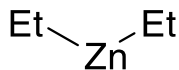


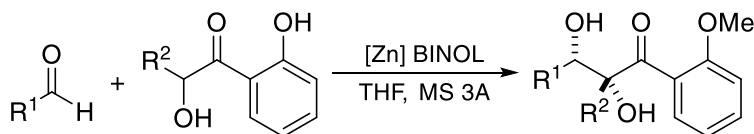
Catalog # 93-3030 Diethylzinc, min. 95%



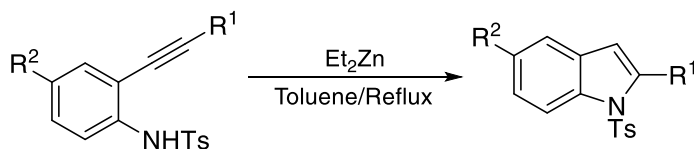
Catalysis Applications

Technical Notes:

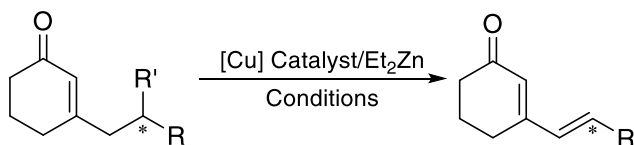
1. Catalyst for direct asymmetric aldol reaction of hydroxyketones.
2. Catalyst for the intramolecular hydroamination of alkynyl sulfonamides and the related tandem cyclization/addition reaction.
3. Used in Cu-catalyzed regiodivergent 1,4-asymmetric conjugate addition.
4. Used in the Pd-catalyzed hydrocarboxylation of allenes with CO₂.
5. Used in Ni-catalyzed highly regio- and stereoselective *syn*-hydrocarboxylation of alkynes with carbon dioxide.
6. Catalyst for zinc mediated azide-alkyne ligation to 1,5- and 1,4,5-substituted 1,2,3-triazoles.
7. Used for borylation of aryl halides and for borylzincation of benzynes/terminal alkyne.
8. Used in enantio- and diastereodivergent Ir-co-catalyzed α -allylation of α -hydroxyketones.
9. Catalyst for the asymmetric aza-henry reaction of N-Boc imines and nitroalkanes under ambient conditions.
10. Catalyst used for the asymmetric synthesis of tetrahydrofuran spirooxindoles.



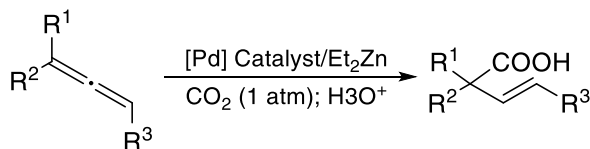
Tech Note (1)
Ref. (1)



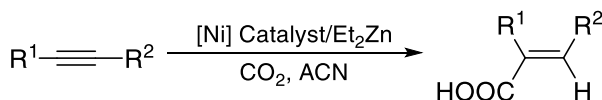
Tech Note (2)
Ref. (2)



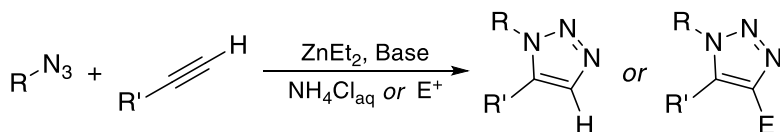
Tech Note (3)
Ref. (3)



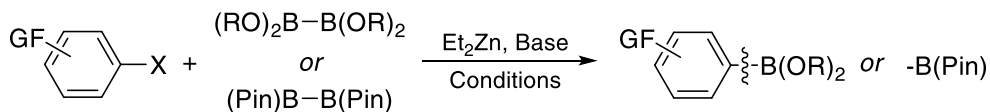
Tech Note (4)
Ref. (4)



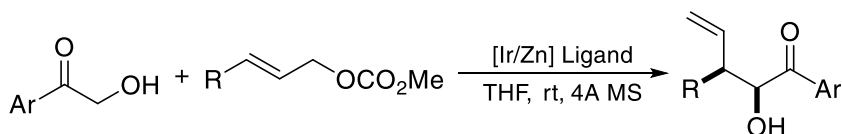
Tech Note (5)
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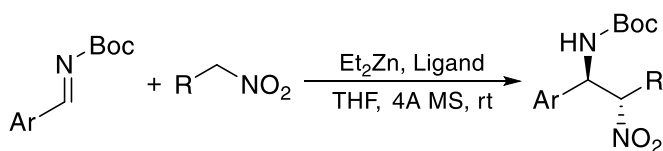
Tech Note (6)
Ref. (6)



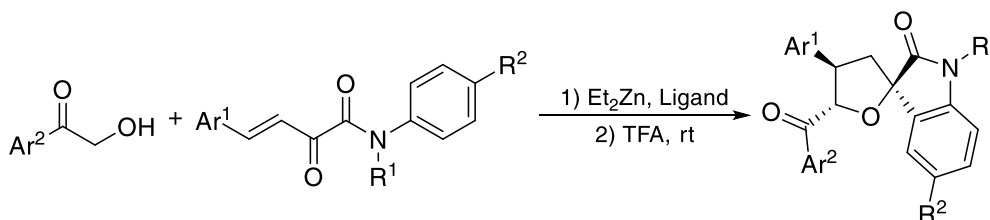
Tech Note (7)
Ref. (7)



Tech Note (8)
Ref. (8)



Tech Note (9)
Ref. (9)



Tech Note (10)
Ref. (10)

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CVD/ALD Applications

Thermal Behavior:

- Melting point: -28°C
- Boiling point: 124°C
- Vapor pressure: ~16 Torr/25°C, table is in [1]
- Decomposition temperature: ~280°C [10]

Technical Notes:

1. ALD/CVD precursor for zinc thin film deposition.

Target Deposit	Deposition Technique	Delivery Temperature	Pressure	Co-reactants	Deposition Temperature	Ref.
ZnO	ALD	40°C	10 Torr	H ₂ O	85°C	2
	ALD	RT	0.4 Torr	H ₂ O	60-300°C	3-4
	ALD	RT	-	H ₂ O/H ₂ O ₂	100°C	5
	ALD	15°C	-	H ₂ O/O ₃	170-300°C	6
	ALD	RT	AP	H ₂ O/H ₂ O ₂ /O ₂	200°C	7
	ALD	RT	-	N ₂ O	600°C	8
	PEALD	RT	3 Torr	^{PL} O ₂	100-200°C	9
ZnO:B	ALD	RT	-	H ₂ O/B(O ⁱ Pr) ₃	150-240°C	10
ZnO:N	ALD	RT	-	NH ₄ OH	100-200°C	11
ZnO:H	ALD	RT	-	H ₂ O/ ^{PL} H ₂	200°C	12
ZnS	ALD	RT	-	MeSNH ₂ →H ₂ S	60°C-400°C	13
	ALD	RT	0.5 Torr	H ₂ S	150°C	14
	PEALD	RT	-	^{PL} H ₂ S	60-300°C	15
	ALD	RT	-	HS(CH ₂) ₅ SH	150°C	16
Zn ₃ N ₂	ALD	RT	-	NH ₃	150-315°C	17
ZnF ₂	ALD	RT	-	HF	1500°C	18

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