MIKKO HAKALA

PUBLICATIONS 14.9.2016

Double asterisk (**) and boldface mark the ten most important publications.

A1 Peer-reviewed scientific articles

1. ** **Theoretical and experimental study of positron annihilation with core electrons in solids**,
   M. Alatalo, B. Barbiellini, M. Hakala, H. Kauppinen, T. Korhonen, M. J. Puska, K. Saarinen, P. Hautojärvi, and R. M. Nieminen, Phys. Rev. B. **54**, 2397 (1996). www

2. *Correlation effects for electron-positron momentum density in solids*,
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4. ** **Momentum distributions of electron-positron pairs annihilating at vacancy clusters in Si**,
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5. *Microscopic identification of native donor Ga-vacancy complexes in Te-doped GaAs*,
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9. *Theoretical studies of interstitial boron defects in silicon*,
   M. Hakala, M. J. Puska, R. M. Nieminen, Physica B **273-274**, 268 (1999).

10. ** **First-principles calculations of interstitial boron in silicon**,
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11. *Irradiation experiment revisited - Stability and positron lifetime of large vacancy clusters in silicon*,
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12. *Native defects and self-diffusion in GaSb*,
M. Hakala, M. J. Puska and R. M. Nieminen, J. Appl. Phys. **91**, 4988 (2002).

13. *Scattering effects in a positron lifetime beam line*,
A. Laakso, M. O. Hakala, A. Pelli, K. Rytsölä, and K. Saarinen, Mater. Sci. Forum. **445**, 489 (2004).

14. *Compton profiles for water and mixed water-neon clusters: A measure of coordination*,
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16. *Calculation of valence electron momentum densities using the projector augmented-wave method*,
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17. *Modeling the momentum distributions of annihilating electron-positron pairs in solids*,
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27. *Comparison of chain versus sheet crystal structures for the cyanides MCN (M=Cu-Au) and dicarbides MC_2 (M=Be-Ba,Zn-Hg)*,
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34. *Amorphous defect clusters of pure Si and type inversion in Si detectors*,
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41. *Inelastic x-ray scattering and vibrational effects at the K-edges of gaseous N_2, N_2O, and CO_2*,
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B3 Non-refereed scientific articles

1. *First-Principles Calculations of Positron Annihilation in Solids*,
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E1 Publications intended for the general public

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2. *Approach to Cold Heat-Storage Mechanism of Ice*, K. Hämäläinen, S. Manninen, K. Nygård, M. Hakala, M. Itou and Y. Sakurai, Press release, SPring-8, Japan, 8.11.2007.

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G Theses

1. Master's thesis: *Computational Scheme for Core-Electron Annihilation in Solids*, Helsinki University of Technology (1996)

2. Doctoral dissertation: *Defect Complexes in Silicon: Electronic Structures and Positron Annihilation*, Helsinki University of Technology (2001)