

Metathesis of alkenes using ruthenium carbene complexes

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Hons. B.Sc. (PU vir CHO)



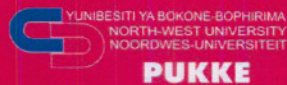
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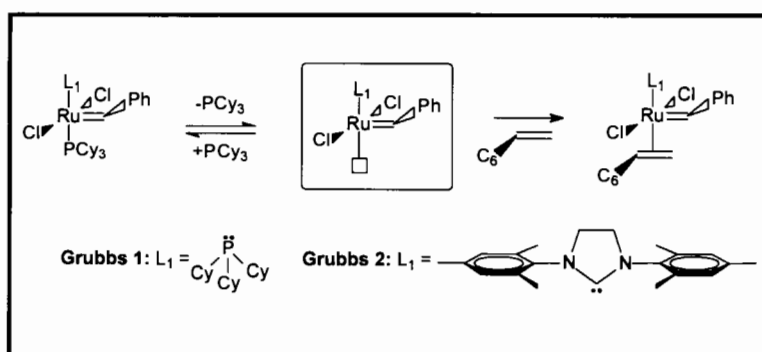
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LIST OF ABBREVIATIONS AND STRUCTURES

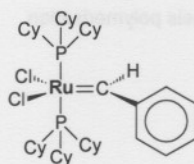
Abbreviations

ADMET	Acyclic dienes metathesis polymerisation
BnO	Benzyloxyde
BOC	t-Butoxycarbonyl
CM	Cross metathesis
DCDP	Dicyclopentadiene
DME	Dimethoxyethane
EtOH	Ethanol
FG	Functional groups
GC	Gas chromatography
$^1\text{H-NMR}$	Proton nuclear magnetic resonance spectroscopy
Hx	Hexyl group
NAr	Nitroaryl
NHC	N-heterocyclic carbene
IP	Isomerisation products
NMR	Nuclear magnetic resonance
OP	Oligomerisation products
PCy ₃	Tricyclohexylphosphine
PhCl	Chlorobenzene
PMP	Primary metathesis products
RCM	Ring-closing metathesis
ROMP	Ring-opening metathesis polymerisation
SHOP	Shell Higher Olefin Process
SMP	Secondary metathesis products
SM	Self metathesis
TBDMS	Tert-butyldimethylsilyl
TfOH	Trifluoromethanesulfonic acid
TMS	Trimethylsilane

Structures

Grubbs first generation

Benzylidene-bis(tricyclohexylphosphine)dichlororuthenium

 $[\text{Cl}_2(\text{PCy}_3)_2\text{Ru}(\text{=CHPh})]$ 

Grubbs second generation

[1,3-Bis-(2,4,6-trimethylphenyl)-2-imidazolidinylidene)dichloro(phenylmethylene)-
(tricyclohexylphosphine)ruthenium] $[\text{Cl}_2(\text{PCy}_3)(\text{IMes})\text{Ru}(\text{=CHPh})]$ 