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(54) Title: NOVEL REACTION CONDITIONS FOR THE CLEAVAGE OF SILYL ETHERS IN THE PREPARATION OF PACLITAXEL (TAXOL®) AND PACLITAXEL ANALOGUES

(57) Abstract

Novel reaction conditions for the cleavage of silyl ethers from silyl protected taxane precursors to afford paclitaxel and paclitaxel analogues in high yield and quality are described. Paclitaxel is prepared from a taxane precursor by treating the taxane precursor with a strong acid such as trifluoroacetic acid in a solvent such as aqueous acetic acid, such that the amount and number of side reactions and taxane impurities are significantly minimized. Also described are the crystallization methods for the isolation of paclitaxel in either of the two crystal forms A or B. Paclitaxel and paclitaxel analogues are anti–cancer agents.