

(19)



(11) Utility model Number: 329

(24) Registration date: 15/01/2021

(12) UTILITY MODEL

<p>(21) Application Number: 2018/1040</p>	<p>(73) Owner: JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY (JKUAT) of P. O. BOX 62000-00200, NAIROBI, Kenya</p>
<p>(22) Filing Date: 24/09/2018</p>	<p>(72) Inventors: JOHNSON KINYUA, P. O. BOX 62000-00200, NAIROBI, Kenya; DANIEL KARIUKI, P. O. BOX 62000-00200, NAIROBI, Kenya; FRANCIS MUREGI, P. O. BOX 342-01000, THIKA, Kenya; JOSEPH NGANGA, P. O. BOX 62000-00200, NAIROBI, Kenya and MARTIN SIFUNA, P. O. BOX 1459, BUNGOMA, Kenya</p>
<p>(30) Priority data: 2017/2666 22/05/2017 KE</p>	<p>(74) Agent/address for correspondence: DIRECTORATE OF INTELLECTUAL PROPERTY MANAGEMENT AND UNIVERSITY-INDUSTRY LIAISON, JOMO KENYATTA UNIVERSITY OF AGRICULTURE SCIENCE & TECHNOLOGY, P. O. BOX 62000-00200, NAIROBI, Kenya</p>

(51) Int.Cl.2016.01: A 61K 31/00

(54) **Title:** COMBINATION FOR TREATING MALARIA COMPRISING 3-CHLORO-4-(4-CHLOROPHENOXY) ANILINE AND ARTESUNATE

(57) **Abstract:**

The present invention discloses an anti-malarial composition comprising aniline and artesunate. The composition has a suitable synergistic action against malaria when administered orally to humans due to their combined active components. *In vitro* semi-automated micro-dilution assay is used to determine the drugs' IC₅₀ values while Peters' 4-day *in vivo* test is used to determine the drug's chemo-suppressive effect on *P. berghei*. ED₅₀ values are determined by linear regression using version 5.5 of Statistica, 2000 and one-way analysis of variance at 95% confidence level. A combination of 1.1 ng/ml of artesunate (IC₅₀ 2.4ng/ml on W₂) and 3.3 ug/ml of 3-chloro-4-(4-chlorophenoxy) aniline (IC₅₀ 8.7-g/ml on W₂) is capable of inhibiting 50% growth of W₂ and a combination of 0.8 ng/ml of artesunate (IC₅₀ 1.6ng/ml on 3D7) and 2.6-g/ml of 3-chloro-4-(4-chlorophenoxy) aniline (IC₅₀ 7.1J.lg/ml on 3D7) is able to inhibit 50% growth of 3D7. The combination is nontoxic and effective in control malaria.