*  
Liu, Z., Sun, Y., Peterson, S., Pianetta, P.  
2008; 92 (24)
- **Analytical methods for discriminating stardust in aerogel capture media** *56th Annual Conference on Applications of X-Ray Analysis*  
Brennan, S., Luening, K., Ignatyev, K., Pianetta, P., Ishii, H. A., Bradley, J. P.  
J C P D S-INT CENTRE DIFFRACTION DATA.2008: 81-86
- **Robust CsBr/Cu photocathodes for the linac coherent light source** *PHYSICAL REVIEW SPECIAL TOPICS-ACCELERATORS AND BEAMS*  
Maldonado, J. R., Liu, Z., Dowell, D. H., Kirby, R. E., Sun, Y., Pianetta, P., Pease, F.  
2008; 11 (6)
- **Ge-interface engineering with ozone oxidation for low interface-state density** *IEEE ELECTRON DEVICE LETTERS*  
Kuzum, D., Krishnamohan, T., Pethe, A. J., Okyay, A. K., Oshima, Y., Sun, Y., McVittie, J. P., Pianetta, P. A., McIntyre, P. C., Saraswat, K. C.  
2008; 29 (4): 328-330

- **HfO<sub>2</sub> gate dielectric on (NH<sub>4</sub>)<sub>2</sub>S passivated (100) GaAs grown by atomic layer deposition** *JOURNAL OF APPLIED PHYSICS*  
Chen, P. T., Sun, Y., Kim, E., McIntyre, P. C., Tsai, W., GARNER, M., Pianetta, P., Nishi, Y., Chui, C. O.  
2008; 103 (3)
- **Recovering the elemental composition of comet Wild 2 dust in five Stardust impact tracks and terminal particles in aerogel** *METEORITICS & PLANETARY SCIENCE*  
Ishii, H. A., Brennan, S., Bradley, J. P., Luening, K., Ignatyev, K., Pianetta, P.  
2008; 43 (1-2): 215-231
- **Addressing The Gate Stack Challenge For High Mobility InxGa1-xAs Channels For NFETs** *IEEE International Electron Devices Meeting*  
Goel, N., Heh, D., Koveshnikov, S., Ok, I., Oktyabrsky, S., Tokranov, V., KAMBHAMPATI, R., Yakimov, M., Sun, Y., Pianetta, P., Gaspe, C. K., Santos, M. B., Lee, et al  
IEEE.2008: 363-366
- **Ge Interface Passivation Techniques and Their Thermal Stability** *3rd International SiGe, Ge and Related Compounds Symposium*  
Kuzum, D., Krishnamohan, T., Pethe, A., Oshima, Y., Sun, Y., McVittie, J., Pianetta, P. A., McIntyre, P. C., Saraswat, K. C.  
ELECTROCHEMICAL SOCIETY INC.2008: 1025-29
- **Chemical Bonding, Interfaces, and Defects in Hafnium Oxide/Germanium Oxynitride Gate Stacks on Ge(100)** *JOURNAL OF THE ELECTROCHEMICAL SOCIETY*  
Oshima, Y., Sun, Y., Kuzum, D., Sugawara, T., Saraswat, K. C., Pianetta, P., McIntyre, P. C.  
2008; 155 (12): G304-G309
- **Angular dependence of the photoelectron energy distribution of InP(100) and GaAs(100) negative electron affinity photocathodes** *APPLIED PHYSICS LETTERS*  
Lee, D., Sun, Y., Liu, Z., Sun, S., Pianetta, P.  
2007; 91 (19)
- **Influence of Taoism on the invention of the purple pigment used on the Qin terracotta warriors** *JOURNAL OF ARCHAEOLOGICAL SCIENCE*  
Liu, Z., Mehta, A., Tamura, N., Pickard, D., Rong, B., Zhou, T., Pianetta, P.  
2007; 34 (11): 1878-1883
- **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
- **The distribution of oxide species in the Cs/O activation layer on InP(100) negative electron affinity photocathodes** *JOURNAL OF APPLIED PHYSICS*  
Lee, D., Sun, Y., Liu, Z., Sun, S., Peterson, S., Pianetta, P.  
2007; 102 (7)
- **Formation of cesium peroxide and cesium superoxide on InP photocathode activated by cesium and oxygen** *JOURNAL OF APPLIED PHYSICS*  
Sun, Y., Liu, Z., Pianetta, P., Lee, D.  
2007; 102 (7)
- **Band offsets between amorphous LaAlO<sub>3</sub> and In<sub>0.53</sub>Ga<sub>0.47</sub>As** *APPLIED PHYSICS LETTERS*  
Goel, N., Tsai, W., Garner, C. M., Sun, Y., Pianetta, P., Warusawithana, M., Schlom, D. G., Wen, H., Gaspe, C., Keay, J. C., Santos, M. B., Goncharova, L. V., Garfunkel, et al  
2007; 91 (11)
- **Surface dipole formation and lowering of the Work function by Cs adsorption on InP(100) surface** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY A*  
Sun, Y., Liu, Z., Pianetta, P.  
2007; 25 (5): 1351-1356
- **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
- **Dynamics modelling of biolistic gene guns** *PHYSICS IN MEDICINE AND BIOLOGY*  
Zhang, M., Tao, W., Pianetta, P. A.  
2007; 52 (5): 1485-1493
- **A high resolution full field transmission X-ray microscope at SSRL** *9th International Conference on Synchrotron Radiation Instrumentation (SRI 2006)*  
Luening, K., Pianetta, P., Yun, W., Almeida, E., van der Meulen, M.  
AMER INST PHYSICS.2007: 1333–1336
- **Micro scanning XRF, XANES and XRD studies of the decorated surface of Roman Terra Sigillata ceramics**  
Mirguet, C., Sciau, P., Goudeau, P., Metha, A., Pianetta, P., Liu, Z., Tamura, N.  
INT UNION CRYSTALLOGRAPHY.2007: S107
- **First X-ray fluorescence MicroCT results from micrometeorites at SSRL** *9th International Conference on Synchrotron Radiation Instrumentation (SRI 2006)*  
Ignatyev, K., Huwig, K., Harvey, R., Ishii, H., Bradley, J., Luening, K., Brennan, S., Pianetta, P.  
AMER INST PHYSICS.2007: 1337–1340
- **Interface-engineered Ge (100) and (111), N- and P-FETs with high mobility** *IEEE International Electron Devices Meeting*  
Kuzum, D., Pethe, A. J., Krishnamohan, T., Oshima, Y., Sun, Y., McVittie, J. P., Pianetta, P. A., McIntyre, P. C., Saraswat, K. C.  
IEEE.2007: 723–726
- **Elemental compositions of comet 81P/Wild 2 samples collected by Stardust** *SCIENCE*  
Flynn, G. J., Bleuet, P., Borg, J., Bradley, J. P., Brenker, F. E., Brennan, S., Bridges, J., Brownlee, D. E., Bullock, E. S., Burghammer, M., Clark, B. C., Dai, Z. R., Daghlian, et al  
2006; 314 (5806): 1731-1735
- **Comet 81P/Wild 2 under a microscope.** *Science*  
Brownlee, D., Tsou, P., Aléon, J., Alexander, C. M., Araki, T., Bajt, S., Baratta, G. A., Bastien, R., Bland, P., Bleuet, P., Borg, J., Bradley, J. P., Brearley, et al  
2006; 314 (5806): 1711-1716
- **Research article - Comet 81P/Wild 2 under a microscope** *SCIENCE*  
Brownlee, D., Tsou, P., Aleon, J., Alexander, C. M., Araki, T., Bajt, S., Baratta, G. A., Bastien, R., Bland, P., Bleuet, P., Borg, J., Bradley, J. P., Brearley, et al  
2006; 314 (5806): 1711-1716
- **Roles of oxygen and water vapor in the oxidation of halogen terminated Ge(111) surfaces** *APPLIED PHYSICS LETTERS*  
Sun, S., Sun, Y., Liu, Z., Lee, D., Pianetta, P.  
2006; 89 (23)
- **Photoelectron emission studies in CsBr at 257 nm** *50th International Conference on Electron, Ion, and Photon Beam Technology and Nanofabrication*  
Maldonado, J. R., Liu, Z., Sun, Y., Pianetta, P. A., Pease, F. W.  
A V S AMER INST PHYSICS.2006: 2886–91
- **Chemical states and electrical properties of a high-k metal oxide/silicon interface with oxygen-gettering titanium-metal-overlayer** *APPLIED PHYSICS LETTERS*  
Seo, K., Lee, D., Pianetta, P., Kim, H., Saraswat, K. C., McIntyre, P. C.  
2006; 89 (14)
- **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)
- **Surface termination and roughness of Ge(100) cleaned by HF and HCl solutions** *APPLIED PHYSICS LETTERS*  
Sun, S. Y., Sun, Y., Liu, Z., Lee, D. I., Peterson, S., Pianetta, P.  
2006; 88 (2)
- **XRF microCT study of space objects at SSRL** *5th Conference on Developments in X-Ray Tomography*

Ignatyev, K., Huwig, K., Harvey, R., Ishii, H., Bradley, J., Luening, K., Brennan, S., Pianetta, P.  
SPIE-INT SOC OPTICAL ENGINEERING.2006

- **Dynamics modeling and analysis of gene guns for gene therapy** *IEEE International Conference on Robotics and Automation (ICRA)*  
Zhang, M., Tao, W., Pianetta, P. A.  
IEEE.2006: 1774–1779
- **Photoemission studies of passivation of germanium nanowires** *APPLIED PHYSICS LETTERS*  
Adhikari, H., McIntyre, P. C., Sun, S. Y., Pianetta, P., Chidsey, C. E.  
2005; 87 (26)
- **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
- **Nitrogen doping and thermal stability in HfSiOxNy studied by photoemission and x-ray absorption spectroscopy** *APPLIED PHYSICS LETTERS*  
Toyoda, S., Okabayashi, J., Takahashi, H., Oshima, M., Lee, D. I., Sun, S., Sun, S., Pianetta, P. A., Ando, T., Fukuda, S.  
2005; 87 (18)
- **Mercury transformations in chemical agent simulant as characterized by X-ray absorption fine spectroscopy** *TALANTA*  
Skubal, L. R., Biedron, S. G., Newville, M., Schneider, J. F., Milton, S. V., Pianetta, P., O'Neill, H. J.  
2005; 67 (4): 730-735
- **Chemical states and electronic structure of a HfO2/Ge(001) interface** *APPLIED PHYSICS LETTERS*  
Seo, K. I., McIntyre, P. C., Sun, S., Lee, D. I., Pianetta, P., Saraswat, K. C.  
2005; 87 (4)
- **Optimized cleaning method for producing device quality InP(100) surfaces** *JOURNAL OF APPLIED PHYSICS*  
Sun, Y., Liu, Z., Machuca, F., Pianetta, P., SPICER, W. E.  
2005; 97 (12)
- **Zirconia-germanium interface photoemission spectroscopy using synchrotron radiation** *JOURNAL OF APPLIED PHYSICS*  
Chui, C. O., Lee, D. I., Singh, A. A., Pianetta, P. A., Saraswat, K. C.  
2005; 97 (11)
- **William Edward Spicer - Obituary** *PHYSICS TODAY*  
LINDAU, I., Pianetta, P.  
2005; 58 (5): 86-87
- **Effects of post-deposition annealing on the material characteristics of ultrathin HfO2 films on silicon** *JOURNAL OF APPLIED PHYSICS*  
Puthenkovilakam, R., Lin, Y. S., Choi, J., Lu, J., Blom, H. O., Pianetta, P., Devine, D., Sendler, M., Chang, J. P.  
2005; 97 (2)
- **Near-edge absorption spectroscopy of interplanetary dust particles** *PHYSICA SCRIPTA*  
Brennan, S., Luening, K., Pianetta, P., Bradley, J., Graham, G., Westphal, A., Snead, C., Dominguez, G.  
2005; T115: 261-263
- **Integrating molecular dynamics for DNA bio-chip fabrication and hybridization automation** *IEEE/ASME International Conference on Advanced Intelligent Mechatronics*  
Zhang, M. J., Pianetta, P. A., Tarn, T. J.  
IEEE.2005: 25–30
- **X-ray absorption fine-structure determination of interfacial polarization in SrTiO3 thin films grown on Si(001)** *PHYSICA SCRIPTA*  
Woicik, J. C., Aguirre-Tostada, F. S., Herrera-Gomez, A., Droopad, R., Yu, Z., Schlom, D., Karapetrova, E., Zschack, P., Pianetta, P.  
2005; T115: 620-622
- **Nucleation and growth of copper nanoparticles on silicon surfaces** *PHYSICA SCRIPTA*  
Singh, A., Luening, K., Brennan, S., Homma, T., Kubo, N., Pianetta, P.  
2005; T115: 714-716



- **Room temperature photo-oxidation of NH<sub>4</sub>F-prepared H-Si(111)(1x1) and H-x-Si(100)** *JOURNAL OF APPLIED PHYSICS*  
Morse, K. A., Pianetta, P.  
2004; 96 (11): 6851-6858
- **Cs halide photocathode for multi-electron-beam pattern generator** *48th International Conference on Electron, Ion and Photon Beam Technology and Nanofabrication*  
Maldonado, J. R., Coyle, S. T., Shamoun, B., Yu, M., Gesley, M., Pianetta, P.  
A V S AMER INST PHYSICS.2004: 3025-31
- **Elastic anomaly for SrTiO<sub>3</sub> thin films grown on Si(001)** *PHYSICAL REVIEW B*  
Aguirre-Tostado, F. S., Herrera-Gomez, A., Woicik, J. C., Droopad, R., Yu, Z., Schlom, D. G., Zschack, P., Karapetrova, E., Pianetta, P., Hellberg, C. S.  
2004; 70 (20)
- **Nondestructive dose determination and depth profiling of arsenic ultrashallow junctions with total reflection X-ray fluorescence analysis compared to dynamic secondary ion mass spectrometry** *10th Symposium on Total Reflection X-Ray Fluorescence Analysis/39th Discussion Meeting on Chemical Analysis*  
Pepponi, G., Strelti, C., Wobrauschek, P., Zoeger, N., Luening, K., Pianetta, P., Giubertoni, D., Barozzi, M., Bersani, M.  
PERGAMON-ELSEVIER SCIENCE LTD.2004: 1243-49
- **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
- **Aerogel keystones: Extraction of complete hypervelocity impact events from aerogel collectors** *METEORITICS & PLANETARY SCIENCE*  
Westphal, A. J., Snead, C., Butterworth, A., Graham, G. A., Bradley, J. P., Bajt, S., Grant, P. G., Bench, G., Brennan, S., Pianetta, P.  
2004; 39 (8): 1375-1386
- **Displacive phase transition in SrTiO<sub>3</sub> thin films grown on Si(001)** *50th International Symposium of the American-Vacuum-Society*  
Aguirre-Tostado, F. S., Herrera-Gomez, A., Woicik, J. C., Droopad, R., Yu, Z., Schlom, D. G., Karapetrova, J., Zschack, P., Pianetta, P.  
A V S AMER INST PHYSICS.2004: 1356-60
- **Quantitative evaluation of iron at the silicon surface after wet cleaning treatments** *JOURNAL OF THE ELECTROCHEMICAL SOCIETY*  
Caputo, D., Bacciaglia, P., Carpanese, C., Polignano, M. L., Lazzeri, P., Bersani, M., VANZETTI, L., Pianetta, P., Moro, L.  
2004; 151 (5): G289-G296
- **Surface trace element characterization of synthetic single crystal Al<sub>2</sub>O<sub>3</sub> at the SSRL** *8th International Conference on Synchrotron Radiation Instrumentation (SRI 2003)*  
McGuire, S. C., Baham, M. J., Preddie, E., Brennan, S., Luening, K., Pianetta, P., Singh, A.  
AMER INST PHYSICS.2004: 1182-1185
- **The nucleation and growth of Cu nanoclusters on silicon surfaces** *8th International Conference on Synchrotron Radiation Instrumentation (SRI 2003)*  
Singh, A., Luening, K., Brennan, S., Homma, T., Kubo, N., Pianetta, P.  
AMER INST PHYSICS.2004: 1086-1089
- **Analysis of low Z elements on Si wafer surfaces with synchrotron radiation induced total reflection X-ray fluorescence at SSRL, beamline 3-3: Comparison of droplets with spin coated wafers** *9th Conference on Total Reflection X-Ray Fluorescence Analysis and Related Methods*  
Strelti, C., Pepponi, G., Wobrauschek, P., Zoeger, N., Pianetta, P., Baur, K., Pahlke, S., Fabry, L., Mantler, C., Kanngiesser, B., Malzer, W.  
PERGAMON-ELSEVIER SCIENCE LTD.2003: 2105-12
- **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
- **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
- **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

- **Interfacial properties of ZrO<sub>2</sub> on silicon** *JOURNAL OF APPLIED PHYSICS*  
Lin, Y. S., Puthenkovilakam, R., CHANG, J. P., Bouldin, C., Levin, I., Nguyen, N. V., Ehrstein, J., Sun, Y., Pianetta, P., Conard, T., Vandervorst, W., Venturo, V., Selbrede, et al  
2003; 93 (10): 5945-5952
- **Photoelectron spectroscopy to probe the mechanism of electron transfer through oligo(phenylene vinylene) bridges** *JOURNAL OF PHYSICAL CHEMISTRY B*  
Sikes, H. D., Sun, Y., Dudek, S. P., Chidsey, C. E., Pianetta, P.  
2003; 107 (5): 1170-1173
- **Preparation of clean InP(100) surfaces studied by synchrotron radiation photoemission** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY A*  
Sun, Y., Liu, Z., Machuca, F., Pianetta, P., SPICER, W. E.  
2003; 21 (1): 219-225
- **Color filtering metallization for optoelectronic 100nm CMOS circuits** *IEEE International Electron Devices Meeting*  
Schmidt, D. J., Pianetta, P. A.  
IEEE.2003: 389–392
- **Fabrication and characterization of ultra-small polycrystalline silicon islands for advanced multi-level silicon-on-insulator applications** *7th International Conference on Polycrystalline Semiconductors*  
Schmidt, D., Pianetta, P.  
TRANS TECH PUBLICATIONS LTD.2003: 441–446
- **Detection and characterization of trace element contamination on silicon wafers** *19th International Conference on X-Ray and Inner-Shell Processes*  
Singh, A., Baur, K., Brennan, S., Homma, T., Kubo, N., Pianetta, P.  
AMER INST PHYSICS.2003: 472–480
- **Quantitative evaluation of iron at the silicon surface after wet cleaning treatments** *Symposium on Analytical Techniques for Semiconductor Materials and Process Characterization IV (ALTECH 2003) held at the 203rd Meeting of the Electrochemical-Society*  
Caputo, D., Bacciaglia, P., Carpanese, C., Polignano, M. L., Lazzeri, P., Bersani, M., VANZETTI, L., Pianetta, P., Moro, L.  
ELECTROCHEMICAL SOCIETY INC.2003: 493–504
- **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
- **Looking at trace impurities on silicon wafers with synchrotron radiation** *ANALYTICAL CHEMISTRY*  
Baur, K., Brennan, S., Pianetta, P., Opila, R.  
2002; 74 (23): 608A-616A
- **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
- **Structural studies of ultrathin zirconia dielectrics** *PHILOSOPHICAL MAGAZINE LETTERS*  
Ramanathan, S., McIntyre, P. C., Luning, J., Pianetta, P., Muller, D. A.  
2002; 82 (9): 519-528
- **Simple method for cleaning gallium nitride (0001)** *49th International Symposium of the American-Vacuum-Society*  
Machuca, F., Liu, Z., Sun, Y., Pianetta, P., SPICER, W. E., Pease, R. F.  
A V S AMER INST PHYSICS.2002: 1784–86
- **Quadrupole effects in core and valence photoelectron emission from crystalline germanium measured via a spatially modulated x-ray interference field** *PHYSICAL REVIEW B*  
Nelson, E. J., Woicik, J. C., Pianetta, P., Vartanyants, I. A., Cooper, J. W.  
2002; 65 (16)
- **Formation of (functionalized) monolayers and simultaneous surface patterning by scribing silicon in the presence of alkyl halides** *CHEMISTRY OF MATERIALS*

Niederhauser, T. L., Lua, Y. Y., Sun, Y., Jiang, G. L., Strossman, G. S., Pianetta, P., Linford, M. R.  
2002; 14 (1): 27-?

- **A study of fabrication and characterization of ultra-small polycrystalline silicon islands for advanced display and microsensor applications** *Symposium on Amorphous and Heterogeneous Silicon-Based Films held at the 2002 MRS Spring Meeting*  
Schmidt, D., Shi, F., Pianetta, P.  
MATERIALS RESEARCH SOCIETY.2002: 707-712
- **X-ray Absorption spectroscopy on copper trace impurities on silicon wafers** *Symposium on Silicon Materials held at the 2002 MRS Spring Meeting*  
Singh, A., Baur, K., Brennan, S., Homma, T., Kubo, N., Pianetta, P.  
MATERIALS RESEARCH SOCIETY.2002: 23-28
- **Photoemission from the Sr/Si(001) interface** *JOURNAL OF APPLIED PHYSICS*  
Herrera-Gomez, A., Aguirre-Tostado, F. S., Sun, Y., Pianetta, P., Yu, Z., Marshall, D., Droopad, R., SPICER, W. E.  
2001; 90 (12): 6070-6072
- **Laboratory and synchrotron radiation total-reflection X-ray fluorescence: new perspectives in detection limits and data analysis** *8th Conference on Total Reflection X-Ray Fluorescence Analysis and Related Methods*  
Baur, K., Brennan, S., Burrow, B., Werho, D., Pianetta, P.  
PERGAMON-ELSEVIER SCIENCE LTD.2001: 2049-56
- **Synchrotron radiation induced total reflection X-ray fluorescence of low Z elements on Si wafer surfaces at SSRL - comparison of excitation geometries and conditions** *8th Conference on Total Reflection X-Ray Fluorescence Analysis and Related Methods*  
Streli, C., Wobrauschek, P., Kregsamer, P., Pepponi, G., Pianetta, P., Pahlke, S., Fabry, L.  
PERGAMON-ELSEVIER SCIENCE LTD.2001: 2085-94
- **X-ray standing-wave investigations of valence electronic structure** *PHYSICAL REVIEW B*  
Woicik, J. C., Nelson, E. J., Heskett, D., Warner, J., Berman, L. E., Karlin, B. A., Vartanyants, I. A., Hasan, M. Z., Kendelewicz, T., Shen, Z. X., Pianetta, P.  
2001; 64 (12)
- **In situ x-ray photoelectron spectroscopy for thin film synthesis monitoring** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY A*  
Kelly, M. A., Shek, M. L., Pianetta, P., Gur, T. M., Beasley, M. R.  
2001; 19 (5): 2127-2133
- **Recent advances and perspectives in synchrotron radiation TXRF** *7th International Conference on Synchrotron Radiation Instrumentation (SRI 2000)*  
Baur, K., Brennan, S., Werho, D., Moro, L., Pianetta, P.  
ELSEVIER SCIENCE BV.2001: 1198-1201
- **Partial density of occupied valence states by x-ray standing waves and high-resolution photoelectron spectroscopy** *PHYSICAL REVIEW B*  
Woicik, J. C., Nelson, E. J., Kendelewicz, T., Pianetta, P., Jain, M., Kronik, L., Chelikowsky, J. R.  
2001; 63 (4)
- **Effect of silicon surface termination on copper deposition in deionized water** *JOURNAL OF THE ELECTROCHEMICAL SOCIETY*  
Lim, S. W., Mo, R. T., Pianetta, P. A., Chidsey, C. E.  
2001; 148 (1): C16-C20
- **Investigation of trace metals analyses of dry residue on silicon wafer surfaces by TXRF and ICP-MS** *5th International Symposium on Ultra Clean Processing of Silicon Surfaces (UCPSS 2000)*  
Wang, J., Balaz, M., Pianetta, P., Baur, K., Brennan, S.  
SCITEC PUBLICATIONS LTD.2001: 75-79
- **Characterization of profiling techniques for ultralow energy arsenic implants** *ELECTROCHEMICAL AND SOLID STATE LETTERS*  
Kasnavi, R., Sun, Y., Mount, G., Pianetta, P., Griffin, P. B., Plummer, J. D.  
2001; 4 (1): G1-G3
- **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

- **Role of delocalized nitrogen in determining the local atomic arrangement and mechanical properties of amorphous carbon nitride thin films** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY A*  
Holloway, B. C., Kraft, O., Shuh, D. K., Nix, W. D., Kelly, M., Pianetta, P., Hagstrom, S.  
2000; 18 (6): 2964-2971
- **Aluminum impurities in silicon: Investigation of x-ray Raman scattering in total reflection x-ray fluorescence spectroscopy** *JOURNAL OF APPLIED PHYSICS*  
Baur, K., Kerner, J., Brennan, S., Singh, A., Pianetta, P.  
2000; 88 (8): 4642-4647
- **Application of synchrotron radiation to TXRF analysis of metal contamination on silicon wafer surfaces** *11th International Conference on Thin Films (ICTF-11)*  
Pianetta, P., Baur, K., Singh, A., Brennan, S., Kerner, J., Werho, D., Wang, J.  
ELSEVIER SCIENCE SA.2000: 222-26
- **Geometrical structure of the 1/2-ML (2X1) and 1/3-ML (2X3) Ba/Si(001) interfaces** *PHYSICAL REVIEW B*  
Herrera-Gomez, A., Pianetta, P., Marshall, D., Nelson, E., SPICER, W. E.  
2000; 61 (19): 12988-12991
- **Characterization of arsenic dose loss at the Si/SiO<sub>2</sub> interface** *JOURNAL OF APPLIED PHYSICS*  
Kasnavi, R., Sun, Y., Mo, R., Pianetta, P., Griffin, P. B., Plummer, J. D.  
2000; 87 (5): 2255-2260
- **Direct measurement of valence-charge asymmetry by x-ray standing waves** *PHYSICAL REVIEW LETTERS*  
Woicik, J. C., Nelson, E. J., Pianetta, P.  
2000; 84 (4): 773-776
- **Investigation of Na impurities on Si wafer surfaces using TXRF** *11th US National Conference on Synchrotron Radiation Instrumentation*  
Baur, K., Singh, A., Wang, J., Kerner, J., Pianetta, P.  
AMER INST PHYSICS.2000: 161-166
- **The effect of dilute cleaning and rinsing chemistries on transition metal removal and si surface microroughness** *6th International Symposium on Cleaning Technology in Semiconductor Device Manufacturing*  
CHANG, J. P., Sapjeta, J., Rosamilia, J. M., Boone, T., Eng, J., Opila, R. L., Brennan, S., Wiemer, C., Pianetta, P.  
ELECTROCHEMICAL SOCIETY INC.2000: 17-24
- **Ultraviolet light stimulated halogen chemistry on cleaning silicon surfaces** *6th International Symposium on Cleaning Technology in Semiconductor Device Manufacturing*  
CHANG, J. P., Eng, J., Sapjeta, J., Opila, R. L., Cox, P., Pianetta, P.  
ELECTROCHEMICAL SOCIETY INC.2000: 129-36
- **Atomic-scale mechanistic study of iodine/alcohol passivated Si(100)** *6th International Symposium on Cleaning Technology in Semiconductor Device Manufacturing*  
Mo, R. T., Burr, T. A., Merklin, G. T., Machuca, F., Pianetta, P. A., Kimerling, L. C., Chiarello, R. P., Chidsey, C. E.  
ELECTROCHEMICAL SOCIETY INC.2000: 545-52
- **Low Z total reflection X-ray fluorescence analysis - challenges and answers** *7th Conference on Total Reflection X-Ray Fluorescence Analysis and Related Methods (TXRF 98)*  
Streli, C., Kregsamer, P., Wobrauschek, P., Gatterbauer, H., Pianetta, P., Pahlke, S., Fabry, L., Palmetshofer, L., Schmeling, M.  
PERGAMON-ELSEVIER SCIENCE LTD.1999: 1433-41
- **Synchrotron radiation-excited glancing incidence XRF for depth profile and thin-film analysis of light elements** *European Conference on Energy Dispersive X-Ray Spectrometry 1998 (EDXRS-98)*  
Kregsamer, P., Streli, C., Wobrauschek, P., Gatterbauer, H., Pianetta, P., Palmetshofer, L., Brehm, L. L.  
JOHN WILEY & SONS LTD.1999: 292-96
- **Can studies of the II-VIs profit from the use of synchrotron radiation and the DOE financial support thereof?** *17th US Workshop on the Physics and Chemistry of II-VI Materials*  
SPICER, W. E., Herrera-Gomez, A., Pianetta, P.  
SPRINGER.1999: 804-9

- **Interpretation of x-ray photoelectron spectra of elastic amorphous carbon nitride thin films** *APPLIED PHYSICS LETTERS*  
Holloway, B. C., Kraft, O., Shuh, D. K., Kelly, M. A., Nix, W. D., Pianetta, P., Hagstrom, S.  
1999; 74 (22): 3290-3292
- **Bonding modifications in carbon nitride films induced by thermal annealing: An x-ray absorption near edge study** *APPLIED PHYSICS LETTERS*  
Jimenez, I., Tong, W. M., Shuh, D. K., Holloway, B. C., Kelly, M. A., Pianetta, P., Terminello, L. J., Himpsel, F. J.  
1999; 74 (18): 2620-2622
- **Direct measurement of valence charge asymmetry in GaAs using X-ray standing waves** *10th International Conference on XAFS (XAFS X)*  
Nelson, E., Woicik, J., Pianetta, P.  
WILEY-BLACKWELL.1999: 341-343
- **Alkyl-terminated Si(111) surfaces: A high-resolution, core level photoelectron spectroscopy study** *JOURNAL OF APPLIED PHYSICS*  
Terry, J., Linford, M. R., Wigren, C., Cao, R. Y., Pianetta, P., Chidsey, C. E.  
1999; 85 (1): 213-221
- **Reaction of water with vacuum-cleaved CaO(100) surfaces: an X-ray photoemission spectroscopy study** *SURFACE SCIENCE*  
Liu, P., Kendelewicz, T., Brown, G. E., Parks, G. A., Pianetta, P.  
1998; 416 (1-2): 326-340
- **Characterization of arsenic dose loss at the Si/SiO<sub>2</sub> interface using high resolution X-ray Photoelectron Spectrometry** *International Electron Devices Meeting (IEDM)*  
Kasnavi, R., Pianetta, P., Sun, Y., Mo, R. N., Griffin, P. B., Plummer, J. D.  
IEEE.1998: 721-724
- **Update on synchrotron radiation TXRF: New results** *Symposium on Applications of Synchrotron Radiation Techniques to Materials Science IV*  
Brennan, S., Pianetta, P., Ghosh, S., Takaura, N., Wiemer, C., Fischer-Colbrie, A., Laderman, S., Shimazaki, A., Waldhauer, A., Zaitz, M. A.  
MATERIALS RESEARCH SOCIETY.1998: 245-249
- **Reactivity of the H-Si (111) surface** *1st International Conference on Synchrotron Radiation in Materials Science (ICSRMS 96)*  
Terry, J., Mo, R., Wigren, C., Cao, R. Y., Mount, G., Pianetta, P., Linford, M. R., Chidsey, C. E.  
ELSEVIER SCIENCE BV.1997: 94-101
- **Early work with synchrotron radiation at Stanford** *JOURNAL OF SYNCHROTRON RADIATION*  
Doniach, S., Hodgson, K., LINDAU, I., Pianetta, P., Winick, H.  
1997; 4: 380-395
- **Determination of the bonding of alkyl monolayers to the Si(111) surface using chemical-shift, scanned-energy photoelectron diffraction** *APPLIED PHYSICS LETTERS*  
Terry, J., Linford, M. R., Wigren, C., Cao, R. Y., Pianetta, P., Chidsey, C. E.  
1997; 71 (8): 1056-1058
- **Total reflection X-ray fluorescence analysis of light elements with synchrotron radiation and special X-ray tubes** *6th Conference on Total Reflection X-Ray Fluorescence Analysis and Related Methods (TXRF 96)*  
Streli, C., Wobrauschek, P., Bauer, V., Kregsamer, P., Gorgl, R., Pianetta, P., Ryon, R., Pahlke, S., Fabry, L.  
PERGAMON-ELSEVIER SCIENCE LTD.1997: 861-72
- **New surface phases for potassium adatoms on cleaved Si(111)** *SURFACE SCIENCE*  
Nelson, E. J., Kendelewicz, T., Liu, P., Pianetta, P.  
1997; 380 (2-3): 365-376
- **Microscopic chemical state identification of a silicon-carbide fiber by soft x-ray photoabsorption spectroscopy** *APPLIED PHYSICS LETTERS*  
Ma, Q., Rosenberg, R. A., Kim, C. Y., Grepstad, J., Pianetta, P.  
1997; 70 (18): 2389-2391
- **Comparative magnetic-field imaging, electric-field imaging, and scanning Auger microscopy study of metal-matrix composites** *JOURNAL OF ELECTRON SPECTROSCOPY AND RELATED PHENOMENA*  
Ma, Q., Rosenberg, R. A., Kim, C. Y., Grepstad, J., Pianetta, P., Droubay, T., Dunham, D., Tonner, B.  
1997; 84 (1-3): 99-107

- **State-of-the-art evaluation of ultra-clean ULSI processes** *Symposium on Science and Technology of Semiconductor Surface Preparation, at the 1997 MRS Spring Meeting*  
FISCHERCOLBRIE, A., LADERMAN, S. S., Brennan, S., Ghosh, S., Takaura, N., Pianetta, P., Shimazaki, A., Waldhauer, A., Wherry, D., Barkan, S.  
MATERIALS RESEARCH SOCIETY.1997: 403-407
- **Synthesis and characterization of amorphous carbon nitride films** *23rd International Conference on Metallurgical Coatings and Thin Films*  
Holloway, B. C., Shuh, D. K., Kelly, M. A., Tong, W., Carlisle, J. A., Jimenez, I., Sutherland, D. G., Terminello, L. J., Pianetta, P., Hagstrom, S.  
ELSEVIER SCIENCE SA.1996: 94-98
- **Near-edge x-ray absorption of carbon materials for determining bond hybridization In mixed sp<sup>2</sup>/sp<sup>3</sup> bonded materials** *APPLIED PHYSICS LETTERS*  
Coffman, F. L., Cao, R., Pianetta, P. A., Kapoor, S., Kelly, M., Terminello, L. J.  
1996; 69 (4): 568-570
- **Interaction of hydrogen ions with oxidized GaAs(100) and AlAs(100) surfaces** *23rd Annual Conference on the Physics and Chemistry of Semiconductor Interfaces*  
Chang, Y. L., Cao, R., SPICER, W. E., Pianetta, P., Shi, S., Hu, E., Merz, J.  
A V S AMER INST PHYSICS.1996: 2914-17
- **Surface-sensitive x-ray standing-wave study of Si(111)root 3x root 3-Ag** *PHYSICAL REVIEW B*  
Woicik, J. C., Kendelewicz, T., YOSHIKAWA, S. A., Miyano, K. E., Herman, G. S., COWAN, P. L., Pianetta, P., SPICER, W. E.  
1996; 53 (23): 15425-15428
- **Evidence for** *Physical review. B, Condensed matter*  
Filipponi, Di Cicco A, Pianetta, Kendelewicz  
1996; 53 (23): 15571-15576
- **Evidence for [1s2p]3p shake-up channels in compounds and oxides of third-period elements** *PHYSICAL REVIEW B*  
Filipponi, A., DICICCO, A., Pianetta, P., Kendelewicz, T.  
1996; 53 (23): 15571-15576
- **Photoemission study of Na and Cs adsorption on MgO(100)1 x 1** *15th European Conference on Surface Science*  
Kendelewicz, T., Liu, P., Brown, G. E., Nelson, E. J., Pianetta, P.  
ELSEVIER SCIENCE BV.1996: 451-456
- **Photoelectron emission from the cesiated diamond (110) surface** *Symposium on Diamond for Electronic Applications*  
Fox, C. A., Kelly, M. A., HAGSTROM, S. B., Cao, R., VERGARA, G., Pianetta, P., Pan, L. S., Hsu, W. L.  
MATERIALS RESEARCH SOC.1996: 449-454
- **Silicon wafer trace impurity analysis using synchrotron radiation** *International Workshop on Semiconductor Characterization - Present Status and Future Needs*  
LADERMAN, S. S., FISCHERCOLBRIE, A., Shimazaki, A., Miyazaki, K., Brennan, S., Takaura, N., Pianetta, P., Kortright, J. B.  
AIP PRESS.1996: 273-277
- **THE EFFECT OF RAPID THERMAL N<sub>2</sub>O NITRIDATION ON THE OXIDE/SI(100) INTERFACE STRUCTURE** *APPLIED PHYSICS LETTERS*  
LU, Z. H., Tay, S. P., Cao, R., Pianetta, P.  
1995; 67 (19): 2836-2838
- **HIGH-SENSITIVITY TOTAL-REFLECTION X-RAY-FLUORESCENCE SPECTROSCOPY OF SILICON-WAFERS USING SYNCHROTRON-RADIATION** *5th Workshop on Total Reflection X-Ray Fluorescence Spectroscopy and Related Spectroscopical Methods*  
LADERMAN, S. S., FISCHERCOLBRIE, A., Shimazaki, A., Miyazaki, K., Brennan, S., Takakura, N., Pianetta, P., Kortright, J. B.  
JAPAN SOC ANALYTICAL CHEM.1995: 515-18
- **CONSTRUCTION OF A NEW IMAGING BANDPASS ANALYZER FOR A MAGNETIC PROJECTION PHOTOELECTRON MICROSCOPE** *REVIEW OF SCIENTIFIC INSTRUMENTS*  
Kim, C., Pianetta, P., Kelly, M. A.  
1995; 66 (5): 3159-3167
- **TOTAL-REFLECTION X-RAY-FLUORESCENCE SPECTROSCOPY USING SYNCHROTRON-RADIATION FOR WAFER SURFACE TRACE IMPURITY ANALYSIS** *5th International Conference on Synchrotron Radiation Instrumentation*  
Pianetta, P., Takaura, N., Brennan, S., Tompkins, W., LADERMAN, S. S., FISCHERCOLBRIE, A., Shimazaki, A., Miyazaki, K., Madden, M., Wherry, D. C., Kortright, J. B.

AMER INST PHYSICS.1995: 1293–97

- **Negative electron affinity on GaAs(110) with Cs and NF<sub>3</sub>: A surface science study** *Photodetectors and Power Meters II Conference*  
Cao, R., Tang, H., Pianetta, P.  
SPIE-INT SOC OPTICAL ENGINEERING.1995: 132–141
- **BEHAVIOR OF TELLURIUM ON SILICON(100)** *SURFACE SCIENCE*  
YOSHIKAWA, S. A., Nogami, J., Quate, C. F., Pianetta, P.  
1994; 321 (3): L183-L188
- **SYNCHROTRON-RADIATION TOTAL-REFLECTION X-RAY-FLUORESCENCE SPECTROSCOPY FOR WAFER SURFACE TRACE IMPURITY ANALYSIS**  
LADERMAN, S. S., FISCHERCOLBRIE, A., Shimazaki, A., Miyazaki, K., Kaneko, M., Matsumura, T., Brennan, S., Takaura, N., Pianetta, P., Kortright, J. B.  
AMER CHEMICAL SOC.1994: 60-IEC
- **SHORT-WAVELENGTH FELS USING THE SLAC LINAC** *8th National Conference on Synchrotron Radiation Instrumentation*  
Winick, H., Bane, K., Boyce, R., Cobb, J., Loew, G., Morton, P., Nuhn, H. D., Paterson, J., Pianetta, P., Raubenheimer, T., Seeman, J., Tatchyn, R., Vylet, et al  
ELSEVIER SCIENCE BV.1994: 199–205
- **WIDE BAND-PASS APPROACHES TO TOTAL-REFLECTION X-RAY-FLUORESCENCE USING SYNCHROTRON-RADIATION** *8th National Conference on Synchrotron Radiation Instrumentation*  
Brennan, S., Tompkins, W., Takaura, N., Pianetta, P., LADERMAN, S. S., FISCHERCOLBRIE, A., Kortright, J. B., Madden, M. C., Wherry, D. C.  
ELSEVIER SCIENCE BV.1994: 417–21
- **PHOTOEMISSION-STUDY OF AU, GE, AND O<sub>2</sub> DEPOSITION ON NH<sub>4</sub>F ETCHED SI(111)** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY A*  
Terry, J., Cao, R., Wigren, C., Pianetta, P.  
1994; 12 (4): 1869-1875
- **GEOMETRICAL STRUCTURE OF THE BI/GAP (110) INTERFACE - AN X-RAY STANDING-WAVE TRIANGULATION STUDY OF A NONIDEAL SYSTEM** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY A*  
HERRERAGOMEZ, A., Kendelewicz, T., Woicik, J. C., Miyano, K. E., Pianetta, P., Southworth, S., COWAN, P. L., Karlin, A., SPICER, W. E.  
1994; 12 (4): 2473-2477
- **CAF<sub>2</sub> OVERLAYERS TO PRESERVE THE IDEAL TERMINATION OF SB/GAAS(110)** *40th National Symposium of the American-Vacuum-Society*  
Green, A. M., SPICER, W. E., Kim, C., Cao, R., Pianetta, P.  
A V S AMER INST PHYSICS.1994: 1158–69
- **STRUCTURAL STUDY OF MONOLAYERS OF SB ON GE(111) WITH DIFFERENT SURFACE RECONSTRUCTIONS** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY A*  
Kendelewicz, T., Woicik, J. C., Miyano, K. E., YOSHIKAWA, S. A., Pianetta, P., SPICER, W. E.  
1994; 12 (4): 1843-1847
- **TOTAL-REFLECTION X-RAY-FLUORESCENCE ANALYSIS OF LIGHT-ELEMENTS USING SYNCHROTRON-RADIATION** *NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT*  
Strelt, C., Wobruschek, P., LADISICH, W., Rieder, R., Aiginger, H., Ryon, R. W., Pianetta, P.  
1994; 345 (2): 399-403
- **THE SLAC SOFT-X-RAY HIGH-POWER FEL** *15th International Free Electron Laser Conference*  
Pellegrini, C., Rosenzweig, J., Travish, G., Bane, K., Boyce, R., Loew, G., Morton, P., Nuhn, H. D., Paterson, J., Pianetta, P., Raubenheimer, T., Seeman, J., Tatchyn, et al  
ELSEVIER SCIENCE BV.1994: 326–30
- **BORON RECONSTRUCTED SI(111) SURFACES PRODUCED BY B<sub>2</sub>O<sub>3</sub> DECOMPOSITION** *Workshop Program on Interface Formation and Dynamics in Layered Structures, at the Scanning Microscopy 1994 Meeting*  
Nogami, J., Yoshikawa, S., Glueckstein, J. C., Pianetta, P.  
SCANNING MICROSCOPY INT.1994: 835–40
- **A PERFORMANCE AND APPLICATIONS STUDY OF THE PHOTOELECTRON SPECTROMICROSCOPE** *JOURNAL OF ELECTRON SPECTROSCOPY AND RELATED PHENOMENA*  
Keenlyside, M., Pianetta, P.  
1993; 66 (1-2): 189-207

- **STRUCTURAL INFORMATION ON Y-IONS IN C82 FROM EXAFS EXPERIMENTS** *CHEMICAL PHYSICS LETTERS*  
Park, C. H., Wells, B. O., DiCarlo, J., Shen, Z. X., Salem, J. R., Bethune, D. S., Yannoni, C. S., Johnson, R. D., deVries, M. S., Booth, C., Bridges, F., Pianetta, P.  
1993; 213 (1-2): 196-201
- **IN/SI(111)-ROOT-3X-ROOT-3 INTERFACE - AN UNRELAXED T(4) GEOMETRY** *PHYSICAL REVIEW LETTERS*  
Woicik, J. C., Kendelewicz, T., HERRERAGOMEZ, A., Miyano, K. E., COWAN, P. L., Bouldin, C. E., Pianetta, P., SPICER, W. E.  
1993; 71 (8): 1204-1207
- **PARTICLE-INDUCED AND PHOTOINDUCED CONDUCTIVITY IN TYPE-IIA DIAMONDS** *JOURNAL OF APPLIED PHYSICS*  
Pan, L. S., Han, S., Kania, D. R., Zhao, S., Gan, K. K., Kagan, H., Kass, R., Malchow, R., Morrow, F., Palmer, W. F., White, C., Kim, S. K., SANNES, et al  
1993; 74 (2): 1086-1095
- **STRUCTURE OF SB MONOLAYERS ON GE(111)2X1 - A COMBINED STUDY USING CORE-LEVEL PHOTOEMISSION, X-RAY STANDING WAVES, AND SURFACE EXTENDED X-RAY-ABSORPTION FINE-STRUCTURE** *20TH ANNUAL CONF ON THE PHYSICS AND CHEMISTRY OF SEMICONDUCTOR INTERFACES*  
Kendelewicz, T., Woicik, J. C., Miyano, K. E., HERRERAGOMEZ, A., COWAN, P. L., Pianetta, P., SPICER, W. E.  
A V S AMER INST PHYSICS.1993: 1449-54
- **PHOTOEMISSION-STUDY OF DIAMOND (100) SURFACE** *39TH NATIONAL SYMP OF THE AMERICAN VACUUM SOC*  
Wu, J., Cao, R., Yang, X., Pianetta, P., LINDAU, I.  
A V S AMER INST PHYSICS.1993: 1048-51
- **DETERMINATION OF THE GEOMETRICAL CONFIGURATION OF BI ON GAAS (110) BY X-RAY STANDING-WAVE TRIANGULATION** *39TH NATIONAL SYMP OF THE AMERICAN VACUUM SOC*  
HERRERAGOMEZ, A., Kendelewicz, T., Woicik, J. C., Miyano, K. E., Pianetta, P., Southworth, S., COWAN, P. L., Karlin, B. A., SPICER, W. E.  
A V S AMER INST PHYSICS.1993: 2354-58
- **FERMI-LEVEL VARIATION ON GAAS(110) SURFACE WITH SB OVERLAYER STUDIED WITH A PHOTOELECTRON MICROSCOPE** *20TH ANNUAL CONF ON THE PHYSICS AND CHEMISTRY OF SEMICONDUCTOR INTERFACES*  
Kim, C. Y., Cao, R. Y., Pianetta, P.  
A V S AMER INST PHYSICS.1993: 1575-78
- **A 2 TO 4NM HIGH-POWER FEL ON THE SLAC LINAC** *14TH INTERNATIONAL CONF ON FREE ELECTRON LASER ( FEL 92 )*  
Pellegrini, C., Rosenzweig, J., Nuhn, H. D., Pianetta, P., Tatchyn, R., Winick, H., Bane, K., Morton, P., Raubenheimer, T., Seeman, J., Halbach, K., Kim, K. J., Kirz, et al  
ELSEVIER SCIENCE BV.1993: 223-27
- **ATOMIC AND ELECTRONIC-STRUCTURE OF B/SI(100)** *20TH ANNUAL CONF ON THE PHYSICS AND CHEMISTRY OF SEMICONDUCTOR INTERFACES*  
Cao, R., Yang, X., Pianetta, P.  
A V S AMER INST PHYSICS.1993: 1455-58
- **X-RAY STANDING-WAVE STUDY OF THE SB/GAAS(110) INTERFACE STRUCTURE** *39TH NATIONAL SYMP OF THE AMERICAN VACUUM SOC*  
Kendelewicz, T., Woicik, J. C., HERRERAGOMEZ, A., Miyano, K. E., COWAN, P. L., Karlin, B. A., Pianetta, P., SPICER, W. E.  
A V S AMER INST PHYSICS.1993: 2351-53
- **CHARACTERIZATION OF THE B/SI SURFACE ELECTRONIC-STRUCTURES** *39TH NATIONAL SYMP OF THE AMERICAN VACUUM SOC*  
Cao, R., Yang, X., Pianetta, P.  
A V S AMER INST PHYSICS.1993: 1817-22
- **ADATOM LOCATION ON THE SI(111) 7X7 AND SI(111) ROOT-3X-ROOT-3-IN SURFACES BY THE X-RAY STANDING-WAVE AND PHOTOEMISSION TECHNIQUES** *39TH NATIONAL SYMP OF THE AMERICAN VACUUM SOC*  
Woicik, J. C., Kendelewicz, T., HERRERAGOMEZ, A., ANDREWS, A. B., Kim, B. S., COWAN, P. L., Miyano, K. E., Bouldin, C. E., Karlin, B. A., Herman, G. S., Erskine, J. L., Pianetta, P., SPICER, et al  
A V S AMER INST PHYSICS.1993: 2359-63
- **IMAGING BAND-PASS ANALYZER USING DOUBLE 90-DEGREES SPHERICAL ANALYZERS** *REVIEW OF SCIENTIFIC INSTRUMENTS*  
Kim, C. Y., King, P. L., Pianetta, P., Kelly, M. A., Bryson, C. A.  
1993; 64 (5): 1187-1193



- **SURFACE EXTENDED X-RAY-ABSORPTION FINE-STRUCTURE STUDY OF THE (1 MONOLAYER SB) GAP(110) INTERFACE** *PHYSICAL REVIEW B*  
Miyano, K. E., Woicik, J. C., Kendelewicz, T., SPICER, W. E., Richter, M., Pianetta, P.  
1993; 47 (11): 6444-6449
- **TEMPERATURE-DEPENDENT MOBILITY IN SINGLE-CRYSTAL AND CHEMICAL VAPOR-DEPOSITED DIAMOND** *JOURNAL OF APPLIED PHYSICS*  
Pan, L. S., Kania, D. R., Pianetta, P., Ager, J. W., LANDSTRASS, M. I., Han, S.  
1993; 73 (6): 2888-2894
- **THE EPITAXIAL-GROWTH OF GE ON SI(100) USING TE AS A SURFACTANT** *SYMP ON COMMON THEMES AND MECHANISMS OF EPITAXIAL GROWTH, AT THE 1993 SPRING MEETING AT THE MATERIALS-RESEARCH-SOC*  
Yang, X., Cao, R., Li, J., Terry, J., Wu, J., Pianetta, P.  
MATERIALS RESEARCH SOC.1993: 243-248
- **SYNCHROTRON-RADIATION FOR MEASUREMENT OF CONTAMINANTS ON SILICON SURFACES** *SYMP ON APPLICATIONS OF SYNCHROTRON RADIATION TECHNIQUES TO MATERIALS SCIENCE, AT THE 1993 SPRING MEETING OF THE MATERIALS RESEARCH SOC*  
Madden, M. C., Wherry, D. C., Pianetta, P., Brennan, S.  
MATERIALS RESEARCH SOC.1993: 125-130
- **ELECTRICAL-PROPERTIES OF NATURAL IIA DIAMONDS USING PHOTO EXCITATION AND PARTICLE EXCITATION** *1ST SYMP ON SEMICONDUCTORS FOR ROOM-TEMPERATURE RADIATION DETECTOR APPLICATIONS, AT THE 1993 SPRING MEETING OF THE MATERIALS RESEARCH SOC*  
Pan, L. S., Han, S., Kania, D. R., Gan, K. K., Zhao, S., Kagan, H., Kass, R., Malchow, R., Morrow, F., Palmer, W. F., White, C., Kim, S. K., SANNES, et al  
MATERIALS RESEARCH SOC.1993: 245-250
- **A 2-4 NM LINAC COHERENT-LIGHT SOURCE (LCLS) USING THE SLAC LINAC** *1993 Particle Accelerator Conference*  
Winick, H., Bane, K., Boyce, R., Loew, G., Morton, P., Nuhn, H. D., Paterson, J., Pianetta, P., Raubenheimer, T., Seeman, J., Tatchyn, R., Vylet, V., Pellegrini, et al  
I E E E.1993: 1445-1447
- **LINAC COHERENT-LIGHT SOURCE (LCLS) AT 2-4 NM USING THE SLAC LINAC** *Conference on Electron-Beam Sources of High-Brightness Radiation*  
Seeman, J. T., Bane, K., Boyce, R., Loew, G., Morton, P., Nuhn, H. D., Paterson, J., Pianetta, P., Raubenheimer, T., Tatchyn, R., Vylet, V., Winick, H., Pellegrini, et al  
SPIE - INT SOC OPTICAL ENGINEERING.1993: 116-125
- **X-RAY-BEAM LINES AND BEAM LINE COMPONENTS FOR THE SLAC LINAC COHERENT-LIGHT SOURCE (LCLS)** *1993 Particle Accelerator Conference*  
Tatchyn, R., Pianetta, P.  
I E E E.1993: 1536-1538
- **MICROSCOPIC STUDY OF THE SURFACTANT-ASSISTED SI, GE EPITAXIAL-GROWTH** *APPLIED PHYSICS LETTERS*  
Cao, R., Yang, X., Terry, J., Pianetta, P.  
1992; 61 (19): 2347-2349
- **EXTENDED X-RAY-ABSORPTION FINE-STRUCTURE DETERMINATION OF BOND-LENGTH CONSERVATION AT THE CLEAN INP(110) SURFACE** *PHYSICAL REVIEW B*  
Woicik, J. C., Kendelewicz, T., Miyano, K. E., Richter, M., Bouldin, C. E., Pianetta, P., SPICER, W. E.  
1992; 46 (15): 9869-9872
- **CA 3D UNOCCUPIED STATES IN BI2SR2CACU2O8 INVESTIGATED BY CA L(2,3) X-RAY-ABSORPTION NEAR-EDGE STRUCTURE** *PHYSICAL REVIEW B*  
Borg, A., King, P. L., Pianetta, P., LINDAU, I., Mitzi, D. B., Kapitulnik, A., Soldatov, A. V., DELLALONGA, S., Bianconi, A.  
1992; 46 (13): 8487-8495
- **STRUCTURAL CHARACTERIZATION OF THE (1 MONOLAYER SB)/GAP(110) INTERFACE USING X-RAY STANDING WAVES** *PHYSICAL REVIEW B*  
Miyano, K. E., Kendelewicz, T., Woicik, J. C., COWAN, P. L., Bouldin, C. E., Karlin, B. A., Pianetta, P., SPICER, W. E.  
1992; 46 (11): 6869-6874



- **X-RAY STANDING-WAVE STUDY OF MONOLAYERS OF SB ON GAAS(110)** *PHYSICAL REVIEW B*  
Kendelewicz, T., Woicik, J. C., Miyano, K. E., HERRERAGOMEZ, A., COWAN, P. L., Karlin, B. A., Bouldin, C. E., Pianetta, P., SPICER, W. E.  
1992; 46 (11): 7276-7279
- **INSITU OPTICAL-ELEMENT CLEANING WITH PHOTON ACTIVATED OXYGEN** *7TH NATIONAL CONF ON SYNCHROTRON RADIATION INSTRUMENTATION*  
Warburton, W. K., Pianetta, P.  
ELSEVIER SCIENCE BV.1992: 240-43
- **ELECTRONIC-STRUCTURE OF SINGLE-CRYSTAL C-60** *PHYSICA C-SUPERCONDUCTIVITY AND ITS APPLICATIONS*  
Wu, J., Shen, Z. X., Dessau, D. S., Cao, R., Marshall, D. S., Pianetta, P., LINDAU, I., Yang, X., Terry, J., King, D. M., Wells, B. O., ELLOWAY, D., Wendt, et al  
1992; 197 (3-4): 251-260
- **FERMI-LEVEL INHOMOGENEITIES ON THE GAAS (110) SURFACE IMAGED WITH A PHOTOELECTRON MICROSCOPE** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY B*  
Kim, C. Y., King, P. L., Pianetta, P.  
1992; 10 (4): 1944-1948
- **SI(100) AND GE(100) CORE-LEVEL SHIFTS - A REEVALUATION** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY B*  
Yang, X., Cao, R., Terry, J., Pianetta, P.  
1992; 10 (4): 2013-2017
- **EXTENDED X-RAY ABSORPTION FINE-STRUCTURE AND X-RAY STANDING WAVE STUDY OF THE CLEAN INP(110) SURFACE RELAXATION** *38TH NATIONAL SYMP OF THE AMERICAN VACUUM SOC*  
Woicik, J. C., Kendelewicz, T., Miyano, K. E., COWAN, P. L., Richter, M., Karlin, B. A., Bouldin, C. E., Pianetta, P., SPICER, W. E.  
A V S AMER INST PHYSICS.1992: 2041-45
- **CORE-LEVEL SHIFTS OF THE GE(100)-(2X1) SURFACE AND THEIR ORIGINS** *PHYSICAL REVIEW B*  
Cao, R., Yang, X., Terry, J., Pianetta, P.  
1992; 45 (23): 13749-13752
- **ELECTRICAL TRANSPORT-PROPERTIES OF UNDOPED CVD DIAMOND FILMS** *SCIENCE*  
Pan, L. S., Kania, D. R., Han, S., Ager, J. W., LANDSTRASS, M., Landen, O. L., Pianetta, P.  
1992; 255 (5046): 830-833
- **X-RAY STANDING-WAVE DETERMINATION OF THE CLEAN INP(110) SURFACE RECONSTRUCTION** *PHYSICAL REVIEW LETTERS*  
Woicik, J. C., Kendelewicz, T., Miyano, K. E., COWAN, P. L., Bouldin, C. E., Karlin, B. A., Pianetta, P., SPICER, W. E.  
1992; 68 (3): 341-344
- **THE STANFORD SYNCHROTRON RADIATION LABORATORY - AN UPDATE** *4TH INTERNATIONAL CONF ON SYNCHROTRON RADIATION INSTRUMENTATION*  
Cantwell, K., Pianetta, P.  
AMER INST PHYSICS.1992: 1609-10
- **THE MULTISPECTRAL SOLAR TELESCOPE ARRAY .2. SOFT-X-RAY EUV REFLECTIVITY OF THE MULTILAYER MIRRORS** *CONF ON MULTILAYER AND GRAZING INCIDENCE X-RAY/EUV OPTICS*  
Barbee, T. W., WEED, J. W., Hoover, R. B., Allen, M. J., LINDBLOM, J. F., ONEAL, R. H., Kankelborg, C. C., DeForest, C. E., PARIS, E. S., Walker, A. B., Willis, T. D., Gluskin, E., Pianetta, et al  
SPIE - INT SOC OPTICAL ENGINEERING.1992: 432-445
- **A PHOTOEMISSION-STUDY OF ELECTROCHEMICALLY ETCHED LIGHT-EMITTING SILICON**  
Terry, J., Liu, H., Cao, R., Woicik, J. C., Pianetta, P., Yang, X., Wu, J., Richter, M., Maluf, N., Pease, F., Dillon, A., Robinson, M., George, et al  
MATERIALS RESEARCH SOC.1992: 421-426
- **PHOTOEMISSION-STUDY OF THE SI, GE EPITAXIAL-GROWTH PROCESS USING SURFACTANTS**  
Yang, X. Y., Cao, R. Y., Terry, J., Pianetta, P.  
MATERIALS RESEARCH SOC.1992: 455-460
- **DETERMINATION OF THE SB/SI(111) INTERFACIAL STRUCTURE BY BACK-REFLECTION X-RAY STANDING WAVES AND SURFACE EXTENDED X-RAY-ABSORPTION FINE-STRUCTURE** *PHYSICAL REVIEW B*  
Woicik, J. C., Kendelewicz, T., Miyano, K. E., COWAN, P. L., Bouldin, C. E., Karlin, B. A., Pianetta, P., SPICER, W. E.

1991; 44 (7): 3475-3478

- **PHOTOCONDUCTIVE MEASUREMENTS ON MICROWAVE-ASSISTED PLASMA-ENHANCED CHEMICALLY VAPOR-DEPOSITED DIAMOND FILMS** *1ST EUROPEAN CONF ON DIAMOND AND DIAMOND-LIKE CARBON COATINGS*  
Pan, L. S., Kania, D. R., Pianetta, P., LANDSTRASS, M., Landen, O. L., PLANO, L. S.  
ELSEVIER SCIENCE SA.1991: 356-64
- **MULTISPECTRAL SOLAR TELESCOPE ARRAY .2. SOFT-X-RAY EUV REFLECTIVITY OF THE MULTILAYER MIRRORS** *OPTICAL ENGINEERING*  
Barbee, T. W., WEED, J. W., Hoover, R. B., Allen, M. J., LINDBLOM, J. F., ONEAL, R. H., Kankelborg, C. C., DeForest, C. E., PARIS, E. S., Walker, A. B., Willis, T. D., Gluskin, E., Pianetta, et al  
1991; 30 (8): 1067-1075
- **SYNCHROTRON X-RAY STANDING-WAVE STUDY OF SB ON GAAS(110) AND INP(110)** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY B*  
Kendelewicz, T., Woicik, J. C., Miyano, K. E., COWAN, P. L., Karlin, B. A., Bouldin, C. E., Pianetta, P., SPICER, W. E.  
1991; 9 (4): 2290-2293
- **SYNCHROTRON-BASED IMAGING WITH A MAGNETIC PROJECTION PHOTOELECTRON MICROSCOPE** *ULTRAMICROSCOPY*  
King, P. L., Borg, A., Kim, C., YOSHIKAWA, S. A., Pianetta, P., LINDAU, I.  
1991; 36 (1-3): 117-129
- **SURFACE EXTENDED X-RAY ADSORPTION FINE-STRUCTURE STUDIES OF THE SI(001) 2X1-SB INTERFACE** *37TH NATIONAL SYMP OF THE AMERICAN VACUUM SOC*  
Richter, M., Woicik, J. C., Pianetta, P., Miyano, K. E., Kendelewicz, T., Bouldin, C. E., SPICER, W. E., LINDAU, I.  
A V S AMER INST PHYSICS.1991: 1951-55
- **STRUCTURE OF THE SI(111) SQUARE-ROOT-OF-3 X SQUARE-ROOT-OF-3-SB INTERFACE BY SURFACE X-RAY ABSORPTION FINE-STRUCTURE AND PHOTOEMISSION** *37TH NATIONAL SYMP OF THE AMERICAN VACUUM SOC*  
Woicik, J. C., Kendelewicz, T., Miyano, K. E., Bouldin, C. E., Meissner, P. L., Pianetta, P., SPICER, W. E.  
A V S AMER INST PHYSICS.1991: 1956-61
- **X-RAY-INDUCED DAMAGE STUDIES IN SIC X-RAY-LITHOGRAPHY MASK MEMBRANES** *MICROELECTRONIC ENGINEERING*  
Redaelli, R., Pianetta, P., Rousseaux, F., HAGHIRIGOSNET, A. M., Kebabi, B., Madouri, A.  
1991; 13 (1-4): 263-266
- **LOCAL BONDING STRUCTURE OF SB ON SI(111) BY SURFACE EXTENDED X-RAY-ABSORPTION FINE-STRUCTURE AND PHOTOEMISSION** *PHYSICAL REVIEW B*  
Woicik, J. C., Kendelewicz, T., Miyano, K. E., Bouldin, C. E., Meissner, P. L., Pianetta, P., SPICER, W. E.  
1991; 43 (5): 4331-4339
- **CONSERVATION OF BOND LENGTHS IN STRAINED GE-SI LAYERS** *PHYSICAL REVIEW B*  
Woicik, J. C., Bouldin, C. E., Bell, M. I., Cross, J. O., Tweet, D. J., Swanson, B. D., Zhang, T. M., Sorensen, L. B., King, C. A., Hoyt, J. L., Pianetta, P., Gibbons, J. F.  
1991; 43 (3): 2419-2422
- **X-RAY-INDUCED DAMAGE STUDIES IN SIC X-RAY-LITHOGRAPHY MASK MEMBRANES** *INTERNATIONAL CONF ON MICROLITHOGRAPHY*  
Redaelli, R., Pianetta, P., Rousseaux, F., HAGHIRIGOSNET, A. M., Kebabi, B., Madouri, A.  
ELSEVIER SCIENCE PUBL B V.1991: 263-266
- **INTRINSIC PHOTOCONDUCTIVITY IN POLYCRYSTALLINE CVD DIAMOND FILMS AND IN NATURAL AND SYNTHETIC BULK DIAMONDS** *2ND INTERNATIONAL CONF ON THE NEW DIAMOND SCIENCE AND TECHNOLOGY*  
Pan, L. S., Kania, D. R., Pianetta, P., Landen, O. L., LANDSTRASS, M.  
MATERIALS RESEARCH SOC.1991: 729-734
- **TEMPERATURE-DEPENDENT PHOTOCONDUCTIVITY MEASUREMENTS ON TYPE IIA DIAMONDS AND POLYCRYSTALLINE DIAMOND FILMS** *1ST INTERNATIONAL CONF ON THE APPLICATIONS OF DIAMOND FILMS AND RELATED MATERIALS ( ADC 91 )*  
Pan, L. S., Kania, D. R., Pianetta, P., Landen, O. L., LANDSTRASS, M.  
ELSEVIER SCIENCE PUBL B V.1991: 341-346
- **SURFACE EXTENDED-X-RAY-ABSORPTION FINE-STRUCTURE AND SCANNING TUNNELING MICROSCOPY OF SI(001)2X1-SB** *PHYSICAL REVIEW LETTERS*  
Richter, M., Woicik, J. C., Nogami, J., Pianetta, P., Miyano, K. E., Baski, A. A., Kendelewicz, T., Bouldin, C. E., SPICER, W. E., Quate, C. F., LINDAU, I.

1990; 65 (27): 3417-3420

- **SOFT-X-RAY DETECTION WITH DIAMOND PHOTOCONDUCTIVE DETECTORS** *8TH TOPICAL CONF ON HIGH TEMPERATURE PLASMA DIAGNOSTICS*  
Kania, D. R., Pan, L., Kornblum, H., Bell, P., LANDEN, O. N., Pianetta, P.  
AMER INST PHYSICS.1990: 2765-67
- **CARRIER DENSITY DEPENDENT PHOTOCONDUCTIVITY IN DIAMOND** *APPLIED PHYSICS LETTERS*  
Pan, L. S., Kania, D. R., Pianetta, P., Landen, O. L.  
1990; 57 (6): 623-625
- **MULTILAYER DIFFRACTION GRATINGS - APPLICATION TO SYNCHROTRON RADIATION INSTRUMENTATION** *CONF ON X-RAY/EUV OPTICS FOR ASTRONOMY AND MICROSCOPY*  
Barbee, T. W., Rife, J. C., Hunter, W. R., Cruddace, R. G., Pianetta, P.  
SOC PHOTO-OPT INSTRUM ENG.1990: 738-44
- **ABSOLUTE X-RAY POWER MEASUREMENTS WITH SUBNANOSECOND TIME RESOLUTION USING TYPE IIA DIAMOND PHOTOCONDUCTORS** *JOURNAL OF APPLIED PHYSICS*  
Kania, D. R., Pan, L. S., Bell, P., Landen, O. L., Kornblum, H., Pianetta, P., Perry, M. D.  
1990; 68 (1): 124-130
- **SEMICONDUCTOR SURFACE CORE LEVEL SHIFTS BY USE OF SELECTED OVERLAYERS** *PHYSICA SCRIPTA*  
Woicik, J. C., Kendelewicz, T., Miyano, K., Cao, R., Pianetta, P., LINDAU, I., SPICER, W. E.  
1990; 41 (6): 1034-1036
- **A NOVEL DIFFERENTIAL PUMP FOR SYNCHROTRON BEAMLINES - TESTS, MODELS AND APPLICATIONS** *6TH NATIONAL CONF ON SYNCHROTRON RADIATION INSTRUMENTATION*  
Warburton, W. K., Pianetta, P.  
ELSEVIER SCIENCE BV.1990: 350-56
- **FROM SMALL-AREA TO IMAGING PHOTOABSORPTION SPECTROSCOPY** *6TH NATIONAL CONF ON SYNCHROTRON RADIATION INSTRUMENTATION*  
King, P. L., Borg, A., Kim, C., Pianetta, P., LINDAU, I., Knapp, G. S., Keenlyside, M., Browning, R.  
ELSEVIER SCIENCE BV.1990: 19-25
- **CORE LEVEL PHOTOELECTRON MICROSCOPY** *4TH INTERNATIONAL CONF ON ELECTRON SPECTROSCOPY ( ICES4 )*  
Pianetta, P., King, P. L., Borg, A., Kim, C., LINDAU, I., Knapp, G., Keenlyside, M., Browning, R.  
ELSEVIER SCIENCE BV.1990: 797-810
- **SMALL AREA PHOTOEMISSION AND PHOTOABSORPTION MEASUREMENTS USING A PHOTOELECTRON MICROSCOPE** *PHYSICA SCRIPTA*  
King, P. L., Borg, A., Kim, C., Pianetta, P., LINDAU, I., Knapp, G., Keenlyside, M.  
1990; 41 (4): 413-417
- **TRANSIENT PHOTOCONDUCTIVE MEASUREMENTS OF MICROWAVE AND DC PLASMA CVD PRODUCED DIAMOND FILMS**  
Kania, D. R., Landen, O. L., Pan, L. S., Pianetta, P.  
PERGAMON-ELSEVIER SCIENCE LTD.1990: 791-91
- **CE PROMOTED OXIDATION OF GAAS(100) SURFACES** *20TH INTERNATIONAL CONF ON THE PHYSICS OF SEMICONDUCTORS*  
Borg, A., Bernstein, R. W., Grepstad, J. K., King, P. L., Yang, X., Pianetta, P., LINDAU, I.  
WORLD SCIENTIFIC PUBL CO PTE LTD.1990: 243-246
- **SI(111) 2 X-1 SURFACE CORE-LEVEL SHIFTS INVESTIGATED BY USE OF GE OVERLAYER** *PHYSICAL REVIEW B*  
Woicik, J. C., Pianetta, P., Kendelewicz, T.  
1989; 40 (18): 12463-12467
- **IMAGE-PROCESSING OF MULTISPECTRAL X-RAY PHOTOELECTRON-SPECTROSCOPY IMAGES** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY A*  
King, P. L., Browning, R., Pianetta, P., LINDAU, I., Keenlyside, M., Knapp, G.  
1989; 7 (6): 3301-3304

- **CORE LEVEL PHOTOELECTRON MICROSCOPY WITH SYNCHROTRON RADIATION** *REVIEW OF SCIENTIFIC INSTRUMENTS*  
Pianetta, P., LINDAU, I., King, P. L., Keenlyside, M., Knapp, G., Browning, R.  
1989; 60 (7): 1686-1689
- **SILICON(111) 2X1 SURFACE-STATES - K-EDGE TRANSITIONS AND SURFACE SELECTIVE L2,3VV AUGER LINESHAPE** *PHYSICA B-CONDENSED MATTER*  
Woicik, J. C., Pate, B. B., Pianetta, P.  
1989; 158 (1-3): 576-577
- **SILICON(111) 2X1 SURFACE-STATES - K-EDGE TRANSITIONS AND SURFACE-SELECTIVE L2,3VV AUGER LINE-SHAPE** *PHYSICAL REVIEW B*  
Woicik, J. C., Pate, B. B., Pianetta, P.  
1989; 39 (12): 8593-8604
- **PHOTON-ENERGY-SENSITIVE SIL2,3VV AUGER SATELLITE** *PHYSICAL REVIEW B*  
Woicik, J. C., Pianetta, P., Sorensen, S. L., Crasemann, B.  
1989; 39 (9): 6048-6051
- **MULTILAYER DIFFRACTION GRATINGS - APPLICATION TO SYNCHROTRON RADIATION INSTRUMENTATION** *CONF ON X-RAY/EUV OPTICS FOR ASTRONOMY AND MICROSCOPY*  
Barbee, T. W., Rife, J. C., Hunter, W. R., Cruddace, R. G., Pianetta, P.  
SPIE - INT SOC OPTICAL ENGINEERING.1989: 636-647
- **PROCESS-CONTROL WITH CHEMICAL AMPLIFICATION RESISTS USING DEEP ULTRAVIOLET AND X-RAY-RADIATION** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY B*  
Seligson, D., Das, S., GAW, H., Pianetta, P.  
1988; 6 (6): 2303-2307
- **ORIENTATIONAL DISORDER IN AMORPHOUS-SILICON PROBED BY XANES (X-RAY ABSORPTION NEAR EDGE STRUCTURE)** *PHYSICA SCRIPTA*  
DICICCO, A., Bianconi, A., Benfatto, M., Marcelli, A., Natoli, C. R., Pianetta, P., Woicik, J.  
1988; 38 (3): 408-411
- **KAPPA-RESOLVED ALLOY BOWING IN PSEUDOBINARY INXGA1-XAS ALLOYS** *PHYSICAL REVIEW LETTERS*  
Hwang, J., Pianetta, P., Pao, Y. C., Shih, C. K., Shen, Z. X., LINDBERG, P. A., Chow, R.  
1988; 61 (7): 877-880
- **THE EFFECT OF STRAIN ON THE BAND-STRUCTURE OF INXGA1-XAS** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY B*  
Hwang, J., Pianetta, P., Kubiak, G. D., Stulen, R. H., Shin, C. K., Pao, Y. C., Shen, Z. X., LINDBERG, P. A., Chow, R.  
1988; 6 (4): 1234-1239
- **THE EFFECT OF STRAIN ON THE BAND-STRUCTURE OF GAAS AND IN0.2GA0.8AS**  
Hwang, J., Shih, C. K., Pianetta, P., Kubiak, G. D., Stulen, R. H., Dawson, L. R., Pao, Y. C., Harris, J. S.  
A V S AMER INST PHYSICS.1988: 1348-49
- **BONDING AT THE K/SI(100)2X1 INTERFACE - A SURFACE EXTENDED X-RAY ABSORPTION FINE-STRUCTURE STUDY**  
Kendelewicz, T., Woicik, J. C., LIST, R. S., Soukiassian, P., Pate, B. B., Pianetta, P., LINDAU, I., SPICER, W. E.  
A V S AMER INST PHYSICS.1988: 879-80
- **BONDING AT THE K/SI(100) 2X1 INTERFACE - A SURFACE EXTENDED X-RAY-ABSORPTION FINE-STRUCTURE STUDY** *PHYSICAL REVIEW B*  
Kendelewicz, T., Soukiassian, P., LIST, R. S., Woicik, J. C., Pianetta, P., LINDAU, I., SPICER, W. E.  
1988; 37 (12): 7115-7117
- **SOFT-X-RAY DOSIMETRY AND ITS APPLICATION ON THE LITHOGRAPHY BEAMLINE AT SSRL** *NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT*  
Seligson, D., Pan, L., King, P., Pianetta, P.  
1988; 266 (1-3): 612-618
- **APPLICATIONS OF MULTILAYERS TO SYNCHROTRON RADIATION** *NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT*

- Pianetta, P., Barbee, T. W.  
1988; 266 (1-3): 441-446
- **SYNCHROTRON-BASED X-RAY-LITHOGRAPHY AT STANFORD-UNIVERSITY** *NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT*  
Pan, L., King, P. L., Pianetta, P., Seligson, D., Barbee, T. W.  
1988; 266 (1-3): 287-292
  - **MULTI-UNDULATOR BEAM LINE-V AT SSRL - A PROGRESS REPORT** *NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT*  
BACHRACH, R. Z., Bringans, R. D., SWARTZ, L. E., LINDAU, I., Pate, B. B., Carr, R. G., Hower, N., Youngman, B., Morales, H., Pianetta, P.  
1988; 266 (1-3): 83-90
  - **SPLITTING OF THE WHITE LINE 1S ABSORPTION-EDGE IN CRYSTALLINE SI, SIGE, AND DILUTE SIGE** *SOLID STATE COMMUNICATIONS*  
Woicik, J. C., LIST, R. S., Pate, B. B., Pianetta, P.  
1988; 65 (7): 685-688
  - **EFFECT OF STRAIN ON THE BAND-STRUCTURE OF GAAS AND IN<sub>0.2</sub>GA<sub>0.8</sub>AS** *APPLIED PHYSICS LETTERS*  
Hwang, J., Shih, C. K., Pianetta, P., Kubiak, G. D., Stulen, R. H., Dawson, L. R., Pao, Y. C., Harris, J. S.  
1988; 52 (4): 308-310
  - **RADIATION-DAMAGE IN BORON-NITRIDE X-RAY-LITHOGRAPHY MASKS** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY B*  
King, P. L., Pan, L., Pianetta, P., SHIMKUNAS, A., Mauger, P., Seligson, D.  
1988; 6 (1): 162-166
  - **DETERMINATION OF THE NATURAL VALENCE-BAND OFFSET IN THE INXGA<sub>1</sub>-XAS SYSTEM** *APPLIED PHYSICS LETTERS*  
Hwang, J., Pianetta, P., Shih, C. K., SPICER, W. E., Pao, Y. C., Harris, J. S.  
1987; 51 (20): 1632-1633
  - **MULTIPLE-SCATTERING EFFECTS IN THE K-EDGE X-RAY-ABSORPTION NEAR-EDGE STRUCTURE OF CRYSTALLINE AND AMORPHOUS-SILICON** *PHYSICAL REVIEW B*  
Bianconi, A., DICICCO, A., Pavel, N. V., Benfatto, M., Marcelli, A., Natoli, C. R., Pianetta, P., Woicik, J.  
1987; 36 (12): 6426-6433
  - **MOLYBDENUM-SILICON MULTILAYER MONOCHROMATOR FOR THE EXTREME ULTRAVIOLET** *APPLIED PHYSICS LETTERS*  
Barbee, T. W., Pianetta, P., Redaelli, R., Tatchyn, R., Barbee, T. W.  
1987; 50 (25): 1841-1843
  - **THE SILICON GERMANIUM(111) INTERFACE - THE ONSET OF EPITAXY** *JOURNAL DE PHYSIQUE*  
Woicik, J. C., LIST, R. S., Pate, B. B., Pianetta, P.  
1986; 47 (C-8): 497-501
  - **SI/INP(110) HETEROJUNCTION** *PHYSICAL REVIEW B*  
MAHOWALD, P. H., LIST, R. S., Woicik, J., Pianetta, P., SPICER, W. E.  
1986; 34 (10): 7069-7075
  - **PERFORMANCE OF LAYERED SYNTHETIC MICROSTRUCTURES IN MONOCHROMATOR APPLICATIONS IN THE SOFT-X-RAY REGION** *NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT*  
Pianetta, P., Barbee, T. W., Redaelli, R.  
1986; 246 (1-3): 352-355
  - **SUBNANOSECOND TIME RESOLVED MEASUREMENTS OF SYNCHROTRON X-RAY PULSES USING PHOTOCONDUCTIVE DETECTORS** *NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT*  
Kania, D. R., BARTLETT, R. J., Pianetta, P.  
1986; 246 (1-3): 534-536
  - **SOFT-X-RAY PHOTOEMISSION WITH THE SSX-100 SPECTROMETER** *NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT*  
Hecht, M. H., Grunthaner, F. J., Pate, B. B., Pianetta, P., Engelhardt, M., Jansen, W., Bryson, C.

1986; 246 (1-3): 806-809

- **CRYSTAL HEATING ON THE JUMBO DOUBLE CRYSTAL MONOCHROMATOR AT SSRL** *NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT*  
Rowen, M., Waldhauer, A., Pianetta, P.  
1986; 246 (1-3): 440-443
- **X-RAY-LITHOGRAPHY AT THE STANFORD SYNCHROTRON RADIATION LABORATORY** *NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT*  
Pianetta, P., Redaelli, R., Jaeger, R., Barbee, T. W.  
1986; 246 (1-3): 641-643
- **X-RAY-LITHOGRAPHY AT THE STANFORD-SYNCHROTRON-RADIATION-LABORATORY (SSRL)** *PROCEEDINGS OF THE SOCIETY OF PHOTO-OPTICAL INSTRUMENTATION ENGINEERS*  
Pianetta, P., Redaelli, R., Jaeger, R., Barbee, T. W.  
1985; 537: 69-74
- **EFFECT OF AN AL INTERLAYER ON THE GAAS/GE(100) HETEROJUNCTION FORMATION** *PHYSICAL REVIEW B*  
KATNANI, A. D., CHIARADIA, P., Cho, Y., MAHOWALD, P., Pianetta, P., BAUER, R. S.  
1985; 32 (6): 4071-4076
- **HETEROJUNCTION BAND DISCONTINUITY AT THE SI-GE(111) INTERFACE** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY B*  
MAHOWALD, P. H., LIST, R. S., SPICER, W. E., Woicik, J., Pianetta, P.  
1985; 3 (4): 1252-1255
- **X-RAY RESIST CHARACTERIZATION WITH MONOCHROMATIC SYNCHROTRON RADIATION** *PROCEEDINGS OF THE SOCIETY OF PHOTO-OPTICAL INSTRUMENTATION ENGINEERS*  
JAEGER, R. P., Pianetta, P.  
1984; 471: 121-126
- **COPPER L<sub>2,3</sub> NEAR-EDGE STRUCTURE IN CU<sub>2</sub>O** *PHYSICAL REVIEW B*  
Hulbert, S. L., Bunker, B. A., Brown, F. C., Pianetta, P.  
1984; 30 (4): 2120-2126
- **DESIGN CONSIDERATIONS FOR THE X-RAY-LITHOGRAPHY STATION AT THE STANFORD SYNCHROTRON RADIATION LABORATORY** *NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT*  
Pianetta, P., Tatchyn, R., Jaeger, R., Barbee, T. W.  
1984; 222 (1-2): 355-358
- **PULSED SOFT-X-RAY RESPONSE OF INP-FE PHOTOCONDUCTORS** *APPLIED PHYSICS LETTERS*  
Kania, D. R., BARTLETT, R. J., Wagner, R. S., Hammond, R. B., Pianetta, P.  
1984; 44 (11): 1059-1061
- **ELECTRON-ESCAPE DEPTH VARIATION IN THIN SiO<sub>2</sub>-FILMS MEASURED WITH VARIABLE PHOTON ENERGY** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY A*  
Hecht, M. H., Grunthaner, F. J., Pianetta, P., Johansson, L. I., LINDAU, I.  
1984; 2 (2): 584-587
- **DESIGN AND MODELING CONSIDERATIONS FOR SSRL BEAM LINE WUNDER** *PROCEEDINGS OF THE SOCIETY OF PHOTO-OPTICAL INSTRUMENTATION ENGINEERS*  
BACHRACH, R. Z., Bringans, R. D., Hower, N., LINDAU, I., Pate, B. B., Pianetta, P., SWARTZ, L. E., Tatchyn, R.  
1984; 447: 10-15
- **DESIGN PROCESS AND MODELING STUDIES OF SSRL BEAM LINE WUNDER** *NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT*  
BACHRACH, R. Z., Bringans, R. D., Hower, N., LINDAU, I., Pate, B. B., Pianetta, P., SWARTZ, L. E., Tatchyn, R.  
1984; 222 (1-2): 70-79
- **FAST PHOTOCONDUCTORS FOR SYNCHROTRON RADIATION RESEARCH** *NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT*  
Kania, D. R., BARTLETT, R. J., Wagner, R. S., Hammond, R. B., Pianetta, P.

1984; 222 (1-2): 270-273

- **X-RAY-LITHOGRAPHY STATION AT THE STANFORD-SYNCHROTRON RADIATION-LABORATORY (SSRL) *PROCEEDINGS OF THE SOCIETY OF PHOTO-OPTICAL INSTRUMENTATION ENGINEERS***  
Pianetta, P., Tatchyn, R., Jaeger, R., Barbee, T. W.  
1984; 448: 60-63
- **AN ANGLE-RESOLVED PHOTOEMISSION-STUDY OF THE CHEMISORPTION OF CHALCOGENS ON CU(100) .3. CU(100)+P(2X2)S *SURFACE SCIENCE***  
LING, D. T., Miller, J. N., WEISSMAN, D. L., Pianetta, P., Stefan, P. M., LINDAU, I., SPICER, W. E.  
1983; 124 (1): 175-187
- **ANGLE-RESOLVED PHOTOEMISSION-STUDIES OF OXIDE FORMATION ON CU(100) *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY***  
LING, D. T., Miller, J. N., Pianetta, P., WEISSMAN, D. L., LINDAU, I., SPICER, W. E.  
1982; 21 (1): 47-49
- **ANGLE-RESOLVED PHOTOEMISSION-STUDY OF THE CHEMISORPTION OF CHALCOGENS ON CU(100) .1. CLEAN SURFACE *SURFACE SCIENCE***  
LING, D. T., Miller, J. N., WEISSMAN, D. L., Pianetta, P., Johansson, L. I., LINDAU, I., SPICER, W. E.  
1980; 92 (2-3): 350-364
- **AN ANGLE-RESOLVED PHOTOEMISSION-STUDY OF THE CHEMISORPTION OF CHALCOGENS ON CU(100) .2. CU(100) + C(2 X 2)O *SURFACE SCIENCE***  
LING, D. T., Miller, J. N., WEISSMAN, D. L., Pianetta, P., Stefan, P. M., LINDAU, I., SPICER, W. E.  
1980; 95 (1): 89-106
- **PHOTOEMISSION-STUDY OF THE INTERACTION OF A1 WITH A GAAS (110) SURFACE *JOURNAL OF ELECTRON SPECTROSCOPY AND RELATED PHENOMENA***  
SKEATH, P., LINDAU, I., Pianetta, P., CHYE, P. W., Su, C. Y., SPICER, W. E.  
1979; 17 (4): 259-265
- **EXAFS STUDIES OF THE BONDING GEOMETRY OF OXYGEN ON SI(111) USING ELECTRON YIELD DETECTION *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY***  
Stohr, J., Johansson, L. I., LINDAU, I., Pianetta, P.  
1979; 16 (5): 1221-1224
- **COMPARATIVE STUDIES OF OXYGEN-ADSORPTION ON GAAS(110) SURFACES WITH ULTRATHIN ALUMINUM AND CESIUM OVERLAYERS *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY***  
SKEATH, P., Su, C. Y., CHYE, P. W., Pianetta, P., LINDAU, I., SPICER, W. E.  
1979; 16 (5): 1439-1442
- **AD-ATOM INTERACTIONS WITH III-V-SEMICONDUCTOR SURFACES *JOURNAL OF ELECTRON SPECTROSCOPY AND RELATED PHENOMENA***  
LINDAU, I., SPICER, W. E., Pianetta, P., CHYE, P. W., Garner, C. M.  
1979; 15 (JAN): 197-200
- **PHOTOEMISSION-STUDIES OF THE INITIAL-STAGES OF OXIDATION OF GASB AND INP *SURFACE SCIENCE***  
CHYE, P. W., Su, C. Y., LINDAU, I., Garner, C. M., Pianetta, P., SPICER, W. E.  
1979; 88 (2-3): 439-460
- **EXTENDED-X-RAY-ABSORPTION-FINE-STRUCTURE STUDIES OF LOW-Z ATOMS IN SOLIDS AND ON SURFACES - STUDIES OF SI<sub>3</sub>N<sub>4</sub>, SiO<sub>2</sub>, AND OXYGEN ON SI(111) *PHYSICAL REVIEW B***  
Stohr, J., Johansson, L., LINDAU, I., Pianetta, P.  
1979; 20 (2): 664-680
- **OXYGEN-ADSORPTION ON CS COVERED GAAS(110) SURFACES *SURFACE SCIENCE***  
Su, C. Y., CHYE, P. W., Pianetta, P., LINDAU, I., SPICER, W. E.  
1979; 86 (JUL): 894-899
- **FUNDAMENTAL-STUDIES OF III-V SURFACES AND THE (III-V)-OXIDE INTERFACE *THIN SOLID FILMS***  
SPICER, W. E., LINDAU, I., Pianetta, P., CHYE, P. W., Garner, C. M.  
1979; 56 (1-2): 1-18



- **STUDY OF P(2X2)-S OVERLAYERS ON CU (100) BY POLARIZATION-DEPENDENT ANGULARLY RESOLVED ULTRAVIOLET PHOTOEMISSION SPECTROSCOPY (ARUPS)**  
LING, D. T., Pianetta, P. A., Johansson, L. I., LINDAU, I., SPICER, W. E.  
AMER INST PHYSICS.1979: 337-37
- **PHOTOEMISSION-STUDY OF THE SILICON-GOLD INTERFACE**  
Braicovich, L., SKEATH, P. R., LINDAU, I., CHYE, P. W., Su, C. Y., SPICER, W. E.  
AMER INST PHYSICS.1979: 248-48
- **ELECTRON-SPECTROSCOPIC STUDIES OF THE EARLY STAGES OF THE OXIDATION OF SI** *PHYSICAL REVIEW B*  
Garner, C. M., LINDAU, I., Su, C. Y., Pianetta, P., SPICER, W. E.  
1979; 19 (8): 3944-3956
- **SURFACE ELECTRONIC-STRUCTURE OF 3-5 COMPOUNDS AND THE MECHANISM OF FERMI LEVEL PINNING BY OXYGEN (PASSIVATION) AND METALS (SCHOTTKY BARRIERS)** *SURFACE SCIENCE*  
SPICER, W. E., CHYE, P. W., Garner, C. M., LINDAU, I., Pianetta, P.  
1979; 86 (JUL): 763-788
- **ADSORPTION STATES OF OXYGEN ON SILICON**  
Garner, C. M., LINDAU, I., Su, C. Y., Pianetta, P., SPICER, W. E.  
AMER INST PHYSICS.1978: 33-33
- **NEW PHENOMENA IN SCHOTTKY-BARRIER FORMATION ON III-V-COMPOUNDS** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY*  
LINDAU, I., CHYE, P. W., Garner, C. M., Pianetta, P., Su, C. Y., SPICER, W. E.  
1978; 15 (4): 1332-1339
- **UPS AND LEED STUDIES OF GAAS (110) AND (111) AS SURFACES** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY*  
SKEATH, P., SAPERSTEIN, W. A., Pianetta, P., LINDAU, I., SPICER, W. E., Mark, P.  
1978; 15 (4): 1219-1222
- **NEW METHOD FOR SCHOTTKY-BARRIER FORMATION**  
LINDAU, I., CHYE, P. W., Pianetta, P., Garner, C. M., Su, C. Y., SPICER, W. E.  
AMER INST PHYSICS.1978: 400-401
- **OXYGEN-ADSORPTION AND SURFACE ELECTRONIC-STRUCTURE OF GAAS (110)** *JOURNAL OF ELECTRON SPECTROSCOPY AND RELATED PHENOMENA*  
LINDAU, I., Pianetta, P., SPICER, W. E., Gregory, P. E., Garner, C. M., CHYE, P. W.  
1978; 13 (3): 155-160
- **VALENCE BAND STUDIES OF CLEAN AND OXYGEN EXPOSED GAAS(110) SURFACES** *SURFACE SCIENCE*  
Pianetta, P., LINDAU, I., Gregory, P. E., Garner, C. M., SPICER, W. E.  
1978; 72 (2): 298-320
- **AUGER PROFILING STUDIES OF LPE N-ALXGAL-XAS-N GAAS HETEROJUNCTIONS AND ABSENCE OF RECTIFICATION**  
Garner, C. M., Shen, Y. D., Su, C. Y., Pearson, G. L., SPICER, W. E.  
AMER INST PHYSICS.1978: 31-31
- **ADSORPTION OF OXYGEN ON CU(100) - STUDY BY ANGULARLY RESOLVED ULTRAVIOLET PHOTOEMISSION SPECTROSCOPY (ARUPS)**  
LING, D. T., Miller, J. N., Pianetta, P. A., WEISSMAN, D. L., LINDAU, I., SPICER, W. E.  
AMER INST PHYSICS.1978: 495-96
- **NEW PHENOMENON IN ABSORPTION OF OXYGEN ON SILICON** *PHYSICAL REVIEW LETTERS*  
Garner, C. M., LINDAU, I., Su, C. Y., Pianetta, P., Miller, J. N., SPICER, W. E.  
1978; 40 (6): 403-406
- **BONDING STATES OF OXYGEN ON SILICON**  
Garner, C. M., LINDAU, I., Su, C. Y., Pianetta, P., SPICER, W. E.  
AMER INST PHYSICS.1978: 1290-91



- **PHOTOEMISSION STUDY OF AU SCHOTTKY-BARRIER FORMATION ON GASB, GAAS, AND INP USING SYNCHROTRON RADIATION** *PHYSICAL REVIEW B*  
CHYE, P. W., LINDAU, I., Pianetta, P., Garner, C. M., Su, C. Y., SPICER, W. E.  
1978; 18 (10): 5545-5559
- **SURFACE-CHEMISTRY OF ALUMINUM ADSORBED ON SI(111)**  
Pianetta, P., LINDAU, I., Garner, C. M., SPICER, W. E.  
AMER INST PHYSICS.1978: 399-99
- **MECHANISM OF SCHOTTKY-BARRIER PINNING ON 3-5 SEMICONDUCTORS**  
SPICER, W. E., LINDAU, I., Chye, P., Su, C. Y., Pianetta, P., Garner, C. M.  
IEEE-INST ELECTRICAL ELECTRONICS ENGINEERS INC.1978: 1360-61
- **CHEMISORPTION AND OXIDATION STUDIES OF (110) SURFACES OF GAAS, GASB, AND INP** *PHYSICAL REVIEW B*  
Pianetta, P., LINDAU, I., Garner, C. M., SPICER, W. E.  
1978; 18 (6): 2792-2806
- **X-RAY OPTICS AND MONOCHROMATORS .5. PHASE SPACE ANALYSIS APPLIED TO X-RAY OPTICS** *NUCLEAR INSTRUMENTS & METHODS*  
Pianetta, P., LINDAU, I.  
1978; 152 (1): 155-159
- **CORE-LEVEL PHOTOEMISSION OF CS-O ADLAYER OF NEA GAAS CATHODES** *APPLIED PHYSICS LETTERS*  
SPICER, W. E., LINDAU, I., Su, C. Y., CHYE, P. W., Pianetta, P.  
1978; 33 (11): 934-935
- **EVIDENCE FOR A NEW TYPE OF METAL-SEMICONDUCTOR INTERACTION ON GASB** *PHYSICAL REVIEW B*  
CHYE, P. W., LINDAU, I., Pianetta, P., Garner, C. M., SPICER, W. E.  
1978; 17 (6): 2682-2684
- **OXYGEN SORPTION AND EXCITONIC EFFECTS ON GAAS SURFACES** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY*  
CHYE, P. W., Pianetta, P., LINDAU, I., SPICER, W. E.  
1977; 14 (4): 917-919
- **COMPARISON OF LEED INTENSITY DATA FROM CHEMICALLY POLISHED AND CLEAVED GAAS(110)SURFACES** *SURFACE SCIENCE*  
Mark, P., Pianetta, P., LINDAU, I., SPICER, W. E.  
1977; 69 (2): 735-740
- **PHOTOEMISSION STUDIES OF OXIDATION OF GASB AND INP**  
CHYE, P. W., LINDAU, I., Garner, C. M., Pianetta, P., SPICER, W. E.  
AMER INST PHYSICS.1977: 420-20
- **OXIDATION PROPERTIES OF GAAS (110) SURFACES - REPLY** *PHYSICAL REVIEW B*  
Pianetta, P., LINDAU, I., Garner, C. M., SPICER, W. E.  
1977; 16 (12): 5600-5602
- **SURFACE AND INTERFACE STATES ON GAAS(110) - EFFECTS OF ATOMIC AND ELECTRONIC REARRANGEMENTS)** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY*  
SPICER, W. E., Pianetta, P., LINDAU, I., CHYE, P. W.  
1977; 14 (4): 885-893
- **PHOTOEMISSION STUDIES OF SURFACE ELECTRONIC-STRUCTURE OF SI (111) AND OXYGEN-CHEMISORPTION**  
Garner, C. M., LINDAU, I., Miller, J. N., Pianetta, P., SPICER, W. E.  
AMER INST PHYSICS.1977: 433-33
- **CORE LEVEL (SI 2P) SHIFTS FOR OXYGEN-CHEMISORPTION ON SI (111)**  
Garner, C. M., Miller, J. N., LINDAU, I., Pianetta, P., SPICER, W. E.  
AMER INST PHYSICS.1977: 418-18
- **HIGH-RESOLUTION X-RAY SPECTROSCOPY USING SYNCHROTRON RADIATION - SOURCE CHARACTERISTICS AND OPTICAL SYSTEMS** *JOURNAL OF ELECTRON SPECTROSCOPY AND RELATED PHENOMENA*

- Pianetta, P., LINDAU, I.  
1977; 11 (1): 13-38
- **AUGER PROFILING OF ALXGA1-XAS-GAAS HETEROJUNCTIONS GROWN BY LPE**  
Garner, C. M., Shen, Y. D., Pearson, G. L., SPICER, W. E.  
AMER INST PHYSICS.1977: 293-93
  - **PHOTOEMISSION STUDIES OF SURFACE-STATES AND OXIDATION OF GROUP-IV SEMICONDUCTORS** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY*  
Garner, C. M., LINDAU, I., Miller, J. N., Pianetta, P., SPICER, W. E.  
1977; 14 (1): 372-375
  - **DO AU 5D-BANDS NARROW AT SURFACE - COMPARISON WITH AU ALLOYS** *PHYSICS LETTERS A*  
CHYE, P. W., LINDAU, I., Pianetta, P., Garner, C. M., SPICER, W. E.  
1977; 63 (3): 387-389
  - **STUDIES OF SURFACE ELECTRONIC-STRUCTURE AND SURFACE-CHEMISTRY USING SYNCHROTRON RADIATION** *PHYSICA SCRIPTA*  
SPICER, W. E., LINDAU, I., Miller, J. N., LING, D. T., Pianetta, P., CHYE, P. W., Garner, C. M.  
1977; 16 (5-6): 388-397
  - **PHOTOEMISSION STUDIES OF ELECTRONIC-STRUCTURE OF 3-5 SEMICONDUCTOR SURFACES** *SURFACE SCIENCE*  
LINDAU, I., Pianetta, P., Garner, C. M., CHYE, P. W., Gregory, P. E., SPICER, W. E.  
1977; 63 (1): 45-55
  - **PHOTOEMISSION STUDIES OF OXIDATION OF 3-4 SEMICONDUCTOR SURFACES BY USING SYNCHROTRON RADIATION**  
Pianetta, P., LINDAU, I., SPICER, W. E.  
AMER CHEMICAL SOC.1976: 116-16
  - **PHOTOEMISSION STUDIES OF SEMICONDUCTOR SURFACES USING SYNCHROTRON RADIATION**  
LINDAU, I., Pianetta, P., Garner, C. M., Miller, J., SPICER, W. E.  
AMER INST PHYSICS.1976: 942-42
  - **PHOTOEMISSION STUDIES OF GASB SURFACE AND INTERFACE STATES**  
CHYE, P. W., LINDAU, I., Garner, C. M., Pianetta, P., SPICER, W. E.  
AMER INST PHYSICS.1976: 1313-13
  - **VALENCE BAND ELECTRONIC-STRUCTURE OF CLEAN AND OXIDIZED (110) SURFACES OF GAAS, GASB AND INP**  
Chye, P., Pianetta, P., LINDAU, I., Garner, C., Gregory, P., SPICER, W. E.  
AMER INST PHYSICS.1976: 321-21
  - **PHOTOIONIZATION CROSS-SECTIONS OF 3D AND 4D LEVELS MEASURED BY PHOTOEMISSION TECHNIQUE**  
LINDAU, I., Pianetta, P., SPICER, W. E.  
AMER INST PHYSICS.1976: 417-17
  - **SYNCHROTRON RADIATION STUDIES OF ELECTRONIC-STRUCTURE AND SURFACE-CHEMISTRY OF GAAS, GASB, AND INP** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY*  
SPICER, W. E., LINDAU, I., Gregory, P. E., Garner, C. M., Pianetta, P., CHYE, P. W.  
1976; 13 (4): 780-785
  - **FERMI LEVEL POSITION IN N-TYPE GAAS(110) AND GASB(110)**  
Gregory, P., Chye, P., Pianetta, P., LINDAU, I., SPICER, W. E.  
AMER INST PHYSICS.1976: 319-19
  - **DETERMINATION OF ESCAPE DEPTH OF PHOTOEMITTED ELECTRONS IN GOLD IN ENERGY-RANGE 25-75 EV BY USE OF SYNCHROTRON RADIATION** *JOURNAL OF ELECTRON SPECTROSCOPY AND RELATED PHENOMENA*  
LINDAU, I., Pianetta, P., Yu, K. Y., SPICER, W. E.  
1976; 8 (6): 487-491
  - **UPS STUDIES OF BONDING OF H<sub>2</sub>O<sub>2</sub>, CO, C<sub>2</sub>H<sub>4</sub> AND C<sub>2</sub>H<sub>2</sub> ON FE AND CU** *SURFACE SCIENCE*  
Yu, K. Y., SPICER, W. E., LINDAU, I., Pianetta, P., Lin, S. F.  
1976; 57 (1): 157-183

- **PHOTOEMISSION FROM SOME METALS AND SEMICONDUCTORS IN ENERGY-RANGE 5-350 EV** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY*  
LINDAU, I., Pianetta, P., Yu, K. Y., SPICER, W. E.  
1976; 13 (1): 269-272
- **OXIDATION PROPERTIES OF GAAS (110) SURFACES** *PHYSICAL REVIEW LETTERS*  
Pianetta, P., LINDAU, I., Garner, C. M., SPICER, W. E.  
1976; 37 (17): 1166-1169
- **OXIDATION OF GAAS(110) SURFACES - CORE LEVEL SPECTROSCOPY**  
Pianetta, P., LINDAU, I., Garner, C. M., SPICER, W. E.  
AMER INST PHYSICS.1976: 1313-14
- **PHOTOEMISSION STUDIES OF ADSORPTION OF O<sub>2</sub> AND OXIDATION OF CLEAVED SI**  
Garner, C. M., LINDAU, I., Miller, J. N., Pianetta, P., SPICER, W. E.  
AMER INST PHYSICS.1976: 1314-14
- **ENERGY-DEPENDENCE OF 4D PHOTOIONIZATION CROSS-SECTION OF IN AND SB** *PHYSICS LETTERS A*  
LINDAU, I., Pianetta, P., SPICER, W. E.  
1976; 57 (3): 225-226
- **RELATIONSHIP OF HEAT OF CHEMISORPTION TO PI-LEVEL AND SIGMA-LEVEL SHIFTS AS MEASURED BY PHOTOEMISSION** *JOURNAL OF VACUUM SCIENCE & TECHNOLOGY*  
Yu, K. Y., SPICER, W. E., LINDAU, I., Pianetta, P., Lin, S. F.  
1976; 13 (1): 277-279
- **OXYGEN BONDING SITE ON GAAS, GASB AND INP (110) SURFACES**  
Pianetta, P., LINDAU, I., Garner, C., SPICER, W. E.  
AMER INST PHYSICS.1976: 320-21
- **PHOTOEMISSION OF GOLD IN ENERGY-RANGE 30-3000 EV USING SYNCHROTRON RADIATION** *PHYSICAL REVIEW B*  
LINDAU, I., Pianetta, P., Yu, K. Y., SPICER, W. E.  
1976; 13 (2): 492-495
- **PHOTOEMISSION STUDIES OF GOLD IN WAVELENGTH REGION 30-300 EV**  
LINDAU, I., Pianetta, P., Yu, K., SPICER, W. E.  
AMER INST PHYSICS.1975: 475-75
- **INTRINSIC LINEWIDTH OF 4F LEVELS IN GOLD AS DETERMINED BY PHOTOEMISSION** *PHYSICS LETTERS A*  
LINDAU, I., Pianetta, P., Yu, K., SPICER, W. E.  
1975; 54 (1): 47-48
- **DETERMINATION OF OXYGEN BINDING-SITE ON GAAS(110) USING SOFT-X-RAY-PHOTOEMISSION SPECTROSCOPY** *PHYSICAL REVIEW LETTERS*  
Pianetta, P., LINDAU, I., Garner, C., SPICER, W. E.  
1975; 35 (20): 1356-1359
- **VACUUM ULTRAVIOLET SYNCHROTRON RADIATION FROM SPEAR**  
REHN, V., BAER, A. D., KYSER, D. S., Stanford, J. L., Yu, K., LINDAU, I., Pianetta, P., SPICER, W. E.  
AMER INST PHYSICS.1975: 419-19
- **SHORT-RANGE PROBE FOR INVESTIGATING METALLOPROTEIN STRUCTURES - FOURIER-ANALYSIS OF EXTENDED X-RAY ABSORPTION FINE-STRUCTURE**  
Sayers, D. E., Lytle, F. W., Weissbluth, M., Pianetta, P.  
AMER INST PHYSICS.1975: 317-17
- **ULTRAVIOLET PHOTOEMISSION STUDIES OF O<sub>2</sub>, CO, C<sub>2</sub>H<sub>2</sub> AND C<sub>2</sub>H<sub>4</sub> CHEMISORBED ON COPPER**  
Yu, K., LINDAU, I., Pianetta, P., SPICER, W. E.  
AMER INST PHYSICS.1975: 359-59

- **SHORT-RANGE PROBE FOR INVESTIGATING METALLOPROTEIN STRUCTURES - FOURIER-ANALYSIS OF EXTENDED X-RAY ABSORPTION FINE-STRUCTURE** *JOURNAL OF CHEMICAL PHYSICS*

Sayers, D. E., Lytle, F. W., Weissbluth, M., Pianetta, P.  
1975; 62 (6): 2514-2515

- **X-RAY PHOTOEMISSION SPECTROSCOPY** *NATURE*

LINDAU, I., Pianetta, P., Doniach, S., SPICER, W. E.  
1974; 250 (5463): 214-215

- **ANTIFERROMAGNETIC LINEAR CHAINS IN CRYSTALLINE FREE-RADICAL BDPA** *JOURNAL OF CHEMICAL PHYSICS*

DUFFY, W., DUBACH, J. F., DECK, J. F., STRANDBU.DL.,, MIEDEMA, A. R., PIANETTA, A.  
1972; 56 (6): 2555-&