114. A SEARCH FOR NEW ANTIPARASITIC AGENTS

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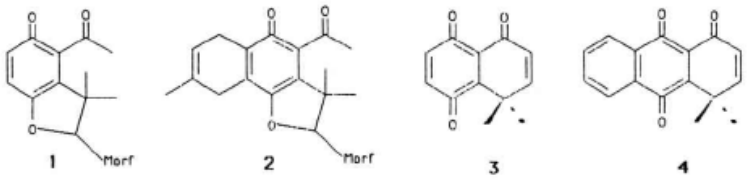
In connection with our previous work in the field of quinone chemistry and the potential pharmaceutical value of these compounds, we have begun a search for antiprotozoal activity of some synthetic substances. In a first approximation we choose two quinones (3 and a) with some common structural features, and two furan derivatives (1 and 2) which are intermediates in the synthesis of this class of quinones.



1 2 3 4

All four substances were tested in vitro against promastigotes of Trypanosoma cruzi, Leishmania brasiliensis brasiliensis, Leishmania mexicana amazonensis and Leishmania donovani chagasi. The most interesting compound turned out to be 4, which causes the total lysis of parasites at concentrations three times lower that the reference drug (pentamidine). For Leishmania brasiliensis brasiliensis the minimum concentration required is six times lower that of pentamidine. Due to these early findings, we decided to synthetize structural analogues of 4.