

# List of Publications of Prof. Stefano Ossicini

1. Band-offset driven efficiency of the doping of SiGe core-shell nanowires  
M. Amato, S. Ossicini, R. Rurali  
NANO LETTERS 2011 ; 11 Pages: 594 - 598
2. Self-Energy and Excitonic Effects in the Electronic and Optical Properties of TiO<sub>2</sub> crystalline phases  
L. Chiodo, J. M. Garcia-Lastra, A. Iacomino, S. Ossicini, J. Zhao, H. Petek, A. Rubio  
PHYSICAL REVIEW. B, CONDENSED MATTER AND MATERIALS PHYSICS. 2010 ; 82 Pages: 0452 - 0452
3. Segregation, quantum confinement effect and band offset for [110] SiGe NWs  
M. Amato, M. Palummo, S. Ossicini  
PHYSICA STATUS SOLIDI B-BASIC RESEARCH. 2010 ; 247 Pages: 2096 - 2101
4. Ab initio optoelectronic properties of SiGe nanowires: Role of many-body effects  
M. Palummo, M. Amato, S. Ossicini  
PHYSICAL REVIEW. B, CONDENSED MATTER AND MATERIALS PHYSICS. 2010 ; 82 Pages: 0733 – 0733
5. Many-body effects on the electronic and optical properties of Si nanowires from ab-initio approaches  
M. Palummo, S. Ossicini, R. Del Sole  
PHYSICA STATUS SOLIDI B-BASIC RESEARCH. 2010 ; 247 Pages: 2089 – 2095
6. Giant excitonic exchange splitting in Si nanowires: First-principle calculations  
M. Palummo, F. Iori, R. Del Sole, S. Ossicini  
PHYSICAL REVIEW. B, CONDENSED MATTER AND MATERIALS PHYSICS. 2010 ; 81 Pages: 1213 - 1213
7. Electronic and optical properties of Si and Ge nanocrystals: an ab-initio study  
Olivia Pulci, Elena Degoli, Federico Iori, Margherita Marsili, Maurizia Palummo, Rodolfo Del Sole, Stefano Ossicini  
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8. Local-fields and disorder effects in free-standing and embedded Si nanocrystallites  
R. Guerra, E. Degoli, M. Marsili, O. Pulci, S. Ossicini  
PHYSICA STATUS SOLIDI B-BASIC RESEARCH. 2010 ; 247 Pages: 2113 - 2117
9. Conditions for High Luminescence in Si/SiO<sub>2</sub> Nanocrystals  
R. Guerra, S. Ossicini  
PHYSICAL REVIEW. B, CONDENSED MATTER AND MATERIALS PHYSICS. 2010 ; 81 Pages: 2453 - 2453
10. Silicon and Germanium Nanostructures for Photovoltaic Applications: Ab-Initio Results  
S. Ossicini, M. Amato, R. Guerra, M. Palummo, O. Pulci  
NANOSCALE RESEARCH LETTERS. 2010 ; 5 Pages: 1637 - 1649
11. Engineering quantum confined silicon nanostructures: ab-initio study of the structural, electronic and optical properties

E. Degoli, S. Ossicini

ADVANCES IN QUANTUM CHEMISTRY. 2009 ; 58 Pages: 203 - 279

12. Ab-initio calculations of luminescence and optical gain properties in silicon nanostructures  
E. DEGOLI; R. GUERRA; F. IORI; R. MAGRI; I. MARRI; O. PULCI; O. BISI; S. OSSICINI  
COMPTES RENDUS PHYSIQUE. 2009 ; 10 Pages: 575 - 586

13. Effects of simultaneous doping with boron and phosphorous on the structural, electronic and optical properties of silicon nanostructures

F. Iori, S. Ossicini

PHYSICA E-LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES. 2009 ; 41 Pages: 939 - 946

14. Impurity screening in silicon nanocrystals

F. Trani, D. Ninno, G. Cantele, E. Degoli, S. Ossicini

PHYSICA E-LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES. 2009 ; 41 Pages: 966 - 968

15. Reduced quantum confinement effect and electron-hole separation in SiGe nanowires

M. Amato, M. Palummo, S. Ossicini

PHYSICAL REVIEW. B, CONDENSED MATTER AND MATERIALS PHYSICS. 2009 ; 79 Pages: 2013 – 2013

16. Electronic properties and dielectric response of surfaces and nanowires of silicon from ab-initio approaches

M. Palummo, F. Iori, R. Del Sole, S. Ossicini

SUPERLATTICES AND MICROSTRUCTURES. 2009 ; 46 Pages: 234 - 239

17. Size, oxidation, and strain in small Si/SiO<sub>2</sub> nanocrystals

R. Guerra, E. Degoli, S. Ossicini

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18. Optical properties of silicon nanocrystallites in SiO<sub>2</sub> matrix: Crystalline vs. amorphous case

R. Guerra, I. Marri, R. Magri, L. Martin-Samos, O. Pulci, E. Degoli, S. Ossicini

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19. Silicon nanocrystallites in a SiO<sub>2</sub> matrix: Role of disorder and size

R. Guerra, I. Marri, R. Magri, L. Martin-Samos, O. Pulci, E. Degoli, S. Ossicini

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A. IACOMINO; G. CANTELE; D. NINNO; I. MARRI; S. OSSICINI

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23. Optical absorption spectra of doped and codoped Si nanocrystallites  
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24. First-Principles Study of Silicon Nanocrystals: Structural and Electronic Properties, Absorption, Emission, and Doping.  
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25. Excitons in Silicon Nanocrystallites: the Nature of Luminescence  
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M. BRUNO; M. PALUMMO; A. MARINI; R. DEL SOLE; S. OSSICINI  
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M. BRUNO; M. PALUMMO; S. OSSICINI; R. DEL SOLE

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