Metals and Alloys

1. Positron simulations of defects in tungsten containing hydrogen and helium
T. Troev, E. Popov, P. Staikov, N. Nankov, T. Yoshiie
Nucl. Instrum. and Meth. B **In Press, Corrected Proof**, December 2008

2. Positron annihilation in vacancies at grain boundaries in metals
J. Kuriplach, O. Melikhova, M. Hou, S. Van Petegem, E. Zhurkin, M. Šob
Appl. Surf. Sci. **255**, 128 (2008).

3. Study of the surface contamination of copper with the improved positron annihilation-induced Auger electron spectrometer at NEPOMUC
J. Mayer, C. Hugenschmidt, K. Schreckenbach
Appl. Surf. Sci. **255**, 220 (2008).

4. Secondary electron spectra of gold under bombardment by very low-energy positrons
S. Mukherjee, M.P. Nadesalingam, Paul Guagliardo, A.D. Sergeant, J.F. Williams, A.H. Weiss
Appl. Surf. Sci. **255**, 223 (2008).

5. Behavior of adsorbed hydrogen on Ni(1 1 1) surface with reemitted slow-positron spectroscopy
S. Komagata, K. Hirota, H. Suzuki, M. Osawa, S. Arii, I. Kanazawa, K. Fukutani, K. Nozawa, F. Komori
Appl. Surf. Sci. **255**, 227 (2008).

6. Hydrogen-induced buckling of Pd films studied by positron annihilation
J. Čížek, I. Procházka, M. Vlach, N. Žaludová, S. Daniš, P. Dobroň, F. Chmelík, G. Brauer, W. Anwand, A. Mücklich, E. Nikitin, R. Gemma, R. Kirchheim, A. Pundt
Appl. Surf. Sci. **255**, 241 (2008).

7. Behavior of the reemitted slow positron on hydrogen-adsorbed Ni (1 1 1) surface
K. Hirota, S. Komagata, S. Arii, I. Kanazawa, K. Fukutani, K. Nozawa, F. Komori
Appl. Surf. Sci. **254**, 7989 (2008).

8. Room-temperature microstructural evolution of electroplated Cu studied by focused ion beam and positron annihilation lifetime spectroscopy
K. B. Yin *et al.*
J. Appl. Phys. **103** 066103 (2008).

9. Size-dependent momentum smearing effect of positron annihilation radiation in embedded nano Cu clusters
Z Tang, T Toyama, Y Nagai, K Inoue, Z Q Zhu and M Hasegawa
J. Phys.: Condens. Matter **20,** 445203 (2008).

10. Positron lifetime calculations of defects in fusion irradiated beryllium
N. Nankov, T. Troev, L. Petrov, E. Popov
Nuclear Instruments and Methods in Physics Research Section B: Beam Interactions with Materials and Atoms **266**, 3392 (2008).

11. Characterization of defect accumulation in neutron-irradiated Mo by positron annihilation spectroscopy
M. Eldrup, Meimei Li, L.L. Snead, S.J. Zinkle
Nucl. Instrum. and Meth. B **266**, 3602 (2008).

12. Depth resolved Doppler broadening measurement of layered Al–Sn samples
Philip Pikart, Christoph Hugenschmidt, Jakob Mayer, Martin Stadlbauer, Klaus Schreckenbach
Appl. Surf. Sci. **255**, 245 (2008).

13. High elemental selectivity to Sn submonolayers embedded in Al using positron annihilation spectroscopy

C. Hugenschmidt, P. Pikart, M. Stadlbauer, and K. Schreckenbach
Phys. Rev. B **77** 092105 (2008).

14. Study of Au–Pd core–shell nanoparticles by using slow positron beam
N. Taguchi, F. Hori, T. Iwai, A. Iwase, T. Akita, S. Tanaka
Appl. Surf. Sci. **255**,164 (2008).

15. Mechanical strain characteristics of cold worked $Fe_{72}Al_{28}$ and $Fe_{75}Ni_{25}$ alloys: A positron annihilation coincidence Doppler broadening view
Brajesh Pandey, H.C. Verma
Intermetallics **16**, 440 (2008).

16. Simulation of positron annihilation response to mechanical deformation of nanostructured Ni_3Al
O. Melikhova, J. Kuriplach, I. Prochazka, J. Cizek, M. Hou, E. Zhurkin, S. Pisov
Appl. Surf. Sci. **255**, 157 (2008).

17. 3D-AP and Positron Annihilation Study of Precipitation Behavior in Cu-Cr-Zr Alloy
M. Hatakeyama, T. Toyama, J. Yang, Y. Nagai, M. Hasegawa, M. Eldrup, B.N. Singh
J. Nucl. Mater., **In Press, Accepted Manuscript**, December 2008

18. The precipitation process in Mg–Ca–(Zn) alloys investigated by positron annihilation spectroscopy
Yanicet Ortega, Miguel Angel Monge, Ramiro Pareja
Journal of Alloys and Compounds **463**, 62 (2008).

19. Identification of lattice vacancies in the B2-phase region of Ni–Al system by positron annihilation
Lan-Zhi Zhang, Dan-Ni Wang, Bao-Yi Wang, Run-Sheng Yu, Long Wei
Journal of Alloys and Compounds **457**, 47 (2008).

20. Experimental and theoretical positron annihilation studies on bulk nickel silicides
S. Abhaya, R. Rajaraman, G. Amarendra
Appl. Surf. Sci. **255**, 142 (2008).

21. Positron beam studies of cobalt silicides
S. Abhaya, G. Amarendra
Appl. Surf. Sci. **255**, 237 (2008).

22. A study of defects in deformed FeSi alloys using positron annihilation techniques
Khaled M. Mostafa, J. De Baerdemaeker, Pablo R. Calvillo, Y. Houbaert, D. Segers
Appl. Surf. Sci. **255**, 149 (2008).

23. Atomic transfer through interfacial free volumes in $Sn_{65.4}Bi_{34.6}$ eutectic systems
K Sato, H Murakami, K Fujimoto, M Nakata, T Oka and Y Kobayashi
J. Phys.: Condens. Matter **20,** 395234 (2008).

Reactor materials

1. Positron annihilation study of neutron irradiated model alloys and of a reactor pressure vessel steel
M. Lambrecht, A. Almazouzi
J. Nucl. Mater., **In Press, Corrected Proof**, December 2008

2. Defect recovery in proton irradiated Ti-modified stainless steel probed by positron annihilation
J. Arunkumar, S. Abhaya, R. Rajaraman, G. Amarendra, K.G.M. Nair, C.S. Sundar, Baldev Raj
J. Nucl. Mater., **In Press, Corrected Proof** November 2008

3. Positron beam studies of void swelling in ion irradiated Ti-modified stainless steel
G. Amarendra, B.K. Panigrahi, S. Abhaya, Christopher David, R. Rajaraman, K.G.M. Nair, C.S. Sundar, Baldev Raj
Appl. Surf. Sci. **255**, 139 (2008).

4. Study of the effect of annealing on defects in Fe–Mn–Si–Cr–Ni–C alloy by slow positron beam
Khaled. M. Mostafa, J. De Baerdemaeker, N. Van Caenegem, D. Segers, Y. Houbaert
Appl. Surf. Sci. **255**, 145 (2008).

5. Application of positron annihilation spectroscopy on the ion implantation damaged Fe–Cr alloys
Vladimír Kršjak, Vladimír Slugeň, Marek Mikloš, Martin Petriska, Peter Ballo
Appl. Surf. Sci. **255**, 153 (2008).

6. Positron annihilation study of the micro-defects induced by cavitation in mild steel
Ming Zhao, Jiadao Wang, Darong Chen, Xiaopeng Hao, Baoyi Wang
Physica B: Condensed Matter **403**, 2594 (2008).

7. Positron annihilation characteristics of ODS and non-ODS EUROFER isochronally annealed
Y. Ortega, V. de Castro, M.A. Monge, A. Muñoz, T. Leguey, R. Pareja
J. Nucl. Mater. **376**, 222 (2008).

8. Positron Annihilation Lifetime Measurements of Vanadium Alloy and F82H Irradiated with Fission and Fusion Neutrons
K. Sato, K. Inoue, T. Yoshiie, Q. Xu, E. Wakai, C. Kutsukake, K. Ochiai
J. Nucl. Mater. **In Press, Accepted Manuscript**, December 2008.

9. Identification of ultra-fine Ti-rich precipitates in V–Cr–Ti alloys irradiated below 300 °C by using positron CDB technique
Ken-ichi Fukumoto, Hideki Matsui, Hideaki Ohkubo, Zheng Tang, Yasuyoshi Nagai and, Masayuki Hasegawa
J. Nucl. Mater. **373**, 289 (2008).

Semiconductors

1. Useful vacancies: Positron beam interrogation of fluorine-vacancy complexes in semiconductor device structures
P.G. Coleman, D.A. Abdulmalik
Appl. Surf. Sci. **255**, 71 (2008).

2. Temperature-dependent growth and transient state of hydrogen-induced nanocavities in silicon
A. Kinomura, R. Suzuki, T. Ohdaira, M. Muramatsu, C. He, N. Oshima, T. Matsumoto, H. Tanoue, and Y. Horino
J. Appl. Phys. **104** 034301 (2008).

3. Activation Energies for the Formation and Evaporation of Vacancy Clusters in Silicon
D. A. Abdulmalik and P. G. Coleman
Phys. Rev. Lett. **100** 095503 (2008).

4. He implantation to control B diffusion in crystalline and preamorphized Si
E. Bruno, S. Mirabella, F. Priolo, K. Kuitunen, F. Tuomisto, J. Slotte, F. Giannazzo, C. Bongiorno, V. Raineri, and E. Napolitani
J. Vac. Sci. Technol. B **26** 386 (2008).

5. Observation of vacancy defects at silicon grain boundaries formed via suppressed solid phase epitaxy
K J Dudeck, W D Walters, A P Knights and P G Coleman
J. Phys. D: Appl. Phys. **41,** 055102 (2008).

6. Implantation-caused open volume defects in Ge after flash lamp annealing (FLA) probed by slow positron implantation spectroscopy (SPIS)
W. Anwand, W. Skorupa, Th. Schumann, M. Posselt, B. Schmidt, R. Grötzschel, G. Brauer
Appl. Surf. Sci. **255**, 81 (2008).

7. Divacancy clustering in neutron-irradiated and annealed *n*-type germanium
K. Kuitunen, F. Tuomisto, J. Slotte, and I. Capan
Phys. Rev. B **78** 033202 (2008).

8. Evolution of vacancy-related defects upon annealing of ion-implanted germanium
J. Slotte, M. Rummukainen, F. Tuomisto, V. P. Markevich, A. R. Peaker, C. Jeynes, and R. M. Gwilliam
Phys. Rev. B **78** 085202 (2008).

Compound Semiconductors

1. Characterization of bulk AlN crystals with positron annihilation spectroscopy
F. Tuomisto, J.-M. Mäki, T.Yu. Chemekova, Yu.N. Makarov, O.V. Avdeev, E.N. Mokhov, A.S. Segal, M.G. Ramm, S. Davis, G. Huminic, H. Helava, M. Bickermann, B.M. Epelbaum
Journal of Crystal Growth **310,** 3998 (2008).

2. Investigation of vacancy defect in InP crystal by positron lifetime measurement
Niefeng Sun, Luhong Mao, Weidong Mao, Hezou Wang, Xiang Wu, Keyun Bi, Zhengping Zhao, Weilian Guo, Xiawan Wu, Xiaolong Zhou, Bingke Chen, Yanjun Zhao, Kewu Yang, Tongnian Sun
Journal of Physics and Chemistry of Solids **69**, 372 (2008).

3. Investigation on the structural origin of n-type conductivity in InN films
H Wang, D S Jiang, L L Wang, X Sun, W B Liu, D G Zhao, J J Zhu, Z S Liu, Y T Wang, S M Zhang and H Yang
J. Phys. D: Appl. Phys. **41,** 135403 (2008).

4. Positron Trapping Sites Originating from Oxide Interfaces on 4H-SiC C($000\bar{1}$)- and Si(0001)-Faces
Atsushi Kinomura, Ryoichi Suzuki, Nagayasu Oshima, Toshiyuki Ohdaira, Shinsuke Harada, Makoto Kato, Yasunori Tanaka, Akimasa Kinoshita, and Kenji Fukuda
Jpn. J. Appl. Phys., Part 1 **47** 8391 (2008).

5. Vacancy-type defects in 6H–silicon carbide induced by He-implantation: a positron annihilation spectroscopy approach
C Y Zhu, C C Ling, G Brauer, W Anwand and W Skorupa
J. Phys. D: Appl. Phys. **41,** 195304 (2008).

6. The effect of the positron distribution and electron–positron correlations on the electron–positron momentum density for SiC
Anna Rubaszek
J. Phys.: Condens. Matter **20,** 335226 (2008).

7. Vacancy generation during Cu diffusion in GaAs
M. Elsayed, V. Bondarenko, K. Petters, J. Gebauer, and R. Krause-Rehberg
J. Appl. Phys. **104** 103526 (2008).

8. Microstructural evolution in H ion induced splitting of freestanding GaN
O. Moutanabbir, R. Scholz, S. Senz, U. Gösele, M. Chicoine, F. Schiettekatte, F. Süßkraut, and R. Krause-Rehberg
Appl. Phys. Lett. **93**, 031916 (2008).

9. Vacancy-type defects in Er-doped GaN studied by a monoenergetic positron beam A. Uedono, C. Shaoqiang, S. Jongwon, K. Ito, H. Nakamori, N. Honda, S. Tomita, K. Akimoto, H.

Kudo, and S. Ishibashi
J. Appl. Phys. **103** 104505 (2008).

10. Defect and emission distributions in bulk GaN grown in polar and nonpolar directions: a comparative analysis
T. Paskova *et al.*
Proc. SPIE **6894** 68940D (2008).

11. Mn^{2+}-induced substitutional structural changes in ZnS nanoparticles as observed from positron annihilation studies
Subhajit Biswas, Soumitra Kar, Subhadra Chaudhuri and P M G Nambissan
J. Phys.: Condens. Matter **20,** 235226 (2008).

12. Structural, optical, electrical and positron annihilation studies of CdS:Fe system
Balram Tripathi, F. Singh, D.K. Avasthi, A.K. Bhati, D. Das, Y.K. Vijay
Journal of Alloys and Compounds **454**, 97 (2008).

13. Defect studies of ZnSe nanowires
U Philipose, Ankur Saxena, Harry E Ruda, P J Simpson, Y Q Wang and K L Kavanagh
Nanotechnology **19,** 215715 (2008).

14. Mechanisms of electrical isolation in O^+-irradiated ZnO
A. Zubiaga, F. Tuomisto, V. A. Coleman, H. H. Tan, C. Jagadish, K. Koike, S. Sasa, M. Inoue, and M. Yano
Phys. Rev. B **78** 035125 (2008).

15. Defect studies of ZnO single crystals electrochemically doped with hydrogen
J. Čížek *et al.*
J. Appl. Phys. **103** 053508 (2008).

16. Vacancy clustering and acceptor activation in nitrogen-implanted ZnO
Thomas Moe Børseth, Filip Tuomisto, Jens S. Christensen, Edouard V. Monakhov, Bengt G. Svensson, and Andrej Yu. Kuznetsov
Phys. Rev. B **77** 045204 (2008).

17. Positron annihilation spectroscopic studies of solvothermally synthesized ZnO nanobipyramids and nanoparticles
Tandra Ghoshal, Subhajit Biswas, Soumitra Kar, Subhadra Chaudhuri, and P. M. G. Nambissan
J. Chem. Phys. **128** 074702 (2008).

18. Defect studies in annealed ZnO by positron annihilation spectroscopy
D Sanyal, Tapatee Kundu Roy, Mahuya Chakrabarti, Siddhartha Dechoudhury, Debasis Bhowmick and Alok Chakrabarti
J. Phys.: Condens. Matter **20,** 045217 (2008).

19. Influence of Dopants in ZnO Films on Defects
Peng Cheng-Xiao, Weng Hui-Min, Zhang Yang, Ma Xing-Ping and Ye Bang-Jiao
Chinese Phys. Lett. **25,** 4442 (2008).

Insulators & Glasses

1. Application of spectroscopy and positron annihilation methods in studies of the gel-glasses materials
J. Legendziewicz, M. Guzik, J. Gliński, K. Jerie, A. Baranowski, A. Kochel
Journal of Alloys and Compounds **451**, 172 (2008).

2. Positron annihilation response and viscosity of a glass-forming system within the two-order parameter model of liquids
J Bartoš
J. Phys.: Condens. Matter **20,** 285101 (2008).

3. Defects in electron irradiated boron-doped diamonds investigated by positron annihilation and optical absorption
S Dannefaer and K Iakoubovskii
J. Phys.: Condens. Matter **20,** 235225 (2008).

4. A positron annihilation study on the defect properties of doped diamond films
X.J. Hu, J.S. Ye, H.J. Liu, S. Mariazzi, R.S. Brusa
Thin Solid Films **516**, 1699 (2008).

Oxides

1. Interlaboratory comparison of positron annihilation lifetime measurements for synthetic fused silica and polycarbonate
Kenji Ito *et al.*
J. Appl. Phys. **104** 026102 (2008).

2. Positronium reemission yield from mesostructured silica films
L. Liszkay *et al.*
Appl. Phys. Lett. **92**, 063114 (2008).

3. Evolution of Structural Defects in SiO_x Films Fabricated by Electron Cyclotron Resonance Plasma Chemical Vapour Deposition upon Annealing Treatment
Hao Xiao-Peng, Wang Bao-Yi, Yu Run-Sheng, Wei Long, Wang Hui, Zhao De-Gang and Hao Wei-Chang
Chinese Phys. Lett. **25,** 1034 (2008).

4. A study of positronium formation in anodic alumina
N Djourelov, C A Palacio, J De Baerdemaeker, C Bas, N Charvin, K Delendik, G Drobychev, D Sillou, O Voitik and S Gninenko
J. Phys.: Condens. Matter **20,** 095206 (2008).

5. Capillary condensation in porous alumina observed by positronium lifetime spectroscopy
Eugeniu Ivanov, Ion Vata, Stefan Toderian, Dorin Dudu, Ion Rusen, Nitisor Stefan
Appl. Surf. Sci. **255**, 194 (2008).

Polymers

1. Effect of oxygen on gamma irradiation of polypropylenes studied by positron annihilation spectroscopy
Z. Chen, W. Huang, P.F. Fang, H.M. Wang, S.J. Wang, J. Xiong, Y.S. Xu
Nucl. Instrum. and Meth. B **266**, 117 (2008).

2. Positron lifetime studies of the dose dependence of nanohole free volumes in ion-irradiated conducting poly-(ethylene-oxide)–salt polymers
Rajesh Kumar, Udayan De, P.M.G. Nambissan, M. Maitra, S. Asad Ali, T.R. Middya, S. Tarafdar, F. Singh, D.K. Avasthi, Rajendra Prasad
Nucl. Instrum. and Meth. B **266**, 1783 (2008).

3. Annihilation characteristics of positrons in free-standing thin metal and polymer films
A. Uedono, K. Ito, H. Nakamori, S. Ata, T. Ougizawa, K. Ito, Y. Kobayashi, X. Cao, T. Kurihara, N. Oshima, T. Ohdaira, R. Suzuki, T. Akahane, M. Doyama, K. Matsuya, S. Jinno, M. Fujinami
Nucl. Instrum. and Meth. B **266**, 750 (2008).

4. Investigation of free volume and the interfacial, and toughening behavior for epoxy resin/rubber composites by positron annihilation
Zeng Minfeng, Sun Xudong, Xiao Huiquan, Ji Genzhong, Jiang Xuewen, Wang Baoyi, Qi Chenze
Radiation Physics and Chemistry **77**, 245 (2008).

5. Detection of free volumes in polyaniline complexes with various acids by using positron lifetime spectroscopy

L. Terlemezyan, P. Mokreva, D. Tsocheva, S. Peneva, K. Berovsky, T. Troev
Radiation Physics and Chemistry **77**, 591 (2008).

6. Positron beam studies on polyaniline and Ag-coated polyaniline
J.B.M. Krishna, S. Abhaya, G. Amarendra, C.S. Sundar, Abhijit Saha, B. Ghosh
Appl. Surf. Sci. **255,** 248 (2008).

7. Electron irradiation induced microstructural modifications in $BaCl_2$ doped PVA: A positron annihilation study
A. Harisha, V. Ravindrachary, R.F. Bhajantri, Ismayil, Ganesh Sanjeev, Boja Poojary, Dhanadeep Dutta, P.K. Pujari
Polymer Degradation and Stability **93,** 1554 (2008).

8. Applications of positron annihilation spectroscopy to polymeric membranes
Y.C. Jean, Wei-Song Hung, Chia-Hao Lo, Hongmin Chen, Guang Liu, Lakshmi Chakka, Mei-Ling Cheng, D. Nanda, Kuo-Lun Tung, Shu-Hsien Huang, Kueir-Rarn Lee, Juin-Yih Lai, Yi-Ming Sun, Chien-Chieh Hu, Chang-Cheng Yu
Desalination, **234**, 89 (2008).

9. Polymeric membrane studied using slow positron beam
Wei-Song Hung, Chia-Hao Lo, Mei-Ling Cheng, Hongmin Chen, Guang Liu, Lakshmi Chakka, D. Nanda, Kuo-Lun Tung, Shu-Hsien Huang, Kueir-Rarn Lee, Juin-Yih Lai, Yi-Ming Sun, Chang-Cheng Yu, Renwu Zhang, Y.C. Jean
Appl. Surf. Sci. **255,** 201 (2008).

10. Positron annihilation study of pore size in ordered SBA-15
A. Sousa, K.C. Souza, S.C. Reis, R.G. Sousa, D. Windmöller, J.C. Machado, E.M.B. Sousa
Journal of Non-Crystalline Solids **354,** 4800 (2008).

11. **Studies of the *o*-Ps lifetime and free volume in ion irradiated Makrofol-KG polycarbonate by positron annihilation**
Rajesh Kumar, S.A. Ali, Udayan De, A.H. Naqvi, S.K. Chaudhary, D. Das, Rajendra Prasad
Radiation Measurements **43**, S578 (2008).

12. Novel method for stratum corneum pore size determination using positron annihilation lifetime spectroscopy
Yoshiaki Itoh, Akira Shimazu, Yasuyuki Sadzuka, Takashi Sonobe, Shigeru Itai
International Journal of Pharmaceutics **358**, 91 (2008).

13. Emission of positronium in a nanometric PMMA film
C.A. Palacio, J. De Baerdemaeker, D. Van Thourhout, C. Dauwe
Appl. Surf. Sci. **255**, 197 (2008).

14. Depth-dependent positronium formation in γ-irradiated polymers after 30-month aging
R.S. Yu, X.P. Hao, Y.Y. Ma, P. Wang, X.B. Qin, Z. Zhang, B.Y. Wang, L. Wei, T. Suzuki, Y. Ito, V.P. Shantarovich
Appl. Surf. Sci. **255**, 205 (2008).

15. Investigations of epoxy-based adhesives with PLEPS
W. Egger, P. Sperr, G. Kögel, M. Wetzel, H.-J. Gudladt
Appl. Surf. Sci. **255**, 209 (2008).

16. Determination of the positron diffusion length in Kapton by analysing the positronium emission
C.A. Palacio, J. De Baerdemaeker, C. Dauwe
Appl. Surf. Sci. **255**, 213 (2008).

Superconductors

1. Positron annihilation spectroscopy and specific heat study of Neon ion irradiated MgB_2
A. Talapatra, S.K. Bandyopadhyay, P.M.G. Nambissan, Pintu Sen, V. Ganesan

Physics Letters A **372**, 1521 (2008).

2. Direct observation of a Fermi surface and superconducting gap in $LuNi_2B_2C$
P. Starowicz *et al.*
Phys. Rev. B **77** 134520 (2008).

3. Ionic cluster effect in suppression of superconductivity in Ni- and Co-doped YBCO systems
A. Wang, X. Wang, Y. Cao, X. Li, Y. Wang, L. Gao, H. Lu, J. Zhang, and P. Li
Low Temp. Phys. **34** 168 (2008).

Theoretical studies

1. Energetics of positron states trapped at vacancies in solids
I. Makkonen and M. J. Puska
Appl. Surf. Sci. **255**, 21 (2008).

2. Positron potential and wave function in LaFeAsO
H. Takenaka and D. J. Singh
Phys. Rev. B **78** 052503 (2008).

3. Full-potential all-electron positron lifetime calculations: Assessment of local enhancement factors
H. Takenaka and D. J. Singh
Phys. Rev. B **77** 155132 (2008).

Techniques/Developmental works

1. GEANT4 simulation of slow positron beam implantation profiles
Jerzy Dryzek, Paweł Horodek
Nucl. Instrum. and Meth. B **266**, 4000 (2008).

2. Progress of the intense positron beam project EPOS
R. Krause-Rehberg, G. Brauer, M. Jungmann, A. Krille, A. Rogov, K. Noack
Appl. Surf. Sci. **255**, 22 (2008).

3. Surface and bulk investigations at the high intensity positron beam facility NEPOMUC
C. Hugenschmidt, G. Dollinger, W. Egger, G. Kögel, B. Löwe, J. Mayer, P. Pikart, C. Piochacz, R. Repper, K. Schreckenbach, P. Sperr, M. Stadlbauer
Appl. Surf. Sci. **255**, 29 (2008).

4. Construction of a positron microbeam in JAEA
Masaki Maekawa, Atsuo Kawasuso
Appl. Surf. Sci. **255**, 39 (2008).

5. Status of an R&D project of a positron gun at "Horia Hulubei" NIPNE Bucharest
Angela Vasilescu, L. Craciun, Ionica A. Ghita, O. Constantinescu, F. Constantin, Catalina Chiojdeanu, C.N. Zoita, A. Kiss, D. Bojin, P.M. Racolta
Appl. Surf. Sci. **255**, 46 (2008).

6. Transmission positron images using imaging plates
Masao Doyama, A. Kogure, M. Inoue, T. Kurihara, X. Cao, M. Matsuya, T. Yoshiie, Y. Hayashi, Q. Xu, M. Fujinami
Appl. Surf. Sci. **255**, 89 (2008).

7. Spin-polarization of an electro-static positron beam
A. Kawasuso, M. Maekawa
Appl. Surf. Sci. **255**, 108 (2008).

8. High-resolution positron lifetime measurement using ultra fast digitizers Acqiris DC211
F. Bečvář, J. Čížek, I. Procházka
Appl. Surf. Sci. **255**, 111 (2008).

9. Performance of the Beijing pulsed variable-energy positron beam
B.Y. Wang, Y.Y. Ma, Z. Zhang, R.S. Yu, P. Wang
Appl. Surf. Sci. **255**, 119 (2008).

10. A novel design for a variable energy positron lifetime spectrometer
D. Chen, J.D. Zhang, C.C. Cheng, C.D. Beling, S. Fung
Appl. Surf. Sci. **255**, 122 (2008).

11. A Magnetic Transport Middle Eastern Positron Beam
I.Y. Al-Qaradawi, D.T. Britton, R. Rajaraman, D. Abdulmalik
Appl. Surf. Sci. **255**, 125 (2008).

12. Design concept and modeling of a new Positron Identification by Coincident Annihilation Photons (PICAP) system
J.J. Connell, J.R. Kalainoff, C. Lopate
Nucl. Instrum. and Meth. A **593**, 431 (2008).

13. Unprecedented intensity of a low-energy positron beam
C. Hugenschmidt, B. Löwe, J. Mayer, C. Piochacz, P. Pikart, R. Repper, M. Stadlbauer, K. Schreckenbach
Nucl. Instrum. and Meth. A **593**, 616 (2008).

14. Positron emission particle tracking—Application and labelling techniques
David J. Parker, Xianfeng Fan
Particuology **6**, 16 (2008).

15. Scanning positron microscopy: Non-destructive imaging of plastic deformation in the micrometer range
M. Haaks
CIRP Annals - Manufacturing Technology **57**, 537 (2008).

16. Simulation Study on Time Resolution of γ-Ray Measurement Using Scintillator
Masato Yamawaki and Yousuke Katsumura
Jpn. J. Appl. Phys., Part 1 **47** 3666 (2008).

Moderators

1. Gas moderation of positrons
Benjamin Löwe, Klaus Schreckenbach, Christoph Hugenschmidt
Appl. Surf. Sci. **255**, 96 (2008).

2. A positron remoderator for the high intensity positron source NEPOMUC
Christian Piochacz, Gottfried Kögel, Werner Egger, Christoph Hugenschmidt, Jakob Mayer, Klaus Schreckenbach, Peter Sperr, Martin Stadlbauer, Günther Dollinger
Appl. Surf. Sci. **255**, 98 (2008).

Atomic Physics

1. Calculations for very low energy scattering of positrons by molecular hydrogen
J.N. Cooper, E.A.G. Armour
Nucl. Instrum. and Meth. B **266**, 452 (2008).

2. Dependence of resonant positron-molecule annihilation on molecular temperature
J.A. Young, C.M. Surko

Nucl. Instrum. and Meth. B **266**, 478 (2008).

3. Molecular model for annihilation rates in positron complexes
Denise Assafrão, H.R. James Walters, José R. Mohallem
Nucl. Instrum. and Meth. B **266**, 491 (2008).

4. Ionizing Collisions by Positrons and Positronium Impact on the Inert Atoms
G. Laricchia, S. Armitage, Á. Kövér, D.J. Murtagh
Advances In Atomic, Molecular, and Optical Physics **56**, 1 (2008). 2008,

Positronium physics

1. Application of positron beams to the study of positronium-forming solids
Y. Kobayashi, K. Ito, T. Oka, C. He, H.F.M. Mohamed, R. Suzuki, T. Ohdaira
Appl. Surf. Sci. **255**, 174 (2008).

2. Quantum beats in the 3γ annihilation decay of Positronium observed by perturbed angular distribution
Eugeniu Ivanov, Ion Vata, Dorin Dudu, Ion Rusen, Nitisor Stefan
Appl. Surf. Sci. **255**, 179 (2008).

3. Orthopositronium annihilation and emission in mesostructured thin silica and silicalite-1 films
L. Liszkay, M.-F. Barthe, C. Corbel, P. Crivelli, P. Desgardin, M. Etienne, T. Ohdaira, P. Perez, R. Suzuki, V. Valtchev, A. Walcarius
Appl. Surf. Sci. **255**, 187 (2008).

4. Formation and escaping of positronium in porous SiO_2 films at low temperature
S. Mariazzi, L. Toniutti, N. Patel, R.S. Brusa
Appl. Surf. Sci. **255**, 191 (2008).