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An Efficient Synthesis of (1 S , 2 R)-1-Amino-2-Indanol, A Key Intermediate of HIV Protease Inhibitor, Indinavir

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Abstract: (1S,2R)-1-amino-2-indanol, a key component of an HIV protease inhibitor is synthesized in four steps starting from indanone. The $Mn(OAC)_3$ mediated acetoxylation of indanone followed by fungus catalyzed hydrolysis of acetoxyindanone furnished optically pure α-hydroxy indanone. Formation and enantioselective reduction of oxime ether of 2-hydroxyindanone afforded (1S, 2R)-1-amino-2-indanol in 97% {\it cis} selectivity.