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Synthetic strategies for non-hydrolyzable pyrophosphate analogues

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Stellingen

behorende bij het proefschrift

Synthetic strategies for non-hydrolyzable pyrophosphate analogues

1. The synthesis of a target molecule is not the end of a project, but the beginning of understanding its biological relevance.
This thesis. Chapter 5.
2. A successful synthesis is not only defined by yield, but also by scalability and practicality.
This thesis. Chapter 4.
3. Reliable small-scale reaction performance is a prerequisite for successful scale-up.
This thesis. Chapter 3.
4. Well-designed target molecules can substantially simplify their synthetic routes.
This thesis. Chapter 2, 3, and 5.
5. Subtle structural modifications in nucleotide sugars can lead to large differences in enzymatic recognition.
E. Kim, ChemBioChem. 2020, 21, 3026.
6. Elegant synthetic routes are often discovered after the most complicated ones have failed.
B. Smith, P. Baran, Angew. Chem. Int. Ed. 2024, 63, e202401107.
7. The exploration of valuable molecules is often limited more by synthetic accessibility than by their biological or functional relevance.
8. Without clear characterization of stereochemistry, the structural assignment of complex molecules remains uncertain.
9. The ability to ask meaningful questions is more important than always having the right answers.

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Leiden, 17 september 2026