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(12)(KR)
(A)(51) 。 Int. Cl. ⁷
C07C 49/00(11)
(43)2002 - 0058129
2002 07 12(21) 10 - 2000 - 0085128
(22) 2000 12 29

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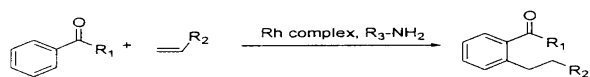
S. Murai
가

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$$\frac{1}{2} \leq \frac{1}{2} + \frac{1}{2} \leq \frac{1}{2} + \frac{1}{2} = 1$$

1

1


$$(R_1, R_2, R_3)$$

가 .

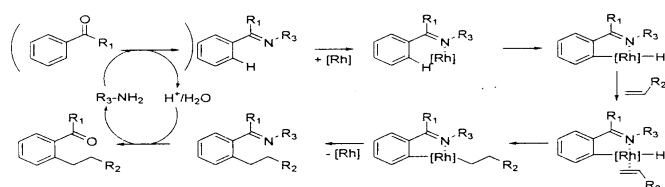
2

(, 1가)가 , -

가 . 가

가 .

2



(R_1 , R_2 , R_3 , [Rh] 1가)

가 , $[Rh(C_8H_{14})_2Cl]_2$ 1가 , $RhCl_3 \cdot H_2O$
3가 , $(PPh_3)_3 RhCl$ 가 , 1가
3가

, , , tert - 가 .

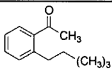
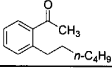
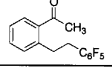
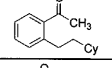
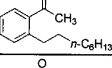
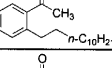
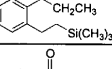
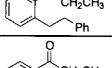
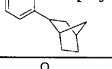
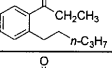
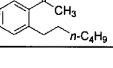
100 150

2 4

[1]

500Mℓ 68 mg (0.32 mmol) N - - (1 - -) - , 6 mg (0.0065 mmol)
(1) , 27 mg (0.32 mmol) 3,3 - - 1 - , 100 mg
1 N HCl 10 ml 가 150 2 가 . , 3 ml THF ,
12 가 . Et₂O CH₂Cl₂ 3
MgSO₄ ,
(= 5 : 2) 2 - (3,3 -) - 1 -
97 % (64 mg; 0.31 mmol)
1 .

[1]

올레핀	생성물	수율(%)	비고
3,3-디메틸-1-부텐		97	
1-헥센		94	1-헥센 1.6 mmol 사용
1,2,3,4,5-펜타플루오르스티렌		91	
비닐시클로헥산		68	
1-옥텐		71	1-옥텐 1.6 mmol 사용
1-도데센		82	1-도데센 1.6 mmol 사용
트리메틸비닐 실란		96	
스티렌		41	
노보르닐렌		92	
2-펜텐		95	1-펜텐 1.6 mmol 사용
2-헥산		42	1-헥센 1.6 mmol 사용

[2]

500Mℓ 63 mg (0.32 mmol) N - (1 -) - , 6 mg (0.0065 mmol)
 (1) , 27 mg (0.32 mmol) 3,3 - - 1 - , 100 mg
 150 2 가 . 3 ml THF ,
 1 N HCl 10 ml 가 12 가 . Et₂O CH₂Cl₂ 3
 , MgSO₄ ,
 (= 5 : 2) 2 - (3,3 -) - 1 - 85
 % (56 mg; 0.27 mmol) . 2

[2]

	캐티민(반응물)	수율(%)
1		97
2		85
3		83
4		7

[3]

1 3 0.32mmol 32mg(0.32mmol)
 , 3 .

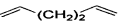
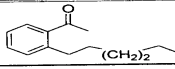
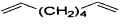
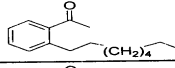
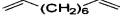
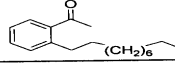
[3]

	캐티민	생성물 및 수율
1		 92 %
2		 81 % 12 %
3		 79 % 12 %
4		 82 % 9 %
5		 57 % 16 %

[4]

500Mℓ 68 mg (0.32 mmol) N - (1 - -) - , 6 mg (0.0065 mmol)
 (1) , 3.24 mmol , 100 mg ,
 150 2 가 , 3 ml THF , 1 N HCl 10 ml
 가 12 가 . Et₂O CH₂Cl₂ 3 , Mg
 SO₄ , Pd/C
 (= 5 : 2) 4
 4

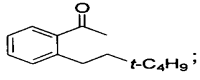
[4]

	diene	생성물	수율(%)
1			92
2			97
3			92

[5]

1 5 1
 , 5 .

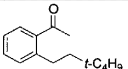
[5]

	온도 (℃)	 GC Yield (%)
1	80	12
2	100	53
3	130	81
4	150	86
5	170	83

[6]

500Mℓ 26 mg (0.22 mmol) , 12 mg (0.11 mmol) , 10.0 mg (0.011
 mmol) (1) , 91 mg (1.1 mmol) 3,3 - 1 - , 50 mg
 , 150 2 가 , 2 - (3,3
) - 1 - (GC) 가 85% .
 6

[6]

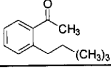
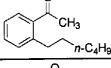
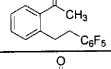
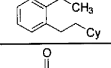
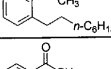
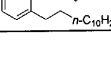
	벤질아민의 첨가량 (mol%)	 GC Yield (%)	비고
1	0	0	
2	30	43	
3	40	72	
4	50	85	7 %의 di-alkylation 생성물 포함
5	60	29	
6	70	33	
7	100	27	

[7]

500Mℓ, 26 mg (0.22 mmol), 12 mg (0.11 mmol), 10.0 mg (0.011 mmol)
 mmol) (1), 91 mg (1.1 mmol) 3,3 - 1 -
 150 6 가, 3 ml THF, 1 N HCl 10 m
 I 가 12 가, Et₂O CH₂Cl₂,
 MgSO₄
 (= 5 : 2) 2 - (3,3) - 1 - 95 % (42 mg; 0.21 mmol)
 ol)

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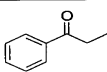
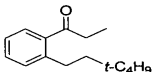
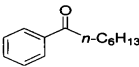
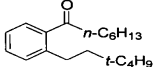


[7]

올레핀	생성물	수율(%)
3,3-디메틸-1-부텐		95
1-헥센		72
1,2,3,4,5-펜타플루오르스티렌		68
비닐시클로헥산		89
1-옥텐		15
1-도데센		17

[8]

8 0.22mmol 91mg(1.1mmol) 3,3 - - 1 -
7 , 8 .

[8]

케톤	생성물	수율(%)
		86
		72
		87

(57)

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, 2

3.

1 2 , 1가 , 3가 ,
가 2 -

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