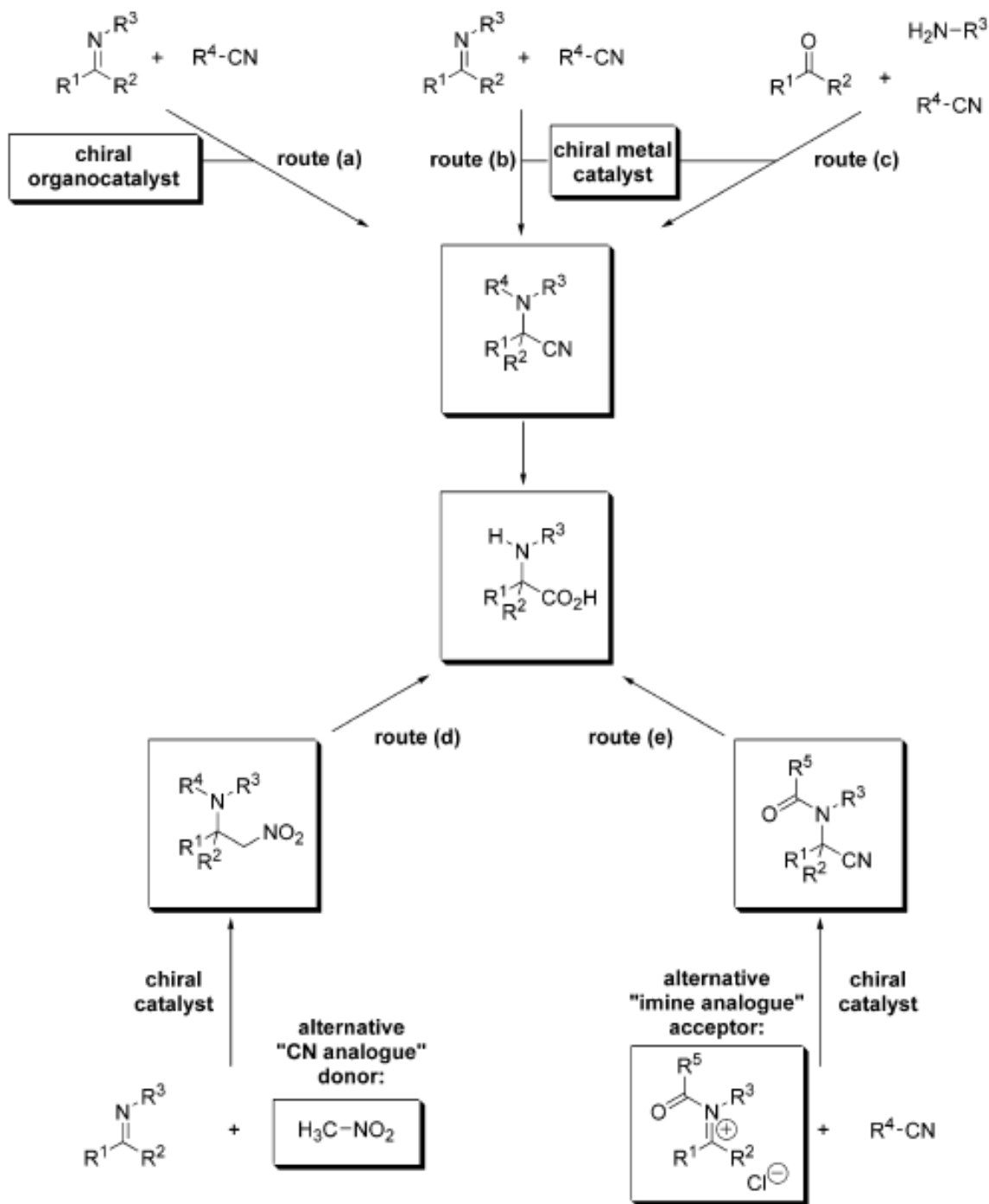
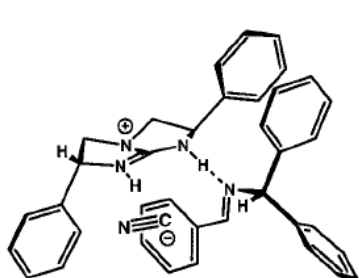
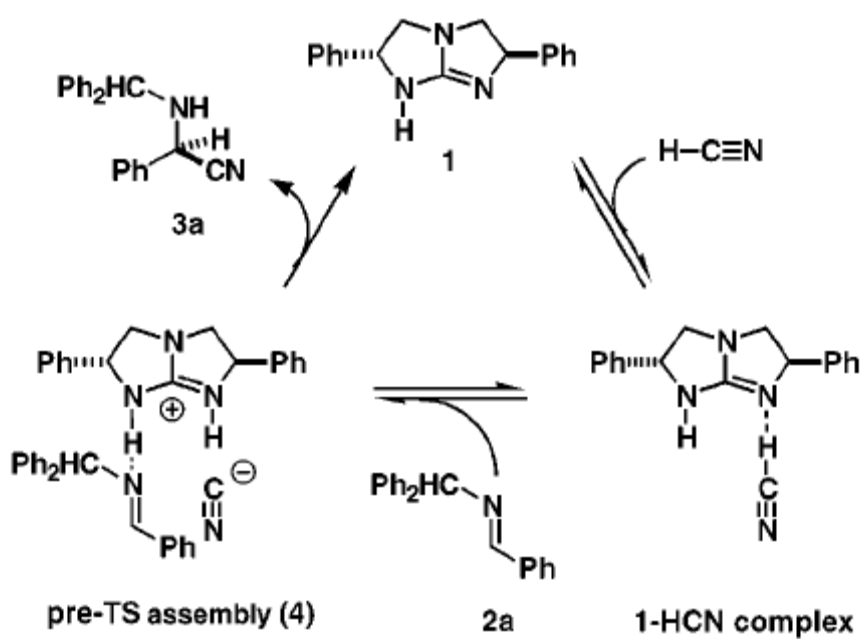


Catalytic Asymmetric Strecker Reactions

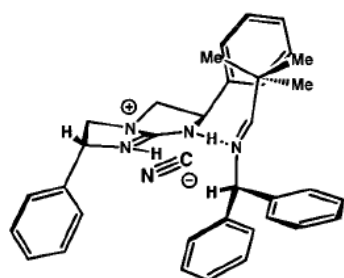
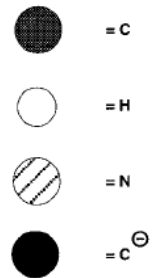
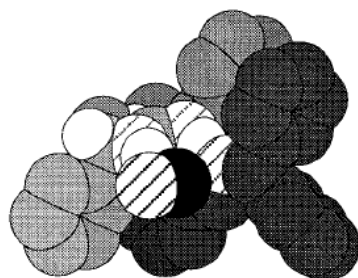


Analogous Syntheses Related to the Catalytic Asymmetric Strecker Reactions

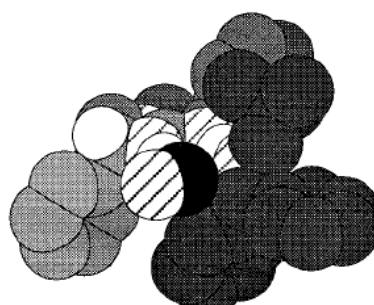
Scheme 2



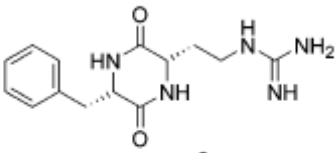
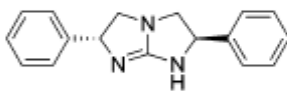
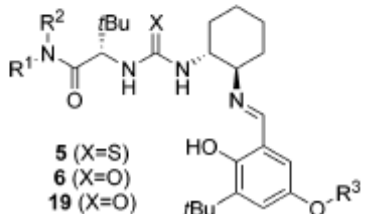
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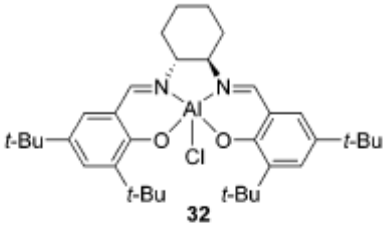
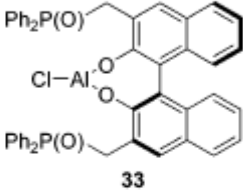
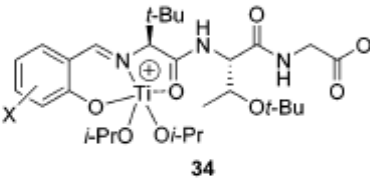

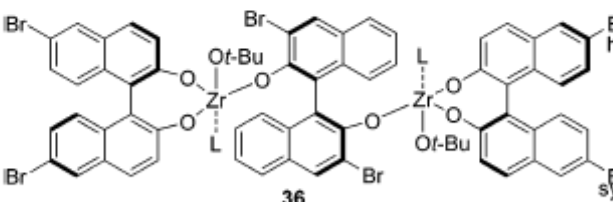
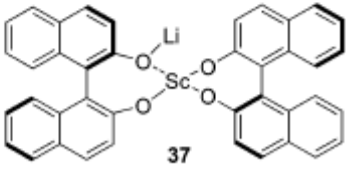
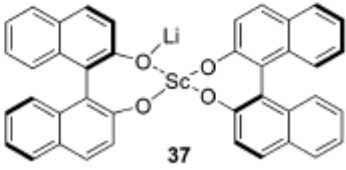
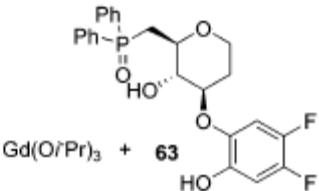
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Summary of the Organocatalytic Strecker Reaction

catalyst structure	substrate range	catalytic amount	range of yield [%]	range of ee [%]
 <p style="text-align: center;">3</p>	aromatic aldimines (not NO ₂ -subst. and heteroatoms)	2 mol%	82-97	80-99
 <p style="text-align: center;">4</p>	aromatic, aliphatic aldimines	10 mol%	80-99	50-88
 <p>5 (X=S) 6 (X=O) 19 (X=O)</p>	aromatic, aliphatic aldimines and ketimines	1-2 mol%	65-98 45-100	77-99 42-95

Summary of the Strecker Reactions Using Chiral Metal Catalysts

catalyst structure	substrate range	catalytic amount	range of yield [%]	range of ee [%]
 <p>32</p>	aromatic aldimines (medium ee for aliphatic aldimines)	5 mol%	91-99	79-95
 <p>33</p>	aromatic, heteroaromatic, α,β -unsaturated, aliphatic aldimines	9 mol%	66-97	70-96
 <p>34</p>	aromatic, α,β -unsaturated, doubly unsaturated, aliphatic aldimines	2.5-15 mol%	93-100 (conversion)	76-97
 <p>35 (R=β-naphthyl)</p>	ketimine (one example)	10 mol%	max. 80-95	max. 45-59
 <p>36</p>	aromatic, heteroaromatic, aliphatic aldimines	5-10 mol%	55-98	74-92
 <p>37</p>	aromatic aldimines, ketimine (one example)	1-5 mol%	76-100	84-94
 <p>38</p>	direct one-pot synthesis starting from aldehydes and amines	10 mol%	max. 80-95 max. 70	86-95 45-55
 <p>$\text{Gd}(\text{O}^i\text{Pr})_3 + \mathbf{63}$</p>	aromatic, α,β -unsaturated, aliphatic ketimines	2.5-10 mol%	67-99	51-98