

Investigations into the synthesis of 6-Ethyl-5-(4-Pyridinyl)-2,4-pyrimidinediamine as potential antimalarial agents

王惠珀

Hung Wang JHP; Werbel LM

Abstract

The synthesis of 6-ethyl-5-(4-pyridinyl)-2,4-pyrimidinediamine (2), the pyridine analog of pyrimethamine, is described. Condensation of 4-pyridineacetonitrile (3) with methyl propionate afforded (1-oxopropyl)-4-pyridineacetonitrile (4). Treatment with triethyl orthopropionate gave primarily the undesired N-alkylated material. However reaction of the crude mixture with guanidine afforded 2 in low yield. This material was devoid of significant antimalarial activity.