Strem Chemicals, Inc.

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Catalog # 39-5850

 $\label{tris} Tris[N,N,N,N-tetramethylguanidinium][tris(1S)-(1,1'-binaphalene)-2,2'-diolato]yttrate Y-HTMG-B$

Technical Notes:

- 1. Catalyst used for an asymmetric Michael addition.
- 2. Catalyst used for an asymmetric Michael addition of 1,3-dicarbonyls to enones.
- 3. Catalyst used for the asymmetric aza-Michael addition of methylhydroxylamine to chalcone derivatives.
- 4. Catalyst used for the asymmetric direct aldol reaction of acetophenone and pivaldehyde.

Lan. catalyst (x mole%)
Lil (3x mole%)
Drierite 1 equiv

$$Ar^{2} + CH_{3}ONH_{2} \xrightarrow{THF, -20^{\circ}C, 48 \text{ h}} Ar^{1} \xrightarrow{*} Ar^{2} \text{ Ref. (1)}$$

Lan. catalyst (8 mole%)
$$Li-I (24 \text{ mol}\%)$$

$$KO(tBu) (8 \text{ mol}\%)$$

$$H_2O (16 \text{ mol}\%)$$

$$OH O$$

$$H_2O (16 \text{ mol}\%)$$

$$THF, -20°C, 20 \text{ h}$$

$$THF, -20°C, 20 \text{ h}$$

$$THF, -20°C, 20 \text{ h}$$

Reference:

1. J. Am. Chem. Soc., 2014, 136, 8034.