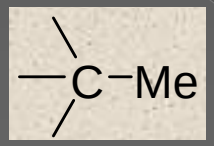
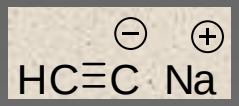
ORGANOMETALİK BİLEŞİKLER

Genel Formül: **R-Me** **(Me=metal)**

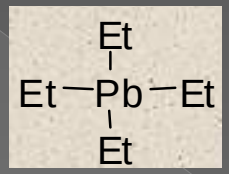
İçerdikleri  bağı:

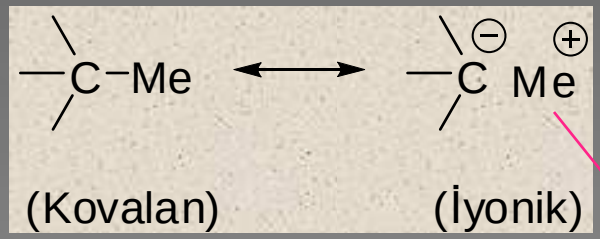
%100 iyonik



%100 Kovalan

$(Et)_4Pb$ ⇒





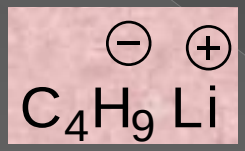
Bilinen en kuvvetli baz

ORGANOMETALİK BİLEŞİKLER

İyonik karakter:

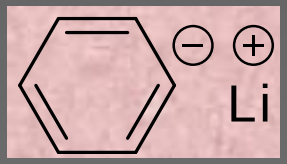
%47	C-Na	Çok reaktif, çok polar
%43	C-Li	
%35	C-Mg	En çok kullanılan reaktifler
%22	C-Al	
%18	C-Zn	Daha az reaktif bileşikler
%15	C-Cd	

Adlandırma



Bütil lityum

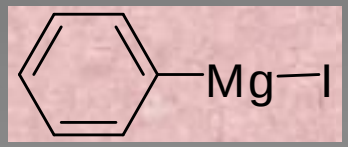
Sodyum asetilenür



Fenil lityum

Alkil magnezyum halojenür

Etil magnezyum bromür



Fenil magnezyum iyodür

Elde Edilişleri

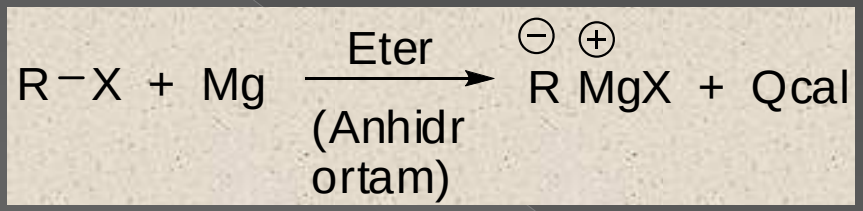
Çok reaktif maddelerdir. Saklama sorununu önlemek için çoğunlukla kullanılacakları zaman hazırlanabilirler:

I) Hidrojen ve metal yer değiştirmesi ile:

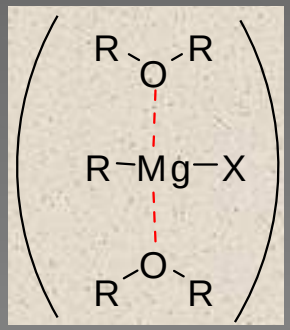
Elde Edilişleri

I) Halojenli türevlerden hareketle:

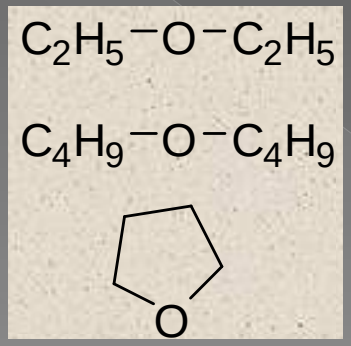
a)



Susuz, kuru ortam ve N_2 atmosferi gerekli!!!
(Organomagnezyenler O_2, CO_2, H_2O ile parçalanırlar)



Organomagnezyenlerin stabilitesi, eteroksit çözücü içinde sağlanabilir.



Dietil eter

Dibütil eter

Tetrahidrofuran (THF)

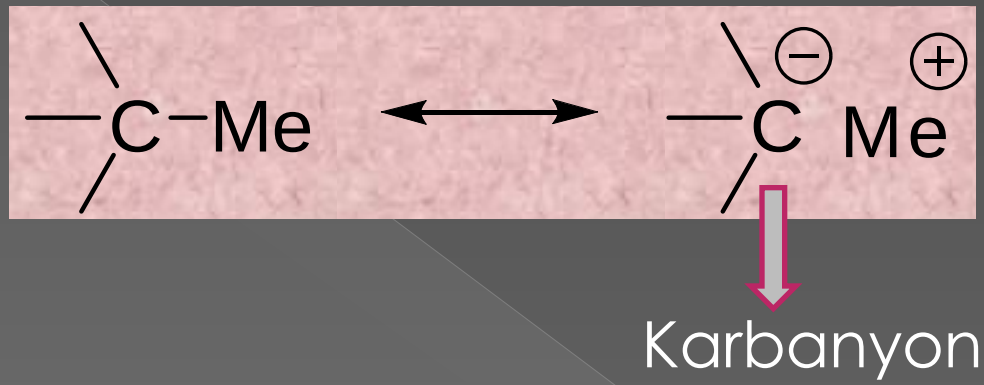
Elde Edilişleri

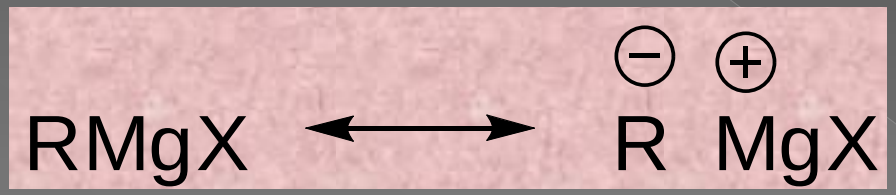
b) $C_4H_9Br + 2Li \longrightarrow C_4H_9Li + LiBr$

c) $RMgX + ZnCl_2 \longrightarrow RZnCl + MgXCl$

(Reformatsky)

Kimyasal özellikleri

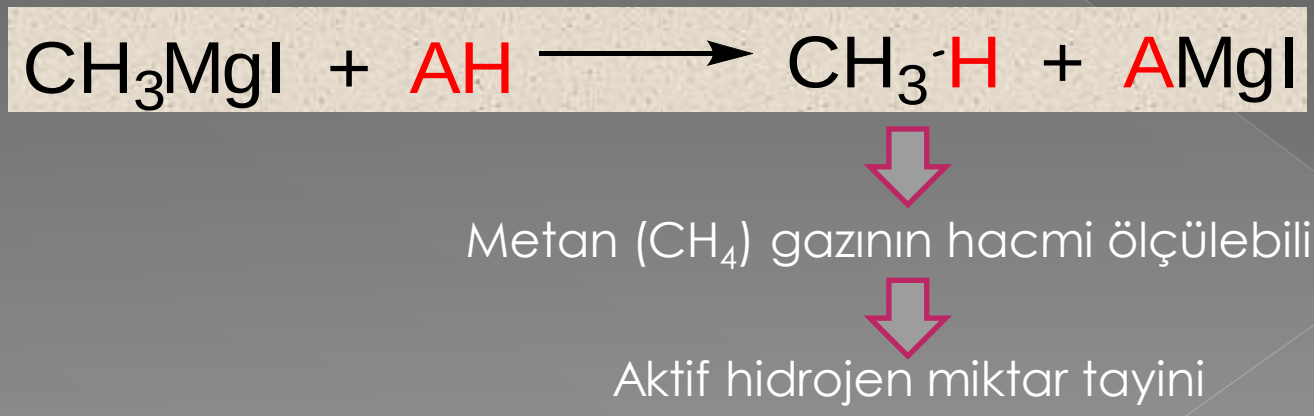




Kimyasal Özellikleri

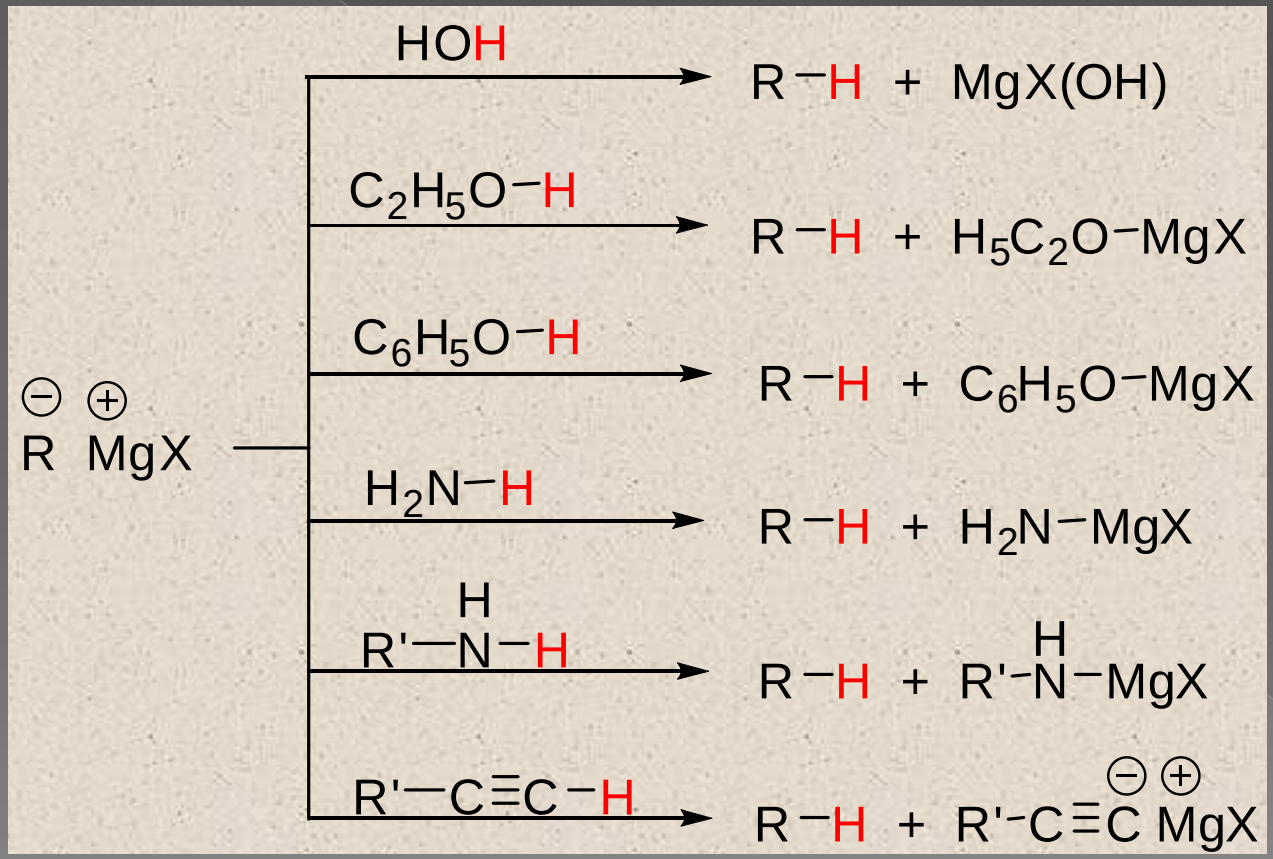
I-Sübstitüsyon reaksiyonlarına örnekler:

a) Mobil "H" ile sübstitüsyon



Kimyasal Özellikleri

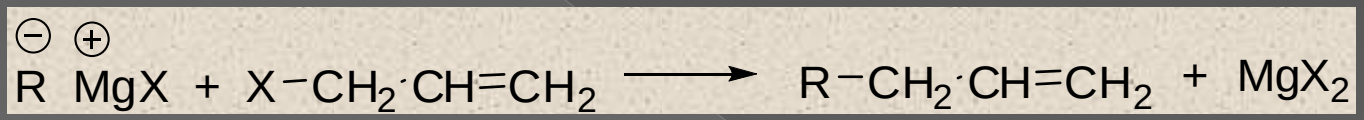
Aktif (mobil) hidrojen ile reaks. örnekleri:

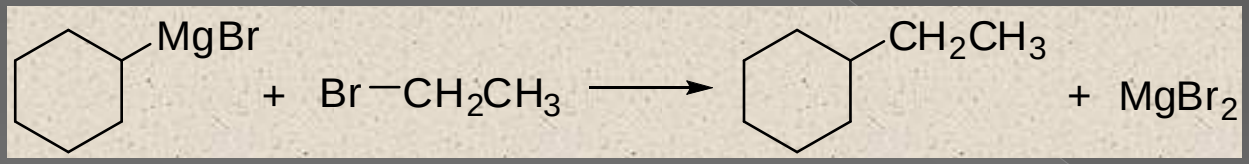


(Zerevitinoff Reaks.)

Kimyasal Özellikleri

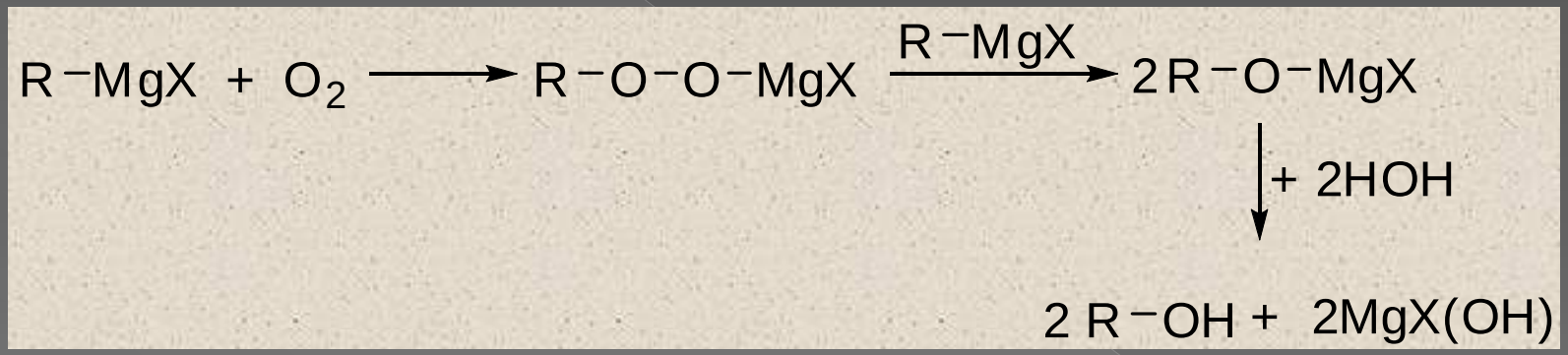
b) Halojenli türevlerle reaksiyon





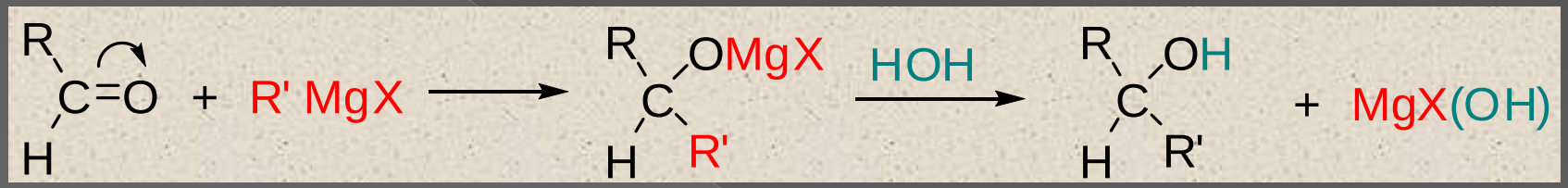
Kimyasal Özellikleri

c) O_2 ile Alkol Sentezi

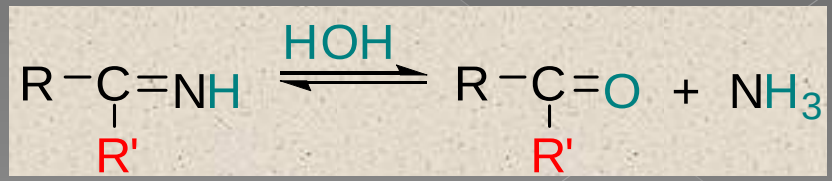


Kimyasal Özellikleri

II) Addisyon Reaksiyonları (Nükleofilik Addisyon)



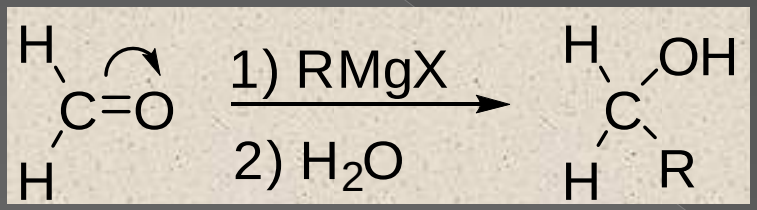
(Alkol)



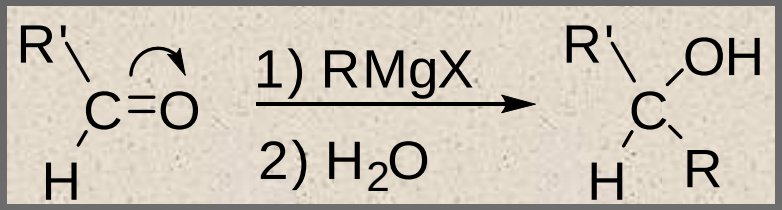
(İmin) (Keton)

Kimyasal Özellikleri

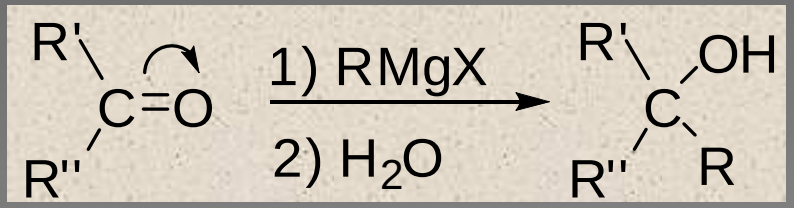
II) Addisyon Reaksiyonları (Nükleofilik Addisyon)



(Primer Alkol)



(Sekonder Alkol)

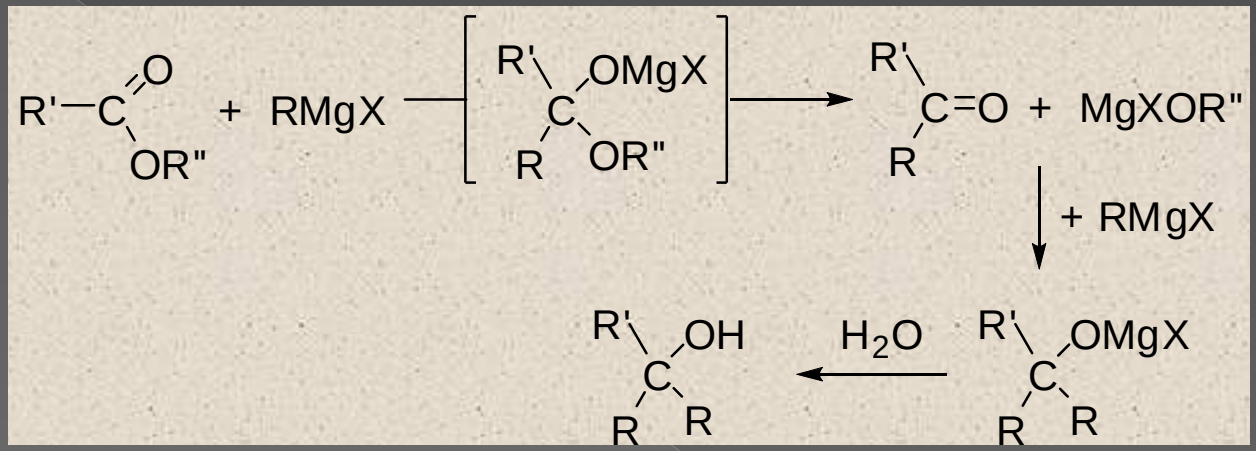


(Tersiyer Alkol)

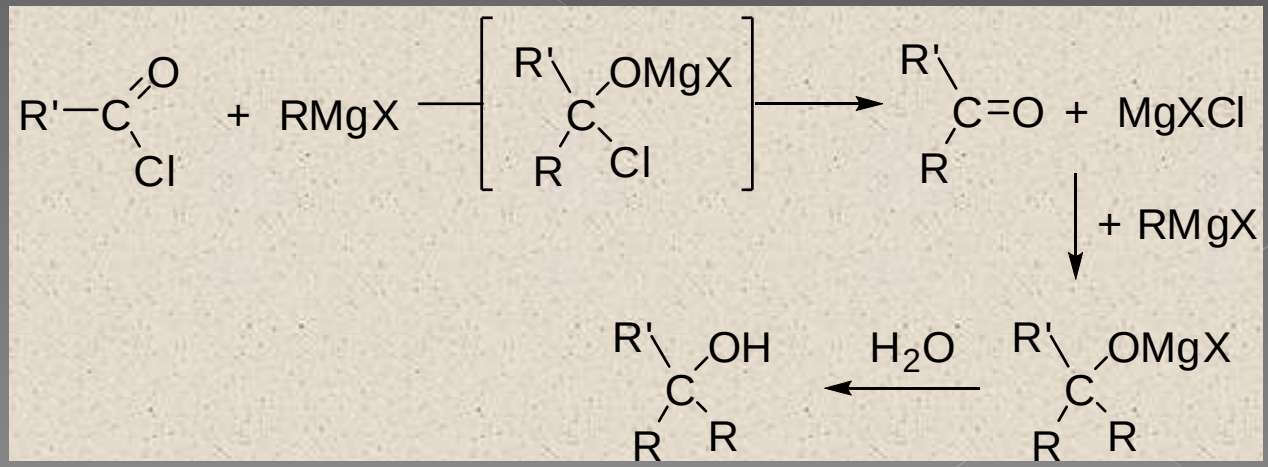
Kimyasal Özellikleri

II) Addisyon Reaksiyonları (Nükleofilik Addisyon)

Ester ile;



Açil halojenürle;

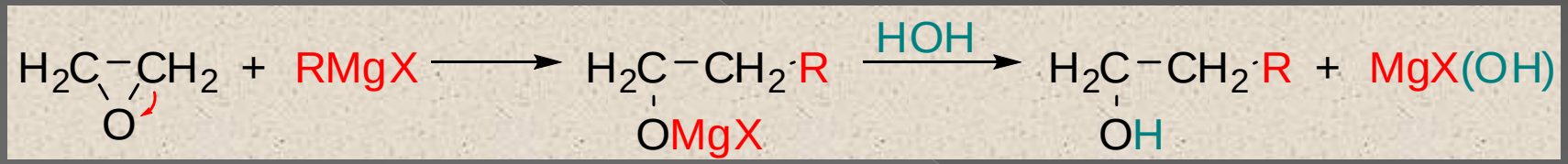


(Tersiyer alkol)

Kimyasal Özellikleri

II) Addisyon Reaksiyonları (Nükleofilik Addisyon)

Oksiran (Epoksit)Halkasına addisyon;



Hayatta başarılar….