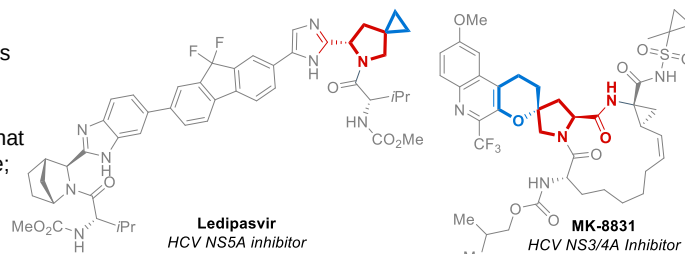


Practical avenues to a complete set of spiro-linked α -prolines

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Background and synthetic strategy

- ❖ 'unusual' 3D-shaped α -amino acids have become indispensable components of MedChem contributing to its major branches – low molecular APIs, medium-size peptides, and large proteins;
- ❖ **proline** is a unique amino acid with a peculiar structure that grants proline exclusive conformationally restricted shape;
- ❖ installation of a spiro-conjunction into proline may allow the engineering of favorable protein-ligand interactions not possible for a much flatter monocyclic proline ring;
- ❖ THIS WORK describes **CONCISE** and **PRACTICAL** synthetic approaches toward **MULTIGRAM** preparation of value-added conformationally constrained spirocyclic prolines from **READILY ACCESSIBLE** compounds



Synopsis of the project

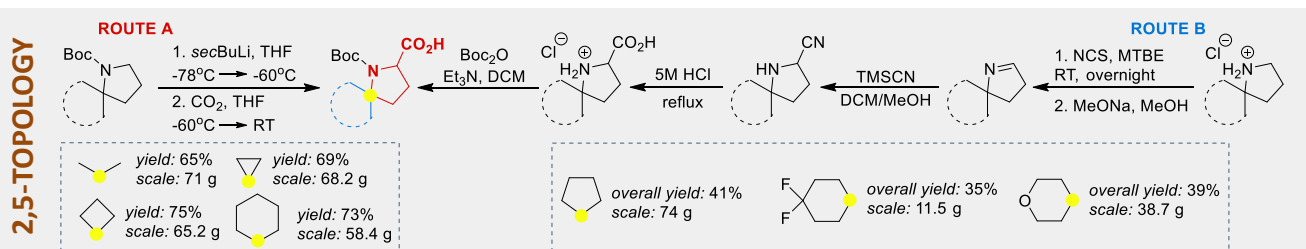
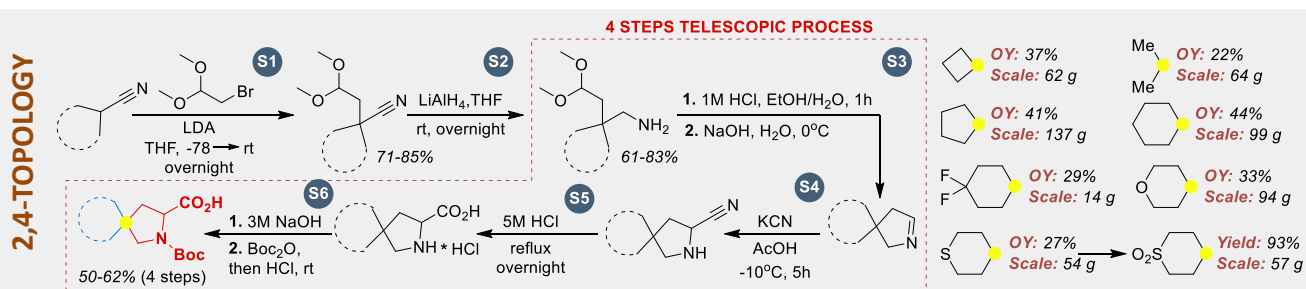
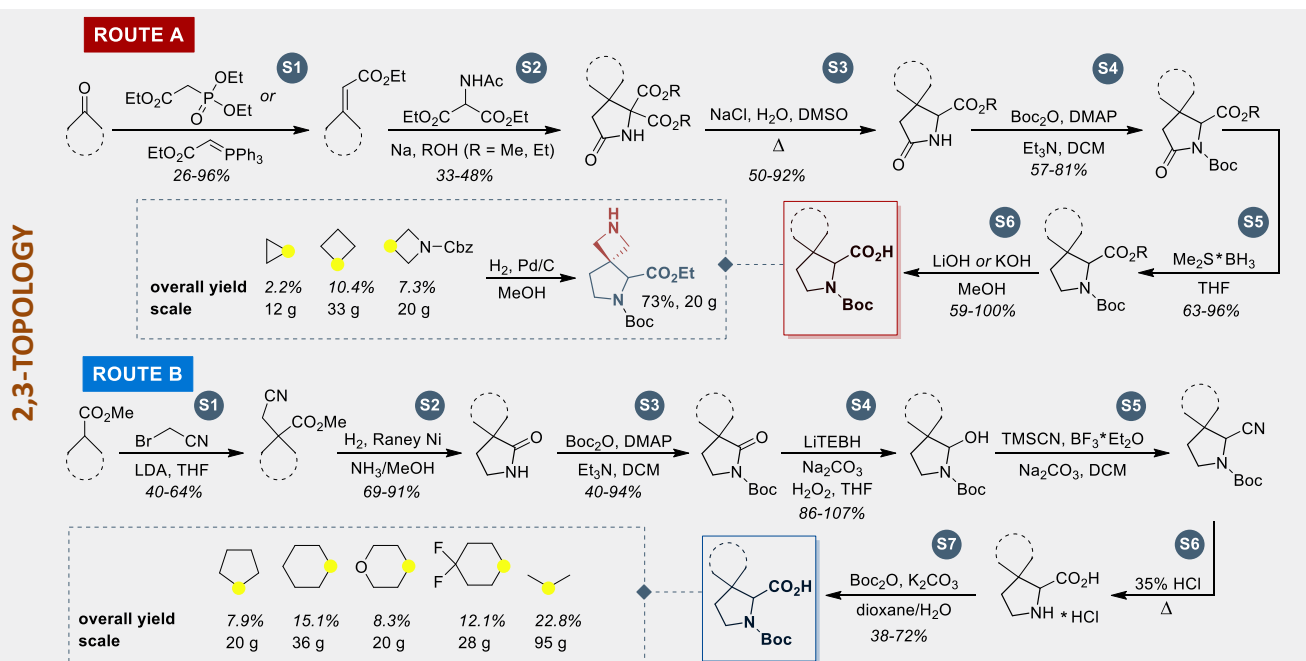
β , γ or ω 'artificial' spiro conjunctions imparting conformational restrictions

natural proline pharmacophoric platform with inherent high bioactivity

sp³ enriched 3D shaped BB

- convenient procedures
- large scale preparation
- 2(3) orthogonal diversity points
- conformationally constrained

Synthetic results



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