

PUBLICATIONS

Books:

1. N. Gonzalez Szwacki and T. Szwacka, "*Crystallography Made Simple*", in preparation, (Pan Stanford Publishing, 2009).
2. Y. Lin, N. Gonzalez Szwacki, and B. I. Yakobson, "*Quasi-one-dimensional silicon nanostructures*", in *Nanosilicon*, edited by V. Kumar (Elsevier, Amsterdam, 2007).

Papers in Refereed Journals:

1. N. Gonzalez Szwacki, M. Sanati, and S. K. Estreicher, "*Two FeH pairs in n-type Si and their implications: A theoretical study*", **Phys. Rev. B** **78**, 113202 (2008).
2. S. K. Estreicher, M. Sanati, and N. Gonzalez Szwacki, "*Iron in silicon: Interactions with radiation defects, carbon, and oxygen*", **Phys. Rev. B** **77**, 125214 (2008).
3. N. Gonzalez Szwacki, "*Boron Fullerenes: A First-Principles Study*", **Nanoscale Res. Lett.** **3**, 49 (2008).
4. M. Sanati, N. Gonzalez Szwacki, and S. K. Estreicher, "*Interstitial Fe in Si: Interactions with hydrogen and shallow dopants*", **Phys. Rev. B** **76**, 125204, (2007).
5. N. Gonzalez Szwacki, A. Sadrzadeh, and B. I. Yakobson, "*B₈₀ Fullerene: An Ab Initio Prediction of Geometry, Stability, and Electronic Structure*", **Phys. Rev. Lett.** **98**, 166804 (2007).
6. N. Gonzalez Szwacki and B. I. Yakobson, "*Energy decomposition analysis of metal silicide nanowires from first principles*", **Phys. Rev. B** **75**, 035406 (2007).
7. P. Bogusławski, N. Gonzalez Szwacki, and J. Bernholc, "*Interfacial segregation and electrodiffusion of dopants in AlN/GaN superlattices*", **Phys. Rev. Lett.** **96**, 185501 (2006).
8. N. E. Christensen, I. Gorczyca, A. Svane, N. Gonzalez Szwacki, and P. Bogusławski, "*Theoretical Studies of Semiconductors, with and without Defects, under Pressure*", **Phys. Stat. Sol. (b)** **235**, 374 (2003).
9. N. Gonzalez Szwacki and P. Bogusławski, "*GaAs:N vs GaAs:B: Symmetry-induced effects*", **Phys. Rev. B** **64**, R161201 (2001).

Conference Papers:

1. S. K. Estreicher, M. Sanati, and N. Gonzalez Szwacki, "*Fundamental Interactions of Fe in silicon: First-Principles Theory*", proceedings of the Gettering and Defect Engineering in Semiconductor Technology XII, **Solid State Phenomena** **131-133**, 233 (2008).
2. N. Gonzalez Szwacki and S. K. Estreicher, "*First-principles investigations of Fe-H interactions in silicon*", proceedings of the 24th International Conference on Defects in Semiconductors, **Physica B** **401-402**, 171 (2007).
3. P. Djemia, Y. Roussigné, A. Stashkevich, W. Szuszkiewicz, N. Gonzalez Szwacki, E. Dynowska, E. Janik, B. J. Kowalski, G. Karczewski, P. Bogusławski, M. Jouanne, and J. F. Morhange, "*Elastic properties of zinc blende MnTe*", proceedings of the XXXIII International School on Physics of Semiconducting Compounds, **Acta Phys. Polon. A** **106**, 239 (2004).
4. N. Gonzalez Szwacki, E. Przeździecka, E. Dynowska, P. Bogusławski, and J. Kossut, "*Structural properties of MnTe, ZnTe, and ZnMnTe*", proceedings of the XXXIII International School on Physics of Semiconducting Compounds, **Acta Phys. Polon. A** **106**, 233 (2004).
5. N. Gonzalez Szwacki, P. Bogusławski, I. Gorczyca, N. E. Christensen, and A. Svane, "*Electronic structure and optical properties of GaAs_{1-x}N_x and Ga_{1-x}B_xAs alloys*", proceedings of the 26th

International Conference on the Physics of Semiconductors, (ICPS26), Edinburgh, UK, July 28 - August 2 (2002), 253 (2003).

6. N. Gonzalez Szwacki, P. Bogusławski, I. Gorczyca, N. E. Christensen, and A. Svane, "*Electronic structure and optical properties of GaAs_{1-x}N_x and Ga_{1-x}B_xAs alloys*", proceedings of the XXXI International School on the Physics of Semiconducting Compounds, **Acta Phys. Polon. A** **102**, 633 (2002).