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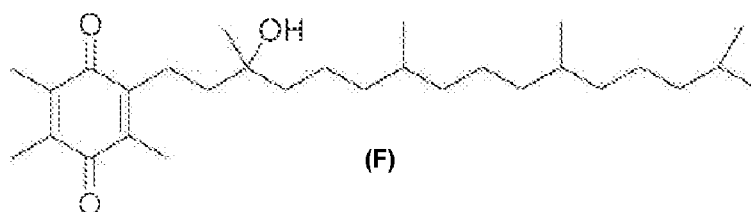
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(54) Title: SYNTHESIS OF ALPHA-TOCOPHEROLQUINONE DERIVATIVES, AND METHODS OF USING THE SAME



(57) Abstract: The present invention is directed to a method of synthesizing a compound of *Formula I*: the method comprising oxidizing alpha-tocopherol with a metal salt oxidizing agent to form the compound of *Formula I*, wherein the stoichiometric ratio (mol/mol) of metal salt oxidizing agent/alpha-tocopherol is 1.6 to 4. The invention is also directed to a method of synthesizing a compound of *Formula I*, the method comprising (a) hydrolyzing alpha-tocopheryl acetate in the presence of a base; (b) neutralizing the hydrolyzing of (a), thereby forming alpha-tocopherol; and (c) oxidizing the alpha-tocopherol of I (b) with a metal salt oxidizing agent to form the compound of *Formula I*, wherein the stoichiometric ratio (mol/mol) of metal salt oxidizing agent/alpha-tocopherol is 1.6 to 4.