(PMPCP)Ir(ethylene)

--- [Ir] 2 mM + H<sup>+</sup>BEA 0.15 g

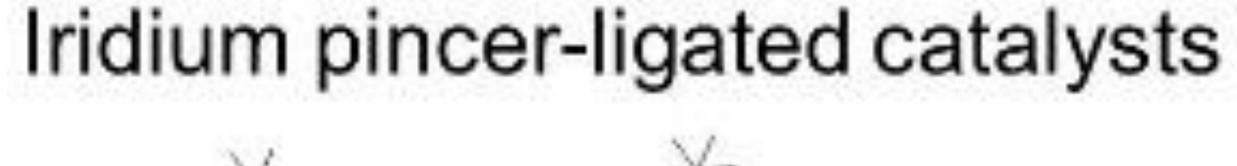
[Ir] 2 mM + H<sup>+</sup>BEA 0.30 g

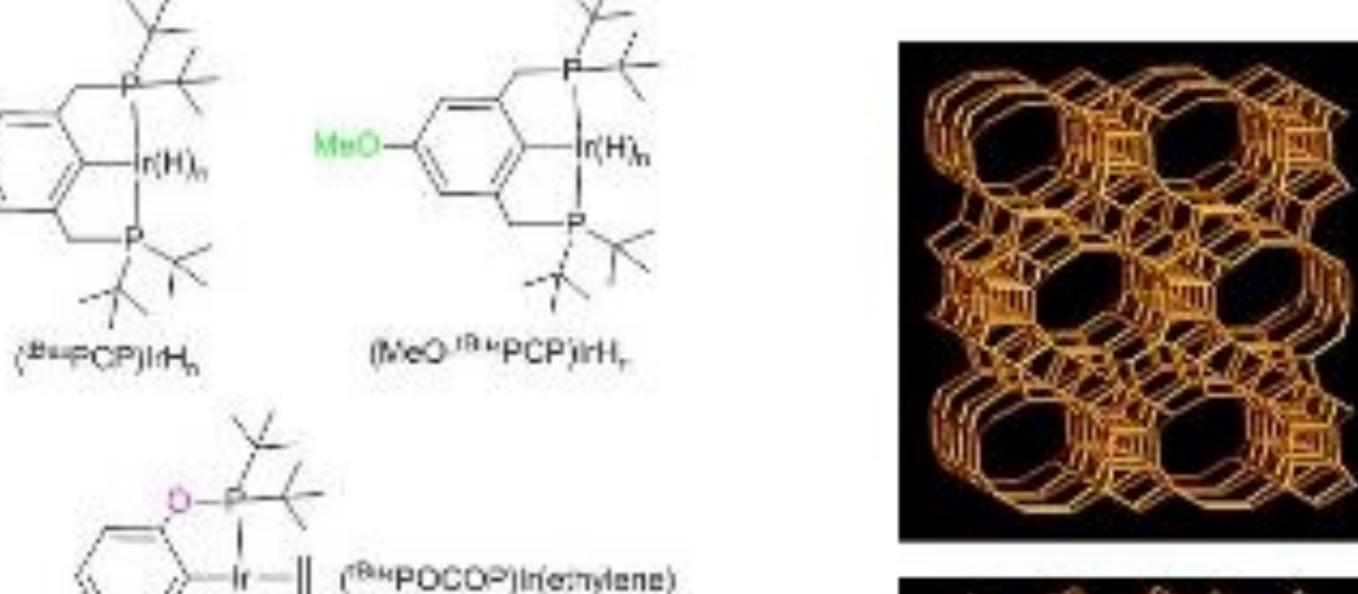
-- [Ir] 4 mM + H+BEA 0.58 g

--- [Ir] 2 mM + H<sup>+</sup>BEA 0.58 g

# New Tandem Catalytic System

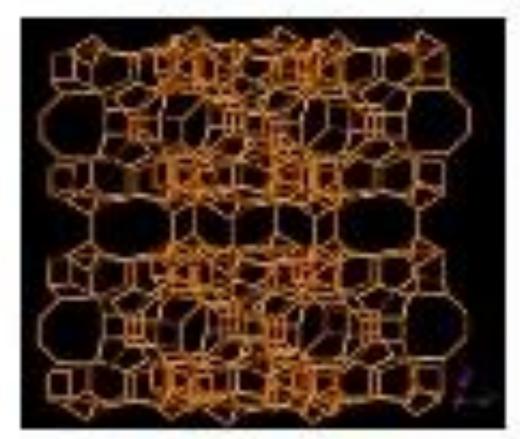
### **Experimental Results**





BEA\* (Beta\*)
3D Channel System
12 MR x 12 MR

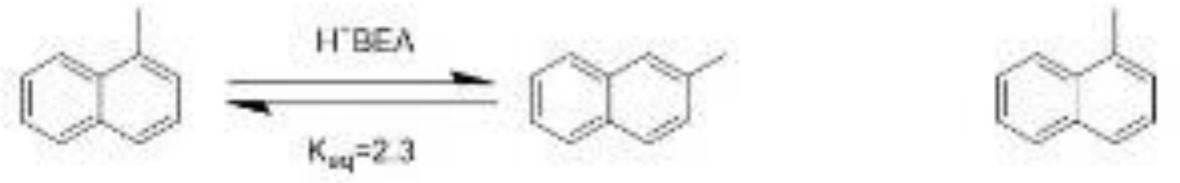
Zeolite

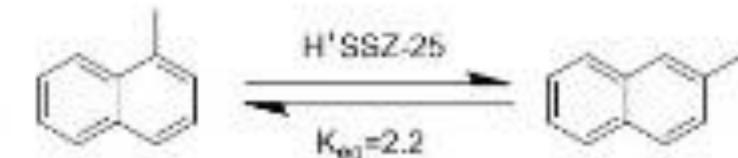


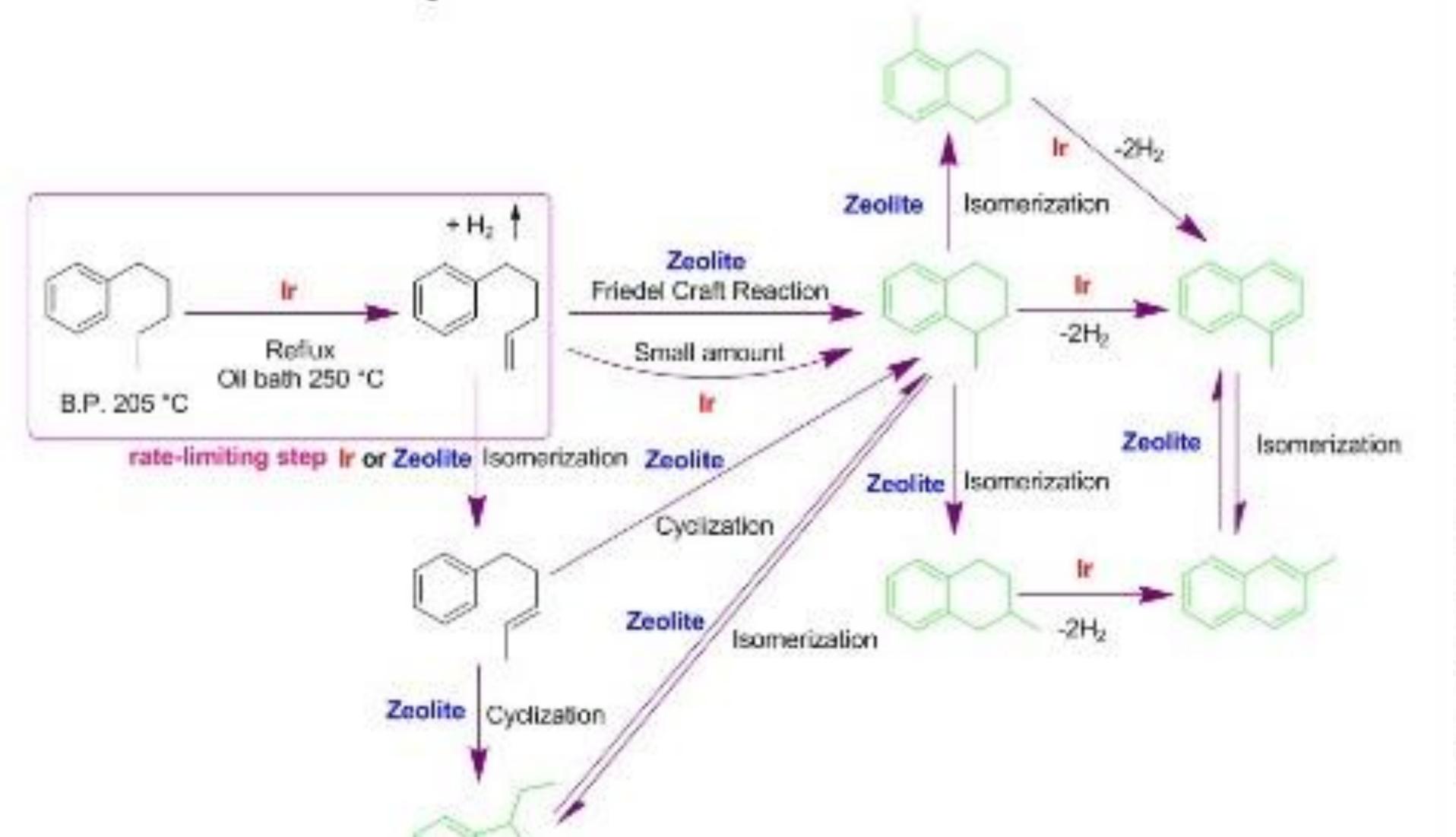
MWW (SSZ-25) 2D Channel System 10 MR x 10 MR

\$ 2000

## Zeolite Catalyzed Isomerization of Methylnaphthalene







**Proposed Reaction Route** 

#### Comparing Ir and Zeolite loading Selectivity=[cyclized products]/[consumed reactant] x100% 250 °C oil bath 2.7 mL 5.8 M Selectivity Total Cyclized Products ₹ 5500 --- [Ir] 4 mM + H BEA 0.58 g ± 5000 --- [Ir] 2 mM + H\*BEA 0.58 g [Ir] 2 mM + H BEA 0.30 g 출 4500 · --- [lr] 2 mM + H BEA 0.15 g ₹ 4000 -3500 O 3000 -월 2500 -

#### Comparison of Different Ir and Zeolite Catalysts

