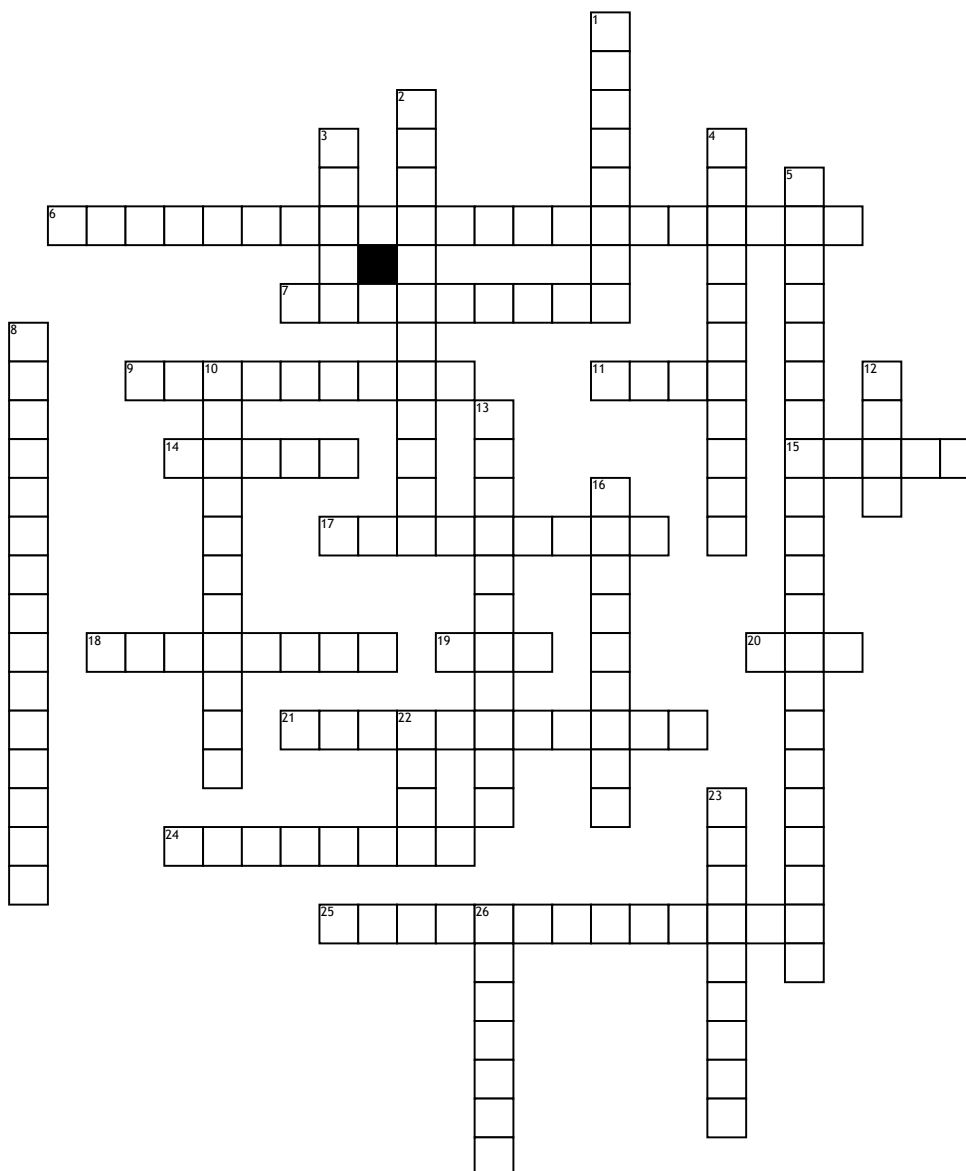


Name: _____

Date: _____

Aromatic Chemistry



Across

6. Which colourless liquid is used as a dehydrating agent in the preparation of nitriles from primary amides?

7. Reaction with molecular bromine requires no _____ / _____.

9. What is the electrophile used in the nitration reaction? (____ ion)

11. In a slow reaction of a mono substituted benzene with an electron withdrawing group attached, what product would be formed?

14. The heteroaromatic (1 heteroatom) structure that begins with F is _____.

15. At which position does indole primarily undergo electrophilic substitution?

17. What describes the reaction between the diazonium ion reacting with cuprous salts?

18. Chains of various lengths can be taken for oxidation in benzyl chemistry. In the reaction between KMnO_4 and benzene side chain there should be an element always present next to the benzoic carbon so the reaction would work and the product would be benzoic acid. What is it?

19. How many pi electrons does nitrobenzene have?

20. How many total pi electrons does pyrrole have?

21. Which reaction can be used to reduce a carbonyl group using basic conditions to form an alkylation product?

24. Thiocarbonyls tend to be _____.

25. What effect can separation of charge in resonance forms cause?

Down

1. How would you describe the alkyl added to a benzene ring through Friedel-Crafts alkylation?

2. What is the only type of reaction that benzene can undergo?

3. Indole has a preference for the _____ position.

4. Which intermediate is produced during the electrophilic substitution on aromatic hydrocarbons?

5. In the chemistry of mono-substituted benzene the -meta directing reaction is more preferable than ortho/para. They both have three resonance forms. What's the main difference between meta and ortho/para resonance forms?

8. Which type of conjugation system in chemistry has an effect on reactivity and molecular electronic transitions?

10. Identify the property that consists of dynamic isomerism?

12. What substitution reaction is favoured when the starting compound is anisole?

13. Name the property which requires a cyclic system be fully conjugated?

16. What is the name of the property which enables to identify the stability of a product?

22. Pyridine is toxic and _____ smelling.

23. Benzene diazonium chloride reaction with fluoroboric acid at 0°C gives fluoro benzene. What is this reaction called?

26. What ion is required as the electrophile for a Friedel-Crafts acylation reaction?