

Publicaciones del departamento de física

Universidad Autónoma Metropolitana
Física de Líquidos

March 2, 2018

1 2013

- N. L. Trujillo-López, C. Martínez-Flores, R. Cabrera-Trujillo. Universal scaling behavior of molecular electronic stopping cross section for protons colliding with small molecules and nucleobases. *Nuclear Instruments and Methods B* 313, 5-13 (2013).
- R. Cabrera-Trujillo, S. A. Cruz. Confinement approach to pressure effects on the dipole and the generalizae oscillator strength of atomic hydrogen. *Physical Review*, 87,1, pag. 2502, 2013
- A. Sarsa, J.M. Alcaraz-Pelegrina, C. Le Sech, S. A. Cruz. Quantum Confinement of the Covalent Bond beyond the Born-Oppenheimer Approximation. *Journal of Physical Chemistry B*, 117, pag. 7270-7276, 2013
- G. Muñoz-Hernández, S.A. Cruz, R. Quintero, H. Garca Arellano. Fink, L. Alfonta, Y. Mandabi, A. Kiv, J. Vacik. Accurate Coupled chemical reactions in dynamic nanometric confinement: Ag₂O membrane fromation during ion track etching. *Radiation Effects and Defects in Solids*, 168, 675-695, 2013.
- Gustavo A. Chápela, Fernando del Río, José Alejandro. Liquid-vapor phase diagram and surface properties in oppositely charged colloids represented by a mixture of attractive and repulsive Yukawa potentials. *J. Chem. Phys.*, 138, 054507, 1-17, 2013
- Julio C. Armas-Pérez, Jacqueline Quintana-H, Gustavo A. Chápela. Liquid-vapor equilibrium and interfacial properties of square wells in two dimensions. *J. Chem. Phys.*, 138, 044508, 1-9, 2013
- Gustavo A. Chapela, Enrique Díaz-Herrera, Julio C. Armas-Pérez, Jacqueline Quintana-H. Effect of flexibility on liquid-vapor coexistence and surface properties of tangent linear vibrating square well chains in two and three dimensions. *J. Chem. Phys.*, 138, 224509,1-9, 2013
- Julio C. Armas-Pérez, Jacqueline Quintana-H, Gustavo A. Chápela. Liquid-vapor equilibrium and surface properties of short rigid chains with one long range attractive potential. *J. Chem. Phys.*, 139, 024505, 1-11, 2013

- Fidelmar Lechuga-Sanabria, Gustavo A. Chápela, Jacqueline Quintana-H. Liquid crystalline and solid phases for a system of hard zigzag particles with Lennard-Jones sites in two-dimensions. *Physica A.*, 392, 20, 4760-4771, 2013
- F. del Río, S. Rivera Torres, A. Malijevski, J Kolafa. Molecular dynamics simulation of the free-energy expansion of the square-well fluid of short ranges. *Journal of Molecular Liquids.*, 185, 44-49, 2013
- F. del Río, T. Rodríguez-López, J. A. Moreno Razo. Thermodynamic scaling and corresponding states for the self-diffusion coefficient of non-conformal soft-sphere fluids. *Journal of Chemical Physics.*, 138, 114502, 2013
- F del Río, E. Díaz Herrera, O. Guzmán, JA Moreno Razo, JE Ramos. Analytical equation of state with three-body forces: Application to noble gases. *Journal of Chemical Physics.*, 139,184503, 2013
- José Antonio Vélez, Orlando Guzmán, Fernando Navarro-García. Steric contribution of macromolecular crowding to the time and activation energy for preprotein translocation across the endoplasmic reticulum membrane. *Physical Review E.*, 88, 12725, 2013
- E. Caeda-Guzmán, J. A. Moreno-Razo, E. Díaz-Herrera, E. J. Sambriski. Molecular aspect ratio and anchoring strength effects in a confined Gay-Berne liquid crystal. *Molecular Physics*, 10,1080, 1-11 (2013)

2 2014

- J.A. Martínez-González, G.A. Chapela, J. Quintana H. Spontaneous chiral resolution in two-dimensional systems of patchy particles. *The Journal of Chemical Physics*, 140, 194505-194510, 2014
- J.A. Martínez-González, R. Pablo-Pedro, J.C. Armas-Pérez, G.A. Chapela, J. Quintana H. Chiral segregation of hockey-stick shaped particles in two dimensions. *Royal Society of Chemistry*, 4, 20489-20495, 2014
- Julio C. Armas-Pérez, Jacqueline Quintana-H, Gustavo A. Chapela, Enrique Velasco, and Guillermo Navascues. Phase diagram of a square-well model in two dimensions. *The Journal of Chemical Physics*, 140, 064503-064511, 2014
- S.Cruz, R. Cabrera-Trujillo. Accurate evaluation of pressure effects on the electronic stopping cross section and mean excitation energy of atomic hydrogen beyond the Bethe approximation. *Nuclear Instruments and Methods in Physics Research B*, Vol.320, pg. 51-56, ao 2014
- E. Díaz, Octavio Cienega-Cacerez, Jose Antonio Moreno-Razo, Edward John Sambriski. Phase Equilibria, Fluid Structure, and Diffusivity of a Discotic Liquid Crystal. *Soft Matter*, Vol. 10, pág. De 3171 a 3182, 2014

- Octavio Cienega-Cacerez, Jose Antonio Moreno-Razo, Edward John Sambriski. Confinement and interaction effects on the diffusion of passive particles. Springer Book Series: Environmental Science and Engineering: Environmental Science, "Selected Topics.", 2014
- Fernando Del Río, Teresa de la Selva. Reversible and irreversible heat transfer by radiation. European Journal of Physics
- Anna Kozina, Pedro Díaz-Leyva, Thomas Palberg, Eckhard. Crystallization kinetics of colloidal binary mixtures with depletion attraction. Soft Matter, Vol. 10, Pg. De 9523 a 9533, ao 2014
- Gustavo A. Chapela, Orlando Guzmán, José Adrián Martínez-González, Pedro Díaz-Leyva, Jacqueline Quintana-Hinojosa. Self-assembly of kagome lattices, entangled webs and linear fibers with vibrating patchy particles in two dimensions. Soft Matter, Vol. 10, Pg. De 9167 a 9176, ao 2014
- J.A. Moreno, E. Caeda-Guzmán, E. Díaz-Herrera, E.J. Sambriski. Molecular aspect ratio and anchoring strength effects in a confined GayBerne liquid crystal. Molecular Physics, vol. 112, nm. 8, pg. 1149-1159, 2014
- Horacio Olivares Pilon. Quadrupole transitions in the bound rotational-vibrational spectrum of the dueterium molecular ion. Journal Physics, B, 47, 225101-2251012, 2014

3 2015

- Gustavo A. Chápela, G. Arlette Méndez-Maldonado, José Adrián Martínez-González, José Antonio Moreno Razo, Enrique Díaz-Herrera, José Alejadre. Fluid-solid coexistence from two-phase simulations: Binary colloidal mixtures and square well systems. Journal of Chemical Physics, Vol.: 142, Nm.: 5, Pg. Inicial: 4501, Pg. Final: 4506
- Autores: Gustavo A. Chápela, Orlando Guzmán, Enrique Díaz Herrera, Fernando del Río. Room temperature ionic liquids: A simple model. Effect of chain length and size of intermolecular potential on critical temperature. Journal of Chemical Physics, Vol.: 142, Nm.: 1545, Pg. Inicial: 8, Pg. Final: 811
- S. A. Cruz, Cabrera Trujillo T. Méndez-Fragoso. Energy level structure of the hydrogen atom confined by penetrable cylindrical cavity. J. Phys. B: At. Mol. Opt. Phys., Vol.: 49, Pg. Inicial: 15005, Pg. Final: 15020
- S. A. Cruz, E. Ley-Koo. The Hydrogen and molecular ions confined in dihedral angles. Advances in Quantum Chemistry, Vol.: 71, Pg. Inicial: 69, Pg. Final: 113, 2015
- F. del Río, O. Guzmán, J.E. Ramos Lara. Liquid-Vapor Equilibria of Ionic Liquids from a SAFT Equation of State with Explicit Electrostatic Free Energy Contributions. Journal of Physical Chemistry B., Vol. 119, Pg. Inicial: 5684, Pg. Final: 5872

- F. del Río, SMT de la Selva. Reversible and irreversible heat transfer by radiation. *European Journal of Physics.*, Vol. 36, Pg. Inicial: 1, Pg. Final: 20
- E. Díaz H., José María Zamora, Pedro D. Cruz-Santiago, Luis M. de la Cruz. GPU's molecular dynamics simulation of a one million particles. *Memorias 5th International Supercomputing Conference in México, ISUM2013*
- H. Olivares Pílon, A.V. Turbiner. Nuclear crystal charge for two electron ion in Lagrange wesh method. *Phys, Lett. A.* Vol. 379, Pag. Inicial: 688, Pg. Final: 690

4 2016

- CRUZ JIMÉNEZ SALVADOR, C. Díaz-García, H. Olivares-Pílon, R. Cabrera-Trujillo. Many-electron atom confinement by a penetrable plan Boundary. *Radiaton Effects and Defects in Solids.* Vol.: 171, Nm.: 1 Pag. Inicial: 123, Pag. Final: 134
- CRUZ JIMÉNEZ SALVADOR, H. Olivares-Pílon. The Effect of Confinement on the Electronic Energy and Polarizability of a Hidrogen Molecular Ion. *International Journal of Quantum Chemistry.* Vol.: 116, Pag. Inicial: 1891, Pag. Final: 1893
- Pedro Díaz-Leyva, Anna Kozina, Salvador Ramos, Rolando Castillo. Out-of-Equilibrium Assembly of Colloidal Particles at Air/Water Interface Tuned by Their Chemical Modification. *J. Phys. Chem.* Vol.: 120, Num.: Pag. Inicial: 16879, Pag. Final: 16886.
- M. Fuentes-Herrera, J.A. Moreno-Razo, O. Guzmán, J. López-Lemus. Separating the effects of repulsive and attractive forces on the phase diagram, interfacial, and critical properties of simple fluids. *J. Chem. Phys.* Vol.: 144, Num.: Pag. Inicial: 2145, Pag. Final:
- MORENO RAZO JOSÉ ANTONIO. Induced stabilization of columnar phases in binary mixtures of discotic liquid crystals. *Soft Matter.* Vol.: 12, Num.4: Pag. Inicial: 1295, Pag. Final: 1312
- A. V. Turbiner, J. C. López Vieyra and H. Olivares Pílon. Three body quantum Coulomb problema: analytic continuation. *Mod. Phys. Lett. A* Vol.:31, Num.:28 Pag. Inicial:1650156-1, Pag. Final:1650156-9
- H. Olivares Pílon, and A. V. Turbiner. The H₂⁺ molecular Ion: low-lying states, *Ann. Annals Of Phys.* Vol: 373, ao: 2016. Pag. Inicial:581, Pag. Final: 608

5 2017

- Autores: S. Cruz-Jiménez, R. Cabrera-Trujillo, R. Méndez-Fragoso. Pressure effects on the dipole oscillator strength, polarizability and mean excitation energy of a hydrogen impurity under cylindrical confinements: off-center axis effect. *J. Phys. B: At. Mol. Opt. Phys.* Vol.: 50, Pag. Inicial: 13500, Pag. Final: 13510

- Autores: S. Cruz-Jiménez, Horacio Olivares-Pilón. The H, H₂⁺ and HeH₂⁺ systems confined by an impenetrable spheroidal cavity: Revisited study via the Lagrange mesh approach. J. Quantum Chemistry Vol.: 117, Pag. Inicial: 25399, Pag. Final: 24415
- Pedro Díaz-Leyva, Anna Kozina, Dominik Sagawe, Eckhard Bartsch, Thomas Palberg. Correction: Polymer-enforced crystallization of a eutectic binary hard sphere mixture. Soft Matter. Vol.: 13, Pag. Inicial: 2410, Pag. Final: 2410