
An effective way to aminoluciferin and its derivatives

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Abstract

In the last year we tried to find an effective synthetic route to 6-aminobenzothiazole-2-carbonitrile. At first we used the well known synthetic routes found in the synthesis of luciferin but without satisfying results. The mild thiolation concept, developed in our group, was not successful as well. At the end we found an easy way, starting from the commercially available 2-chlorobenzothiazole. After optimizing the synthetic steps the 6-aminobenzothiazole-2-carbonitrile could be synthesized in high yields without any difficulties. This opens the way to the synthesis of substituted aminoluciferines as well as aminooxyluciferines, molecules with a brilliant and intensive fluorescence.

Keywords: aminoluciferin, aminooxyluciferin, synthesis

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