

A New Approach to a Synthesis of α -Tocopherol, α -Tocotrienol and Their Analogs

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A new approach was proposed to synthesize racemic α -tocopherol **10** and α -tocotrienol **8** and their analogs **7**, **9** used as key synthones the aldehydes **5** and **6** of chromane structure owning (Z)-monoene- and (E,E)-diene side chain. The latters were easily prepared by a condensation of trimethylhydroquinone with the vinylation products of ketoacetals **3** and **4**. The latters are the available products of partial ozonolysis of dimer **1** and trimer **2** of isoprene. An olefination of **5** and **6** by the corresponding phosphoranes gives a way to synthesize **8**, **10** and their analogs - the isoprenologue-**7** and (Z)-isomer **9**.

