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Catalog # 07-0414 (5aS,10bR)-(-)-5a,10b-Dihydro-2-(pentafluorophenyl)-4H,6H-indeno[2,1-b][1,2,4]trizolo[4,3-d][1,4]oxazinium tetrafluoroborate (contains 15-20% minor isomer)

Technical Notes

- Used in triazolium-catalyzed carbocyclization of carbohydrate-derived dialdehydes to produce allo- and epiinositol.
- 2. Triazolium catalyst for enantioselective Darzens reactions.
- 3. Catalyst for Lewis acid assisted reaction of 2-aroylvinylcinnamaldehydes to produce indeno-[1,2-c]furan-1-one derivatives.
- 4. Catalyst for asymmetric desymmetrization of 1,3-Diketones via Intramolecular benzoin reaction.
- 5. Catalyst for asymmetric synthesis of spirobenzazepinones with atroposelectivity and spiro-1,2-diazepinones by [3+4] annulation reactions.
- 6. Catalysis for a highly enantioselective [4+2] annulation.

$$R^{2} \xrightarrow[R^{1}]{\text{H Note (5)}} R^{3}$$

$$R^{3} \xrightarrow[Cs_{2}CO_{3}, EtOAc]{\text{Triazolium catalyst}}} R^{2} \xrightarrow[R^{1}]{\text{Tech. Note (5)}} Ref. (5)$$

$$R^1$$
 R^2 R_F R^2 R_F R_F

References:

- 1. J. Org. Chem., 2014, 79, 5088.
- 2. Angew. Chem. Int. Ed., 2015, 54, 14150
- 3. Chem. Commun., 2016, 52, 788.
- 4. J. Org. Chem., 2016, 81, 2763.
- 5. Angew. Chem. Int. Ed., 2016, 55, 11110.
- 6. Synth., 2017, 49, 293.