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Highly Efficient and Optically Active Synthesis of Crown-THF Ligand

Scalable, low-cost synthesis of high-purity pharmaceutical intermediates from inexpensive sugars for the production of potent HIV/AIDS treatments.

Researchers at Purdue University have developed an efficient method to synthesize an optically pure Crown-THF ligand that is useful in the synthesis of highly potent HIV-1 protease inhibitors. Current methods of synthesis involve numerous complex steps and the resulting bis-THF may not be optically pure. There is also high cost associated with the starting materials and reagents. This technology developed at Purdue uses inexpensive, optically active sugars to synthesize an optically pure bis-THF is more efficient. This current synthetic route is highly efficient, practical, and can be used for large scale synthesis of potent compounds for HIV/AIDS.

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Advantages

- Increased synthesis efficiency

- Low cost

- Easily scaled up

- Produces a higher quantity of optically pure ligand

Applications

- Treatment of HIV/Aids

TRL: 3

Intellectual Property:

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Authors
Arun K Ghosh
Shivaji Markad

Further information
Joe Kasper
JRKasper@prf.org

Nathan Smith
nesmith@prf.org

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