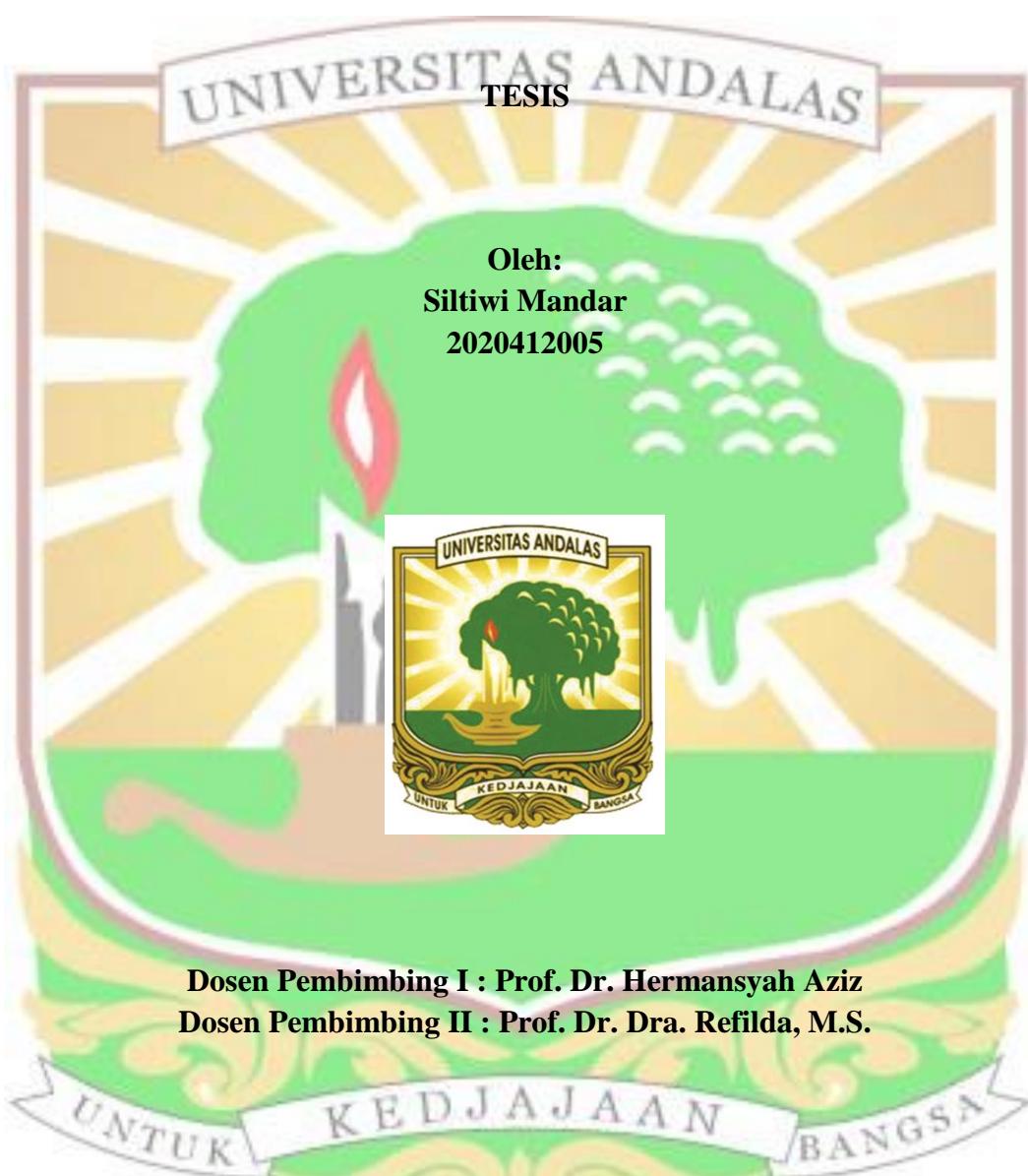
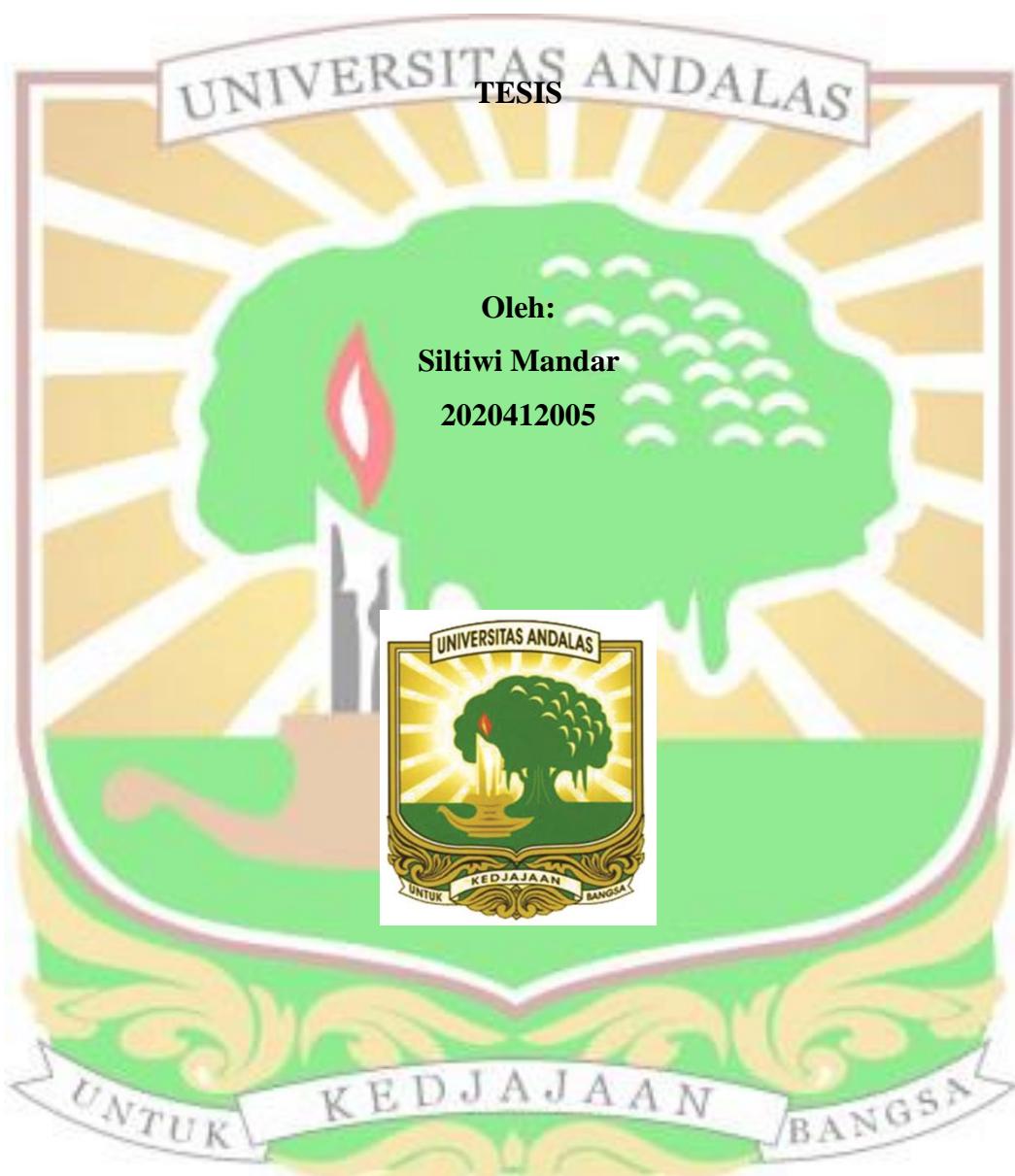


**FOTOSTABILITAS AVOBENZONE DALAM SUNSCREEN KOMERSIAL
SPF 50 DENGAN PENAMBAHAN QUENCHER
OLEH PENYINARAN MATAHARI**



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Oleh: Siltiwi Mandar (2020412005)

Dibawah bimbingan Prof. Dr. Hermansyah Aziz dan Prof. Dr. Dra. Refilda, M.S.



PHOTOSTABILITY OF AVOBENZONE IN A COMMERCIAL SUNSCREEN SPF 50 WITH THE ADDITION OF QUENCHER UPON SUN EXPOSURE

By: Siltiwi Mandar (2020412005)

Supervised by: Prof. Dr. Hermansyah Aziz and Prof. Dr. Dra. Refilda, M.S.

ABSTRACT

Sunscreen can prevent acute and chronic skin damage, acute skin damage includes the burning effect that is felt on the skin, chronic skin damage due to exposure to UV A and UV B rays, namely skin cancer. Avobenzone is a UV filter that is often used but is unstable when exposed to sunlight, for this reason a quencher is added as an avobenzone photostabilizer in Commercial Sunscreen SPF 50. The quencher used is the quencher used is Octocrylene, Solastay S1 (ethylhexyl methoxyrilene), polycrylene (Polyester-8) and Sinoxyl HSS (trimethoxybenzylidene pentanedione). The SPF 50 sunscreen formula before and after adding the quencher is tested for its chemical and physical properties which include homogeneity, pH, viscosity and cream type tests to comply with quality requirements based on SNI. From the test, it was found that all formulas met the quality standards of sunscreen according to SNI, namely having good homogeneity, pH in the range 5.48-5.69, viscosity 4,587-20,427 cPs with oil in water O/W cream type. Furthermore, avobenzone photostability was tested from the formula before and after adding avobenzone using a UV VIS spectrophotometer, the best formula was obtained, namely sunscreen SPF 50 with the addition of 4% solastay S1 (FSOL2). HPLC and FTIR tests were carried out for FSOL2 to see more specific avobenzone photodegradation and to see functional groups before and after irradiation.

Keywords: sunscreen, UV filter, photostability of avobenzone, quencher.