

Lista de lucrari

Titus Sandu “*Numerical Simulations of Quantum Devices*”, PhD Thesis, Texas A&M University, College Station, Texas, (2002).

Titus Sandu, Radu Iftimie “*Bandgaps and band bowing in semiconductor alloys*” accepted in Solid State Communications. ; doi:10.1016/j.ssc.2010.01.046; arXiv:1002.2579

Titus Sandu, D. Vranceanu, and E. Gheorghiu “*Linear dielectric response of clustered living cells*” Phys. Rev. E 81, 021913 (2010). arXiv: 1002.0663

Titus Sandu, “*Dynamics of a quantum oscillator strongly and off-resonantly coupled with a two-level system*”, Physics Letters A, **373**, 2753 (2009).

A.N. Chantis, **Titus Sandu**, and J. L. Xu, “*Ab-initio calculations of spin tunneling through an indirect barrier*”, PhysMath Central-Physics B, **1**, 13 (2008). .

Titus Sandu, “*Comments on Spin-dependent tunneling through a symmetric semiconductor barrier: The Dresselhaus effect*” Phys Rev. B **76**, 197301, (2007).

Titus Sandu, “*Dynamics of a two-level system coupled with a quantum oscillator: The very strong coupling limit*”, Phys. Rev. B. **74**, 113405 (2006); cond-mat/0608483.

Titus Sandu and W. P. Kirk, “*Electronic and optical properties of beryllium chalcogenides/silicon*”, Phys. Rev. B. **73**, 235307 (2006); cond-mat/0608514.

Titus Sandu, Athanasios Chantis, and Radu Iftimie, “*Spin tunneling through an indirect barrier*”, Phys. Rev. B. **73**, 075313, (2006); cond-mat/0601297.

Titus Sandu, “*Optical matrix elements in tight-binding models with overlap*”, Phys. Rev. B. **72**, 125105, (2005); cond-mat/0507204.

Titus Sandu and W. P. Kirk, “*Generalized band anti-crossing model for highly mismatched semiconductors applied to $BeSe_xTe_{1-x}$* ”, Phys. Rev. B. **72**, 073204, (2005); cond-mat/0507189.

T. Sandu and W. P. Kirk, “*Band bowing in $BeSe_xTe_{1-x}$* ”, AIP Conference Proceedings vol. 772, p. 175, (2005).

T. Sandu and W. P. Kirk, “*The role of emitter quasi-bound state and scattering on intrinsic bistability in resonant tunneling diodes*”, Physica E **22**/4, 815, (2004).

Titus Sandu, Gerhard Klimeck, and W. P. Kirk, “*Off-center electron transport in resonant Tunneling diodes due to incoherent scattering*”, Phys. Rev. B **68**, 115320, (2003).

T. Sandu and W. P. Kirk, “*Intrinsic bistability and emitter scattering in resonant tunneling diodes*”, *Physica E* **19**, 83 (2003).

T. Sandu and W. P. Kirk, “*Improvement of Light Absorption by Quantum Confinement and Band Folding for Enhanced Efficiency in Silicon Based Solar Cells*” in *cond-mat/0210056*.

T. Sandu, V. Chihaiia, and W. P. Kirk, “*Dynamic Squeezing in a Single-Mode Boson Field Interacting with 2-Level System*” *J. Luminescence* **101**, 101 (2003).

T. Sandu, R. Lake and W.P. Kirk “*The effect of interface quality on Si/SiO₂ resonant tunnel diodes*”, *Superlatt. Microstruct.* **30**, 201 (2001).

A. Azhari, C.A. Gagliardi, A.M. Mukhamedzanov, **T. Sandu**, X.D. Tang, L. Trache, R.E. Tribble, V. Burjan, V. Kroha, and F. Carstoiu “*Indirect Measurement of the ⁷Be(p, γ)⁸B S-factor*”, *Bull. Amer. Phys. Soc.* **44**, 1529 (1999).

V. Chihaiia, **T. Sandu**, and M. Vass, “*Formation and Growth of Atomic Clusters. An Ab Initio Study for Small Clusters of Li (N= 2 - 8)*”, *Romanian Journal of Physics*, Vol. **43**, No 5-6, 409, (1998).

Cristina Bercu, Liliana Lupan, Rodica Bandula, Marilena Vasilescu, **Titus Sandu**, and Laura Mitran, “*Study of the Molecular Properties of Proflavine, Acridine Yellow and Methylene Blue in Micellar Solutions*”, *Revue Roumaine de Chimie*, **42**(8), 693, (1997).

C.Bercu, T.Oncescu, L.Lupan, R.Bandula, M.Vasilescu, **T.Sandu**, and L.Mitran, “*The Modification of the Molecular Properties of Some Dyes in Sodium Dodecyl Sulphate (SDS) Micellar Aqueous Solution*”, *Fresenius J. Anal. Chem.* **355**, 753 (1996).

Publicatii in Rapoarte interne

B.C. Hyman, A. Azhari, C.A. Gagliardi, J.C. Hardy, **T. Sandu**, X. D. Tang, L. Trache, and R.E. Tribble, “*0⁺ → 0⁺ Nuclear β -Decay of ⁶²Ga*” *Progress in Research*, 1997/1998, Cyclotron Institute, Texas A&M University, College Station, Texas, p. I-31.

X.D. Tang, A. Azhari, C.A. Gagliardi, **T. Sandu**, L. Trache and R.E. Tribble “*Production of ¹¹C Radioactive Nuclear Beam with MARS*” *Progress in Research* 1998/1999, Cyclotron Institute, Texas A&M University, College Station, Texas, p. V-19.

L. Trache, A. Azhari, H.L. Clark, C.A. Gagliardi, Y.-W. Lui, A.M. Mukhamedzhanov, **T. Sandu**, R.E. Tribble and F. Carstoiu “*Elastic Scattering Between Loosely Bound p-shell Nuclei: An Update*” *Progress in Research* 1999/2000, Cyclotron Institute, Texas A&M University, College Station, Texas.

Titus Sandu, "MODELAREA MICROSCOPICA A COMPORTARII DIELECTRICE A CELULELOR BIOLOGICE SI A HETEROSTRUCTURILOR, UTILIZAND ALGORITMI EFICIENTI

DE REZOLVARE A INTEGRALELOR DE SUPRAFATA" Raport de faza I, CNCSIS, 1 decembrie 2007.

Titus Sandu, "MODELAREA MICROSCOPICA A COMPORTARII DIELECTRICE A CELULELOR BIOLOGICE SI A HETEROSTRUCTURILOR, UTILIZAND ALGORITMI EFICIENTI DE REZOLVARE A INTEGRALELOR DE SUPRAFATA" Raport de faza II, CNCSIS, 1 decembrie 2008.

Titus Sandu, "MODELAREA MICROSCOPICA A COMPORTARII DIELECTRICE A CELULELOR BIOLOGICE SI A HETEROSTRUCTURILOR, UTILIZAND ALGORITMI EFICIENTI DE REZOLVARE A INTEGRALELOR DE SUPRAFATA" Raport de faza III, CNCSIS, 30 iunie 2009.