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A New, Improved Synthesis of 9-Benzyladenine: An Important Heterocyclic Analogue of Adenosine Useful for Chemical and Biochemical Research of Nucleic Acids

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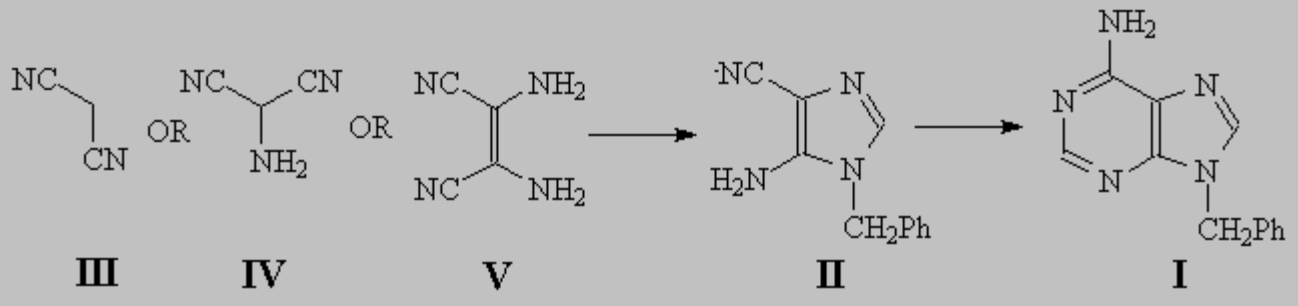
9-Benzyladenine (**I**) is a rare chemical often used by chemists, biochemists, as well as biophysical chemists doing research in the field of nucleic acids as a convenient heterocyclic base model for physicochemical comparison with adenosine. However, **I** is commercially unavailable, and the synthetic methods available from the literature are tedious and poor yielding. We have synthesized **I** from 5-amino-1-benzyl-4-cyanoimidazole (**II**) which, in turn, was synthesized from acyclic precursors, **III**, **IV** or **V**, using three different methods. We report herein all these methods, along with our recommendation for the best method in terms of both convenience and product yield to access both the imidazole precursor **II** and the target 9-benzyladenine (**I**).



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