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Synthesis of *trans*-4-Methyl-L-Proline

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SYNTHESIS of *trans*-4-METHYL-L-PROLINE
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In connection with our long term goal of synthesizing enopeptin A, a novel antitumor and antibiotic depsipeptide, we require *trans*-4-methyl-L-proline as one of the most crucial precursors. Synthesis of 4-methyl-L-proline usually results in a mixture of *trans*-4- (1) and *cis*-4-methyl-L-proline (2) isomers. Previous methods do not provide a satisfying synthetic route with high ratio of the *trans* isomer. Our current research employs *trans*-4-hydroxy-L-proline (3), a relatively inexpensive and commercially available chemical, as the starting material. We expect to synthesize the target molecule with a net retention of configuration.

