

**DEVELOPMENT OF FACIAL WASH WITH TORCH GINGER STEM
ETHANOL EXTRACT FOR ANTI ACNES BACTERIA**

By

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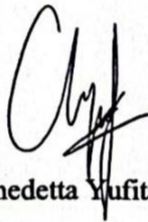


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STATEMENT BY THE AUTHOR

I hereby declare that this submission is my own work and to the best of my knowledge, it contains no material previously published or written by another person, nor material which to a substantial extent has been accepted for the award of any other degree or diploma at any educational institution, except where due acknowledgement is made in the thesis.



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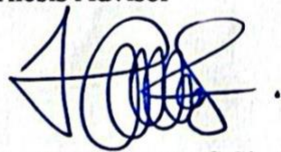


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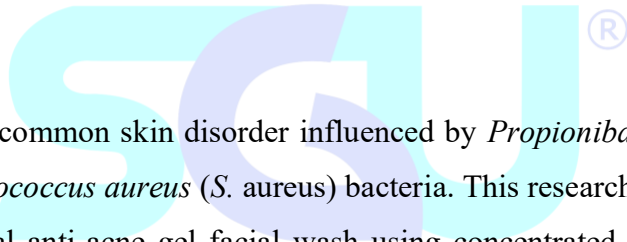
ABSTRACT

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Acne vulgaris is a common skin disorder influenced by *Propionibacterium acnes* (*P. acnes*) and *Staphylococcus aureus* (*S. aureus*) bacteria. This research aimed to develop an effective, natural anti-acne gel facial wash using concentrated torch ginger stem extract, referring to limitations of previous formulations that included salicylic acid and high ethanol content. This study focused on obtaining an optimal concentrated torch ginger stem ethanol extract, formulating a gel facial wash, and evaluating its antibacterial effectiveness against *P. acnes* and *S. aureus*. The extract separated into non-polar and polar phases, with the MBC values at concentration of 5.68% and 5.14% respectively. In conclusion, optimized formula of the gel facial wash, containing carbopol 80 (1.2g), propylene glycol (12g), TEA (8g), coconut oil (31.15g), non-polar extract (7.39g), polar extract (13.71g), and water up to 100mL., was identified achieving an MBC of 11.90% against both bacteria, demonstrated stable foam, and effective cleaning. It proved to be an effective antibacterial agent against acne-causing bacteria.

Keywords: Acne vulgaris, Propionibacterium acnes, Staphylococcus aureus, Torch ginger, Facial wash.



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