ISSN: 2167-7662
Bioenergetics: Open Access

OPEN ACCESS Freely available online

Research Article

APPENDIX

Computational model

$$\psi(x) = \psi_r(x) + i\psi_i(x)$$

Where:

$$\psi_r(x) = \sqrt{\frac{boltzmann\_dist[i]}{norm\_factor}} \cos\left(k_o lx[i]\right)$$

$$\psi_i(x) = \sqrt{\frac{boltzmann\_dist[i]}{norm\_factor}} \sin\left(k_o lx[i]\right)$$

Where:

$$boltzmann\_dist[i] = \exp\left(-\frac{ke-\mu}{k_o T}\right)$$

$$norm\_factor = \sqrt{\sum boltzmann\_dist}$$

$$K_o = \sqrt{\frac{2ke\mu_p}{h^2}}$$

Where:

- ke is the kinetic energy of the proton
- k_b – Boltzmann constant
- T – temperature in Kelvin
- μ is the chemical potential or Fermi level, given by ke × electron volt – k_b × T.

Correspondence to: Joseph De Luna, Department of Biophysics, Technological University of the Philippines, Manila, Philippines, E-mail: josephdeluna540@gmail.com

Received: 20-Sep-2023, Manuscript No. BEG-23-23116; **Editor assigned:** 22-Sep-2023, PreQC No. BEG-23-23116 (PQ); **Reviewed:** 06-Oct-2023, QC No BEG-23-23116; **Revised:** 13-Oct-2023, Manuscript No. BEG-23-23116 (R); **Published:** 23-Oct-2023 DOI: 10.35248/2167-7662.23.11.228.

Citation: Luna JD (2023) Exploration of Temperature-Induced Quantum Proton Tunneling Probability in PCR-Mediated DNA Amplification. J Bio Energetics. 11:228.