
APLIKASI *COLD ATMOSPHERIC PRESSURE PLASMA* (CAPPS) DALAM BIDANG DERMATOLOGI: SUMBER DAN KARAKTERISASI

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ABSTRACT

Plasma is an electrically conductive medium that responds to electric and magnetic fields. Plasma consists of a large number of highly reactive species, such as ions, energetic electrons, outgoing atoms and molecules, ultraviolet photons, and metastable and active radicals. Recently, cold atmospheric pressure plasmas (CAPPs) have provided many new opportunities in dermatology by providing a multimodal action of reactive agents. This review specifically reviews the source of CAPPs type plasma both directly and indirectly in its application in the field of treatment and dermatologist. We indicate the most suitable plasma source, which provides a lot of physical effects on the skin without electric or thermal shocks. The mechanisms of generation and transport of major reactive species are introduced and examined from the point of view of CAPPs application in the field of dermatology.

Keywords: Cold Atmospheric Pressure Plasmas (CAPPs), Dermatology, Medical.

ABSTRAK

Plasma adalah media penghantar listrik yang merespons medan listrik dan magnet. Plasma terdiri dari sejumlah besar spesies yang sangat reaktif, seperti ion, elektronenergi, atom dan molekul yang keluar, foton ultraviolet, dan radikal metastabil dan aktif. Baru-baru ini, cold atmospheric pressure plasmas (CAPPs) telah memberikan banyak peluang baru dalam dermatologi dengan menyediakan tindakan multimodal agen reaktif. Ulasan ini secara spesifik mereview sumber plasma jenis CAPPs langsung dan tidak langsung dalam aplikasinya dibidang perawatan dan dermatologis. Kami menunjukkan sumber plasma paling cocok, yang memberikan banyak efek fisik pada kulit tanpa kejutan listrik atau termal. Mekanisme pembangkitan dan transportasi spesies reaktif utama diperkenalkan dan diperiksa dari sudut pandang aplikasi CAPPs dibidang dermatologi.

Kata kunci: Cold Atmospheric Pressure Plasmas (CAPPs), Dermatologi, Medis.



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