

Review of: "Evanescent Electron Wave Spin"

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Potential competing interests: No potential competing interests to declare.

I have reviewed the revised version once again, and while it's good, the manuscript requires further clarifications as follows:

1- Why the momentum along the z-direction is set $P_z=0$?

2- Please review equation 9?

3-Give some types of Quantum walls and its applications

4-Explain the boundary condition 18

5- In section IV: Evanescent electron wave spin, give more details with validation of the analytical solutions, and you should enhance the discussion with more references like: i) Obada, A.-S.F., Abdel-Aty, M. Influence of the stark shift and kerr-like medium on the evolution of field entropy and entanglement in two-photon processes *Acta Physica Polonica B*, 2000, 31(3), pp. 589–599 el-Aty, M., Furuichi, S., Obada, A.-S.F. Entanglement degree of a nonlinear multiphoton Jaynes-Cummings model *Journal of Optics B: Quantum and Semiclassical Optics*, 2002, 4(1), pp. 37–43 DOI: 10.1088/1464-4266/4/1/306

ii)K. Al-Heuseen, A.I. Aljameel, M. Kh. Alquran, The Mechanism of Charge Flow and Electric Current in Porous GaN Thin Films during Photo Electrochemical Etching
Int. J. Thin Film Sci. Tech. Vol. 11, No. 1 (2022) PP: 89-94 doi:10.18576/ijtfst/110111

iii) Mohamed, H. A., Hadia, N. M. A., Influence of Post Thermal Annealing on the Optical Properties of SnO₂ Films Prepared by Electron Beam Evaporation Technique, *Int. J. of Thin Film Science and Technology* 4 (2015), pp. 1-7

iv) Khalida Inayat Noor, Muhammad Aslam Noor, Hamdy M. Mohamed, Quantum Approach to Starlike Functions *Appl. Math. Inf. Sci.* Volume 15, No. 4 (2021) PP: 437-441 doi:10.18576/amis/150405

v)Nikolai N. Bogolyubov, Jr., Andrey V. Soldatov, Time-Convolutionless Master Equation for Multi-Level Open Quantum Systems with Initial System-Environment Correlations, *Appl. Math. Inf. Sci.* Volume 14, No. 5 (2020) PP: 771-780, doi:10.18576/amis/140504

6- In this paragraph: Discuss how Eq. 21 demonstrates the stable circulating current density exists both inside and outside the quantum well, as evidenced by the non-zero component $j_{\phi}\phi$ in all regions and zero component $j_{\phi}p$ everywhere. The

evanescent electron wave is shown to spin concurrently with the electron wave inside the quantum well, as illustrated by the vector plot of Fig. 4. The current density continuity is observed at the boundary as a result of the wavefunction continuity at the boundary in Eqs. 15 and 17, which also ensures the charge density continuity?

7- Explain the boundary conditions of the figures with quantum walls.