

Review of: "A memory dependent analysis on permeation of non-Gaussian laser pulse through human skin"

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Potential competing interests: No potential competing interests to declare.

A memory dependent analysis on permeation of non-Gaussian laser pulse through human skin

The present article deals with a thermodynamic analysis of laser treatment on human skin. Replacing Pennes model of thermodynamics, a well defined memory dependent hyperbolic type thermoelastic heat conduction model is adopted. In order to analyse the thermal shock experienced by the skin layers, a bi-layer skin containing two main layers: epidermis and dermis, is considered. An instantaneous point heat source and a non-Gaussian laser pulse are applied on the skin surface to analyze the thermal memory response into the skin-layers. Two different types of laser beams are considered to validate the thermoelastic observations with the optical results.

The problem is worth for investigation in the direction of Bio-mechanics, however a minor revision need to be required. It may be accepted for publication subject to following modifications/corrections:

1. The abstract is poorly written and should be briefly describe the purpose of the research, the principal results, and major findings
2. Highlight the objective of manuscript in details; abbreviations are discussed before writing them. Organization is missing. Even the mathematical formulation section is very small without any specific unique details.
3. There are typo errors exist, so authors should check the typo, grammar, and formula of the manuscript.
4. The novelty of this work is not clearly mentioned. The authors should highlight the novelty of this work.

Introduction: Poor referencing, and lack of clear motivation. In place of just citing the references, author should include the contribution made by the previous researchers. To enrich the literature review, following published papers should be read and cited with the aim of improving the introduction section:

1. Jeffrey fluid flow through a porous horizontal magnetized pipe.
2. Unsteady flow of a micropolar fluid generated by a circular cylinder subject to longitudinal and torsional oscillations