Laboratory Report (109 chem)

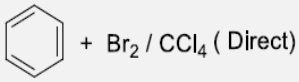
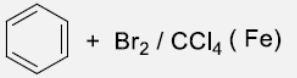
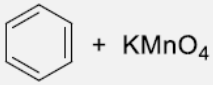
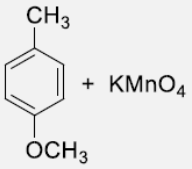
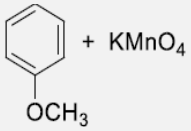
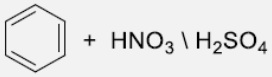
Experiment 3&4: Hydrocarbons (Aliphatic & Aromatics)

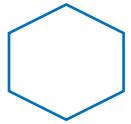
Student Names: …… Section No: ……

Part (1): Hydrocarbons (Aliphatic)

Test	Observation	Result	Chemical equation
 + Br_2 / CCl_4 (light or UV.)	In sun light, orange-red color of bromine disappeared		
 + Br_2 / CCl_4 (Direct)	orange-red color of bromine disappeared.		
 + $KMnO_4$ 0.5ml cyclohexene+1drop $KMnO_4$			

Part (2): Hydrocarbons (Aromatics)

Test	Observation	Result	Chemical equation
 + Br_2 / CCl_4 (Direct)	No reaction		
 + Br_2 / CCl_4 (Fe)	The color of bromine disappeared		
 + $KMnO_4$			
 + $KMnO_4$	The purple color of $KMnO_4$ disappeared with formation of brown precipitate		
 + $KMnO_4$	No reaction		
 + HNO_3 \ H_2SO_4	Appearance of faint yellow color		

Name	class	Functional group	Molecular formula	Structure formula
cyclohexane	Hydrocarbons (Aliphatic)	C_nH_{2n}	C_6H_{12}	
cyclohexene		C_nH_{2n-2}	C_6H_{10}	
Benzene	Hydrocarbons (Aromatics)	Arenes	C_6H_6