

## 801300715650 ORGANOMETALİK KİMYA II DERS NOTU

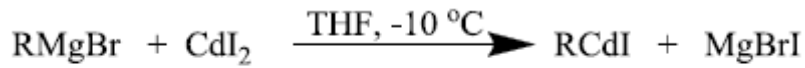
Prof. Dr. Tahir Daşkapan  
Ankara Üniversitesi Fen Fakültesi  
Kimya Bölümü

### 14. HAFTA

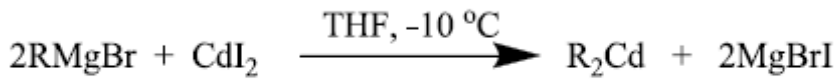
#### ORGANOKADMİYUM BİLEŞİKLERİ

##### HAZIRLANMALARI

###### Transmetalleme ile



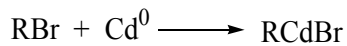
R = Ar, alkil, sikloalkil, benzil



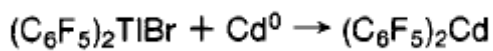
R = Ar, alkil, sikloalkil, benzil



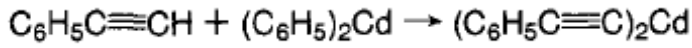
###### Yükseltgen metalleme ile



###### Bir organometalin kadmiyum ile reaksiyonu



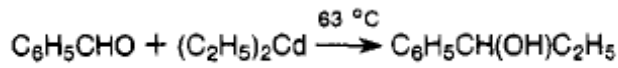
Metalleme ile



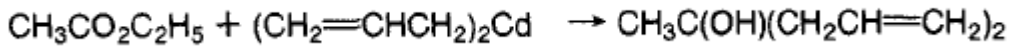
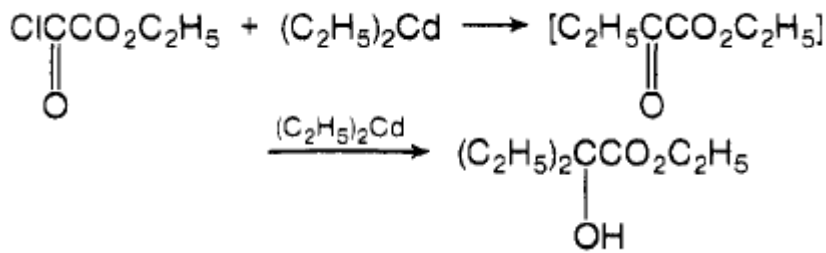
## ORGANOKADMIYUMLARLA REAKSİYONLAR

Organokadmiyum bileşikleri, düşük reaktivlikleri nedeniyle organik yapıda bulunan hassas gruplarla etkileşmez, dolayısıyla yapılarında hassas fonksiyonlu gruplar içeren moleküllerin sentezine imkan verebilirler.

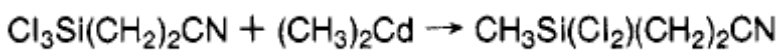
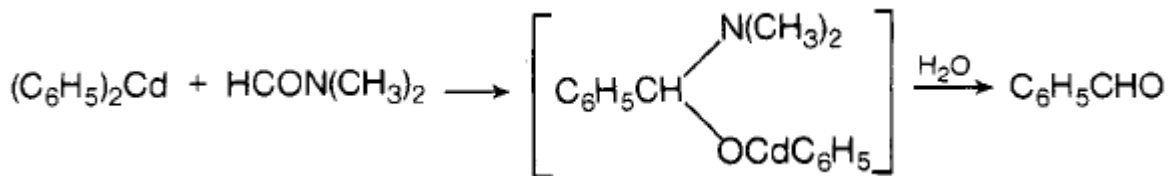
### 1. Aldehit ve ketonlarla



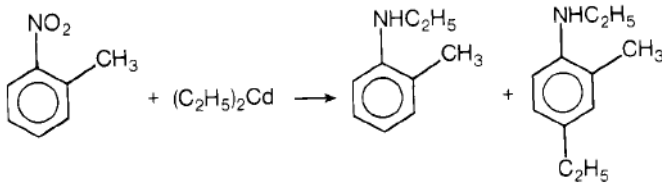
### 2. Karboksilik asit türevleri ile



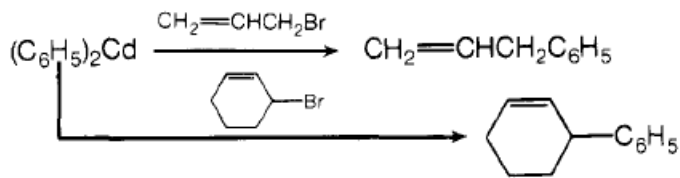
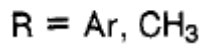
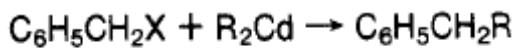
Amidler, laktamlar ve nitrillerle



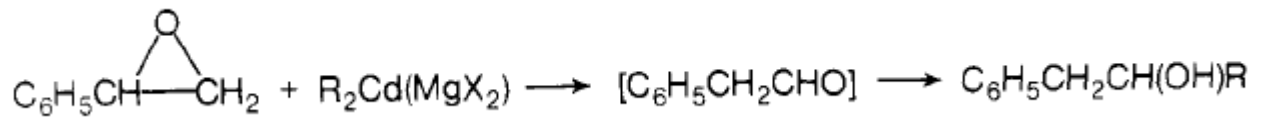
### Nitro bileşikleri ile



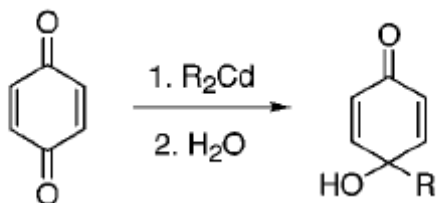
### Organik halojen bileşikleriyle

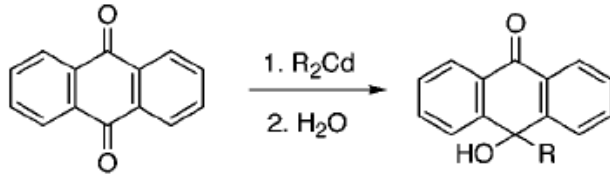
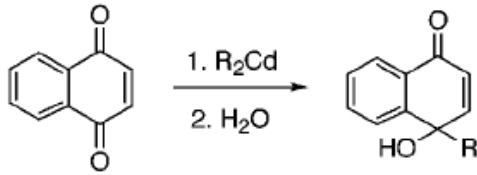


### Epoksitlerle

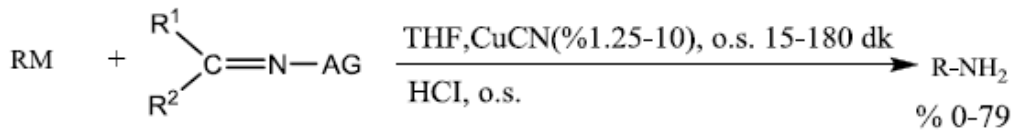


### Kinonların alkillenmesi





### Elektrofilik aminasyon



**M** : CdI, 1/2 Cd

**R** : C<sub>6</sub>H<sub>5</sub>, 4-CH<sub>3</sub>OC<sub>6</sub>H<sub>4</sub>, 3-CH<sub>3</sub>OC<sub>6</sub>H<sub>4</sub>, 3,5-(MeO)<sub>2</sub>C<sub>6</sub>H<sub>3</sub>, 4-CH<sub>3</sub>S C<sub>6</sub>H<sub>4</sub>, 2,5-(CH<sub>3</sub>)<sub>2</sub>C<sub>6</sub>H<sub>3</sub>, 4-Cl-2-MeC<sub>6</sub>H<sub>3</sub>, 4-FC<sub>6</sub>H<sub>4</sub>, 4-ClC<sub>6</sub>H<sub>4</sub>, 3-ClC<sub>6</sub>H<sub>4</sub>, 3,5-(Cl)<sub>2</sub>C<sub>6</sub>H<sub>3</sub>, 3-F<sub>3</sub>CC<sub>6</sub>H<sub>4</sub>, s-C<sub>6</sub>H<sub>11</sub>, n-C<sub>4</sub>H<sub>9</sub>, C<sub>6</sub>H<sub>5</sub>CH<sub>2</sub>, (CH<sub>3</sub>)<sub>2</sub>CH, 1-Naftil

**R<sup>1</sup>, R<sup>2</sup>** : CH<sub>3</sub>, CH<sub>3</sub>; CH<sub>3</sub>, CH<sub>2</sub>CH<sub>3</sub>; CH<sub>3</sub>, CH<sub>2</sub>CH(CH<sub>3</sub>)<sub>2</sub>; CH<sub>3</sub>, Ph; CH<sub>3</sub>, 4-FPh; CF<sub>3</sub>, CH<sub>3</sub>;

**AG** : OSO<sub>2</sub>(2,4,6-(Me)<sub>3</sub>Ph), OSO<sub>2</sub>(4-FPh), OSO<sub>2</sub>(4-MeOPh), OSO<sub>2</sub>CH<sub>3</sub>, OSO<sub>2</sub>Ph, OSO<sub>2</sub>(4-MePh), OSO<sub>2</sub>(2,4,6 tri(i-Pr)<sub>3</sub>Ph

Ayrıca diarilkadmiyum reaktifleri, DNA yapısındaki ilgili fosforamitleri modifiye edebilmek için DNA'ya çokhalkalı aromatik grupların sokulmasında kullanılmıştır.

