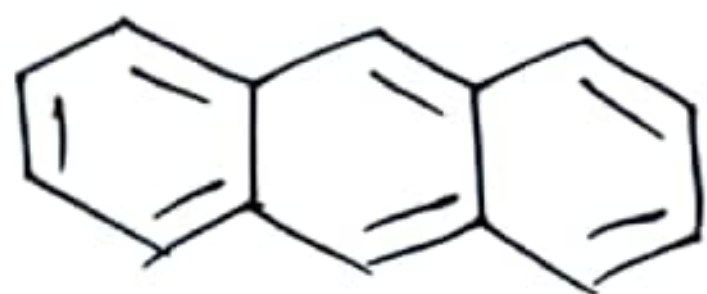


DEPTH OF BIOLOGY

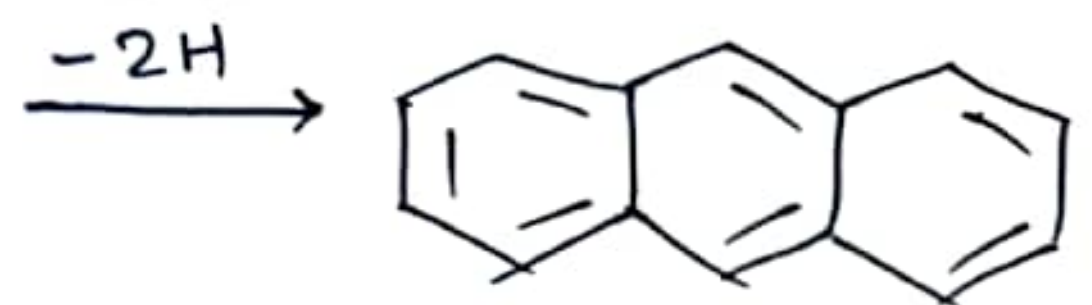
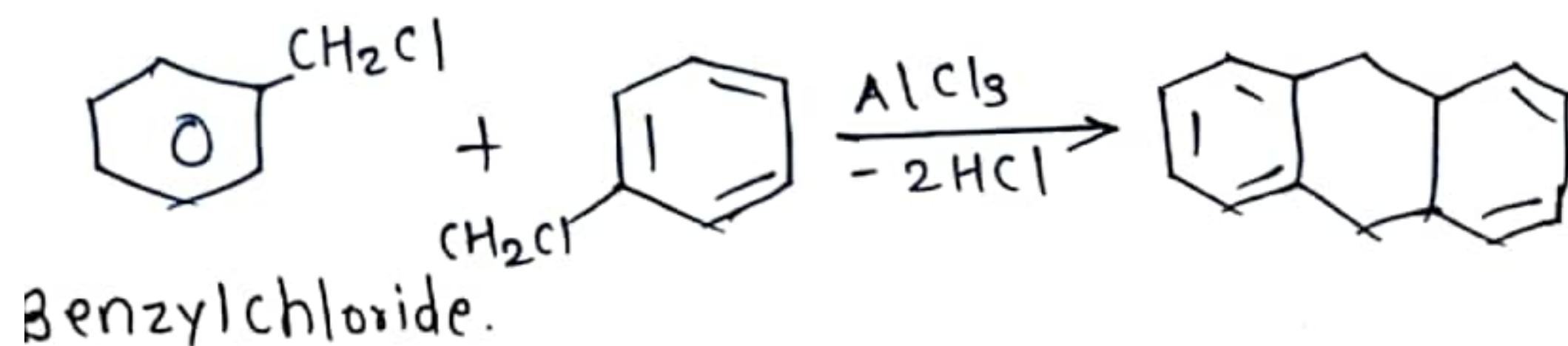
Anthracene:

- Tricyclic System containing of Benzene Ring fused together in a Linear pattern.



Synthesis: [DEPTH OF BIOLOGY]

(a) By Friedel Craft Reaction:



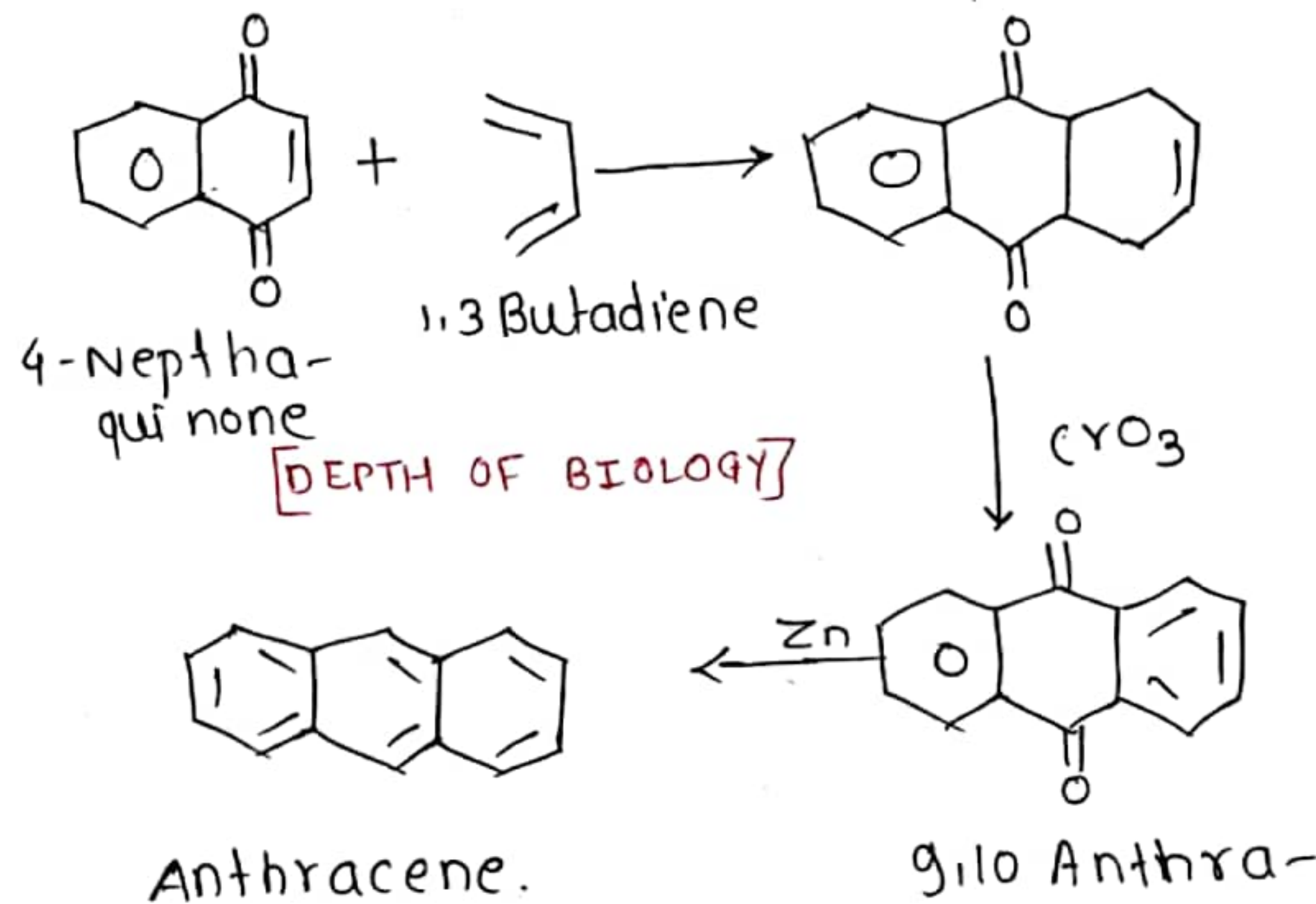
Anthracene.

[DEPTH OF BIOLOGY]

DEPTH OF BIOLOGY

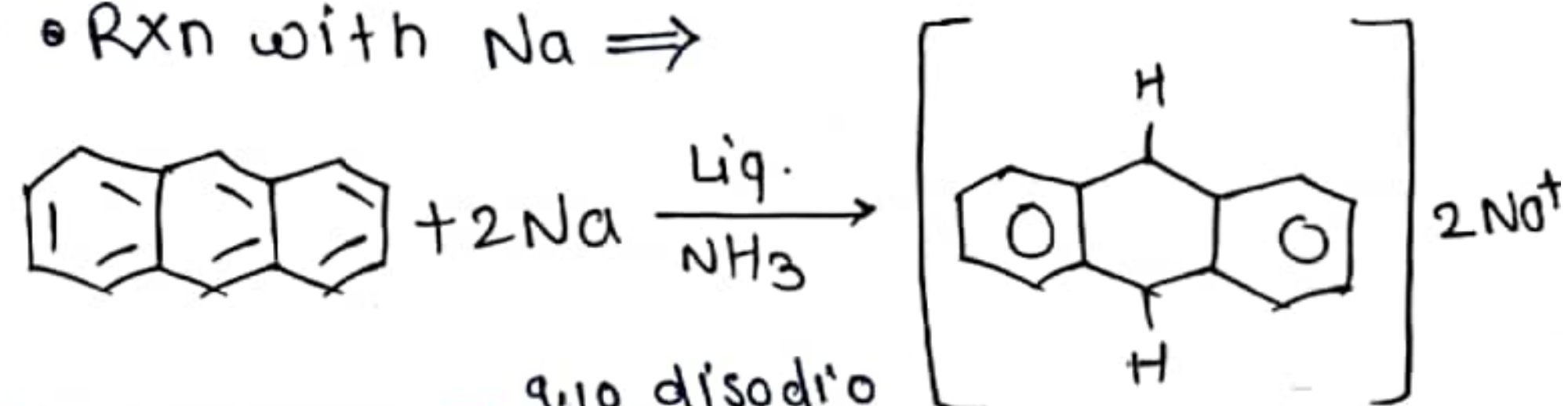
(b) By Diels Alder Reaction:

- Anthracene is synthesized by 1,4-Naphthoquinone by Diels Alder Reaction.



* Chemical Reaction:

• Rxn with Na $\Rightarrow$

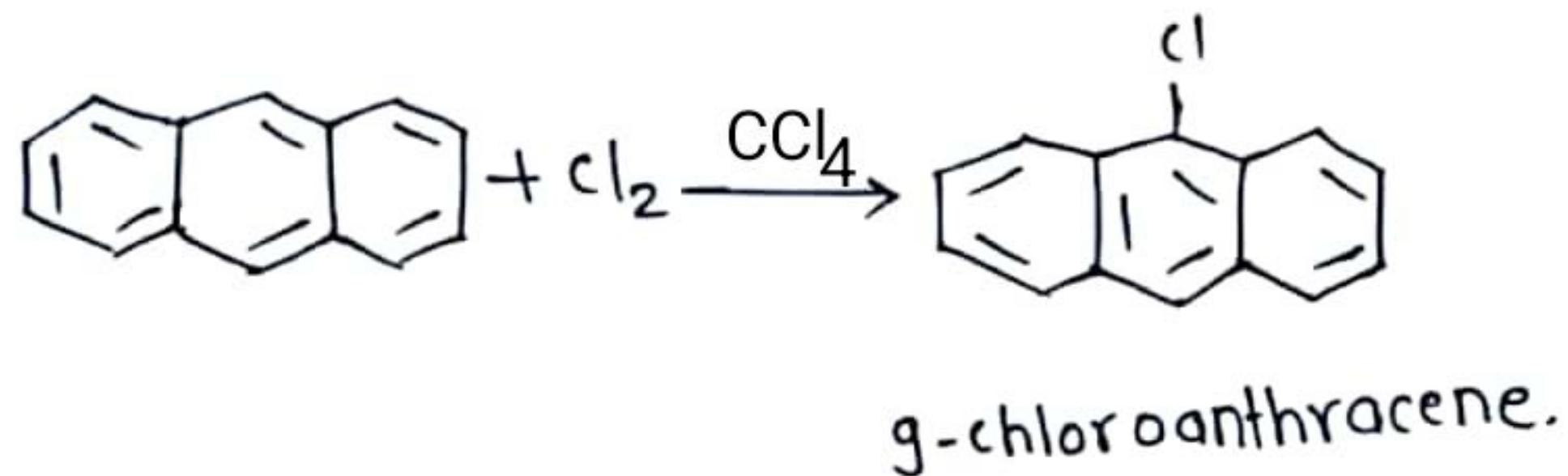


[DEPTH OF BIOLOGY]

9,10 disodio anthracene. $\leftarrow$ deep blue colour.

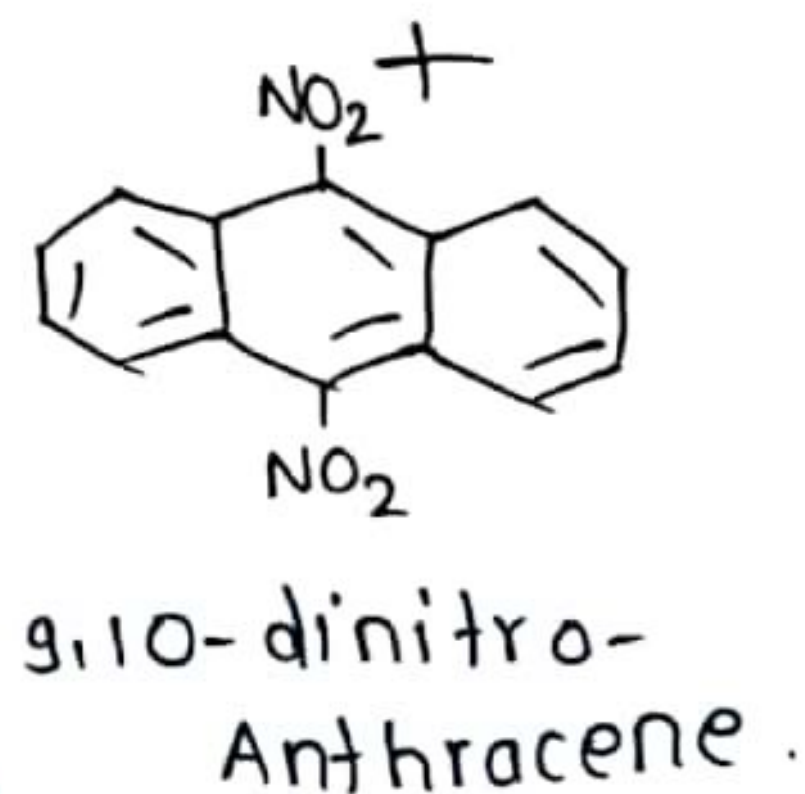
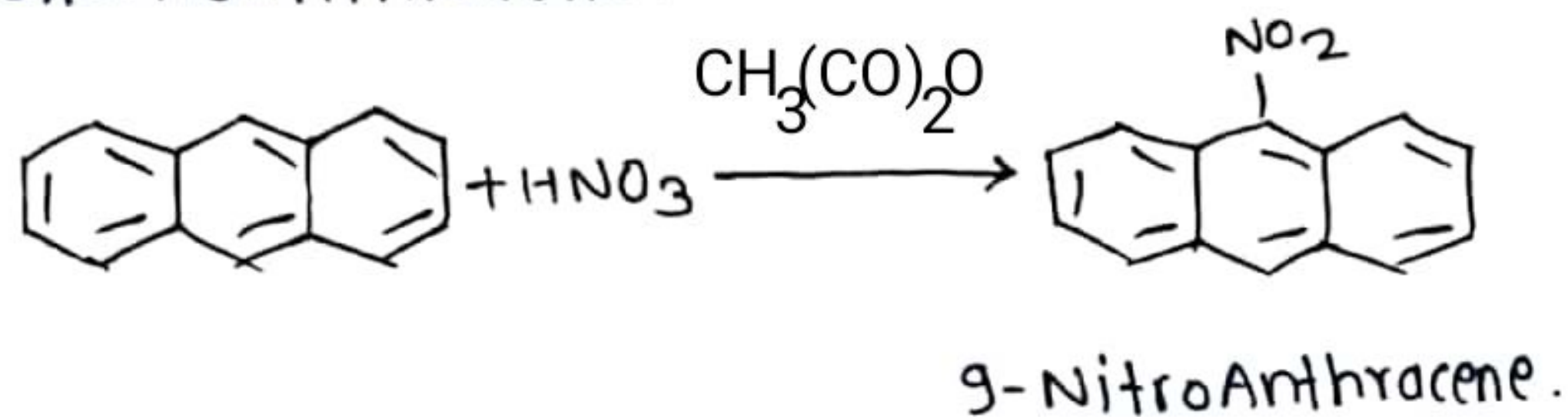
[DEPTH OF BIOLOGY]

③ Halogenation Reaction:



④ Nitration: [DEPTH OF BIOLOGY]

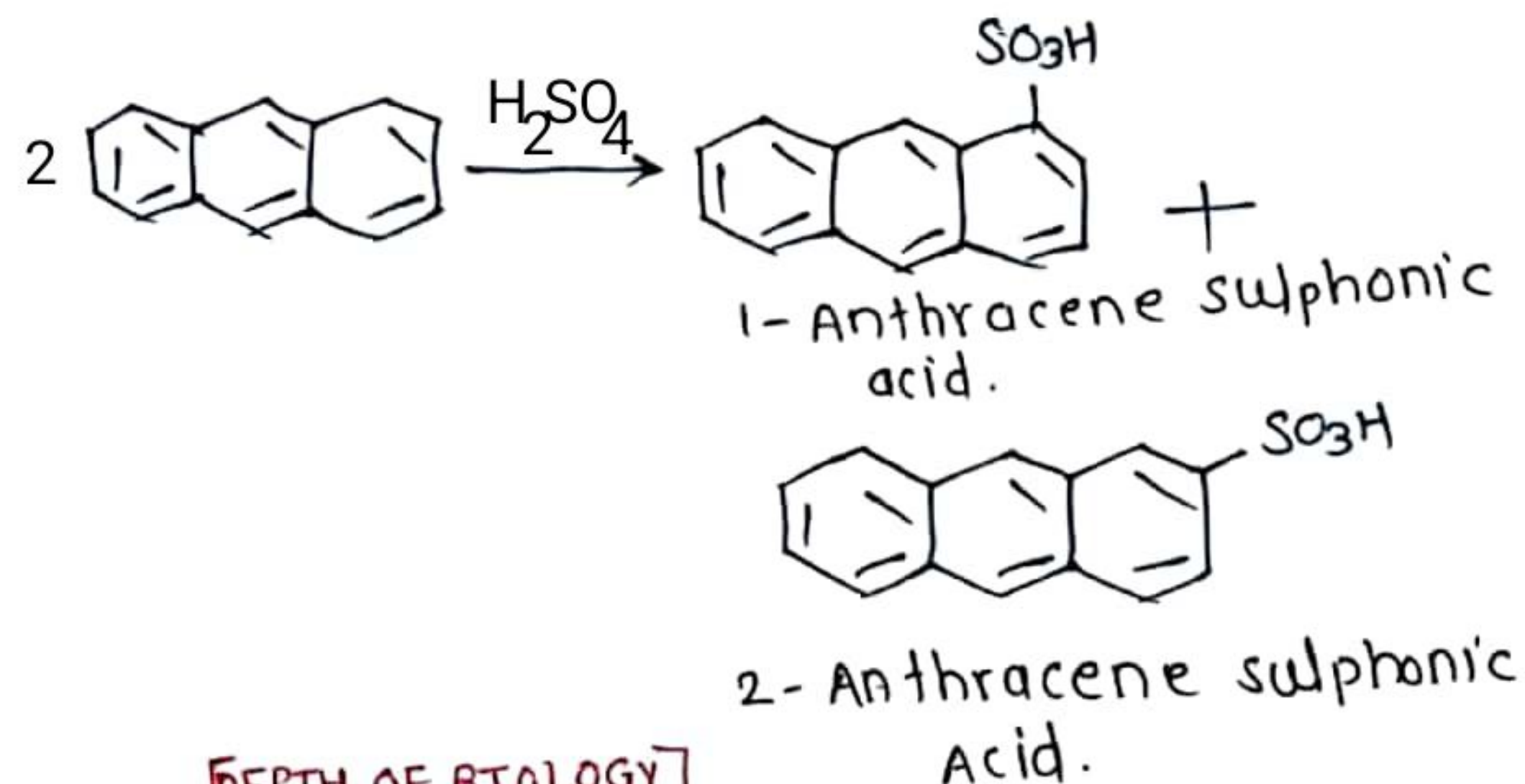
Give mix. of g-NitroAnthracene & g,10-dinitroAnthracene.



[DEPTH OF BIOLOGY]

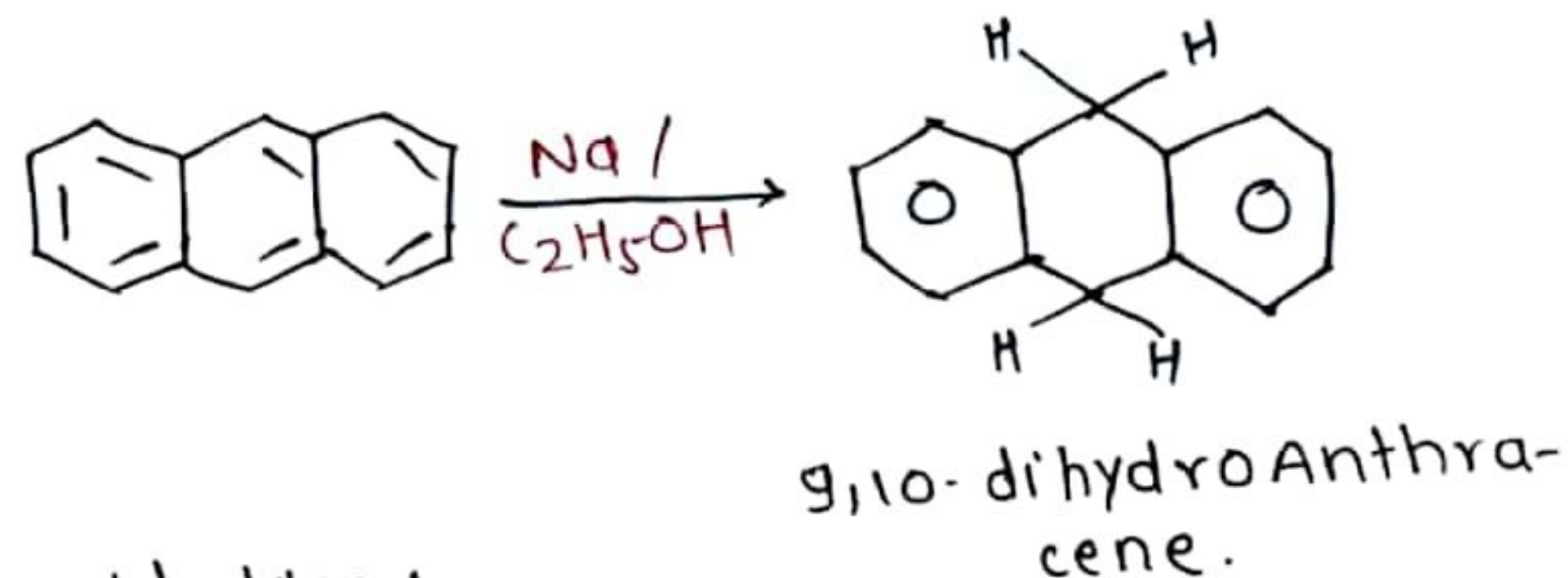
[DEPTH OF BIOLOGY]

⑤ Sulphonation:

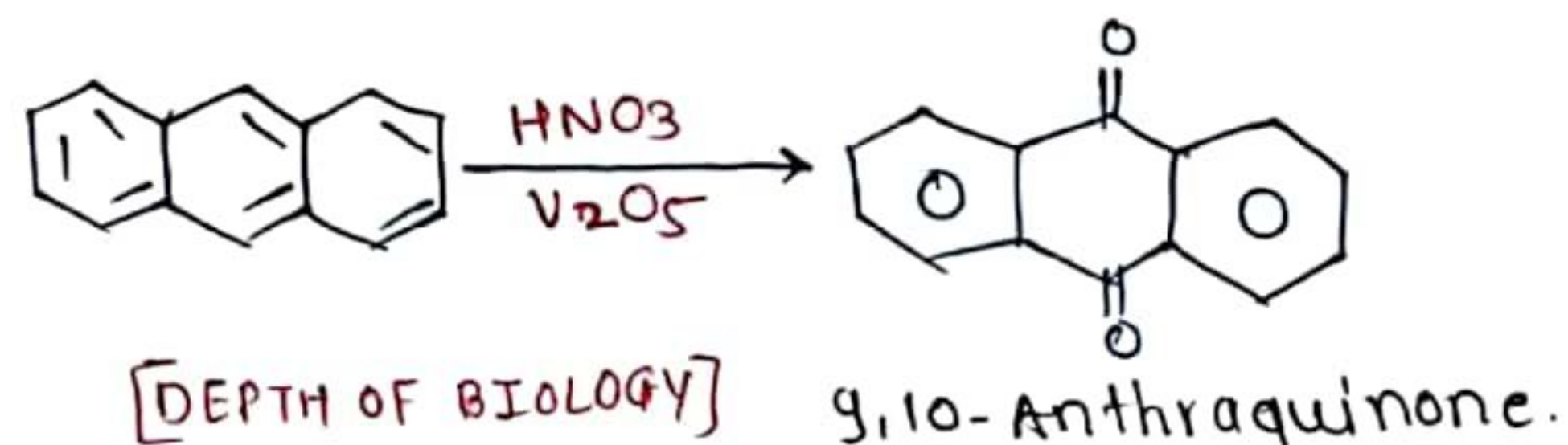


[DEPTH OF BIOLOGY]

⑥ Reduction:



⑦ Oxidation:



[DEPTH OF BIOLOGY]

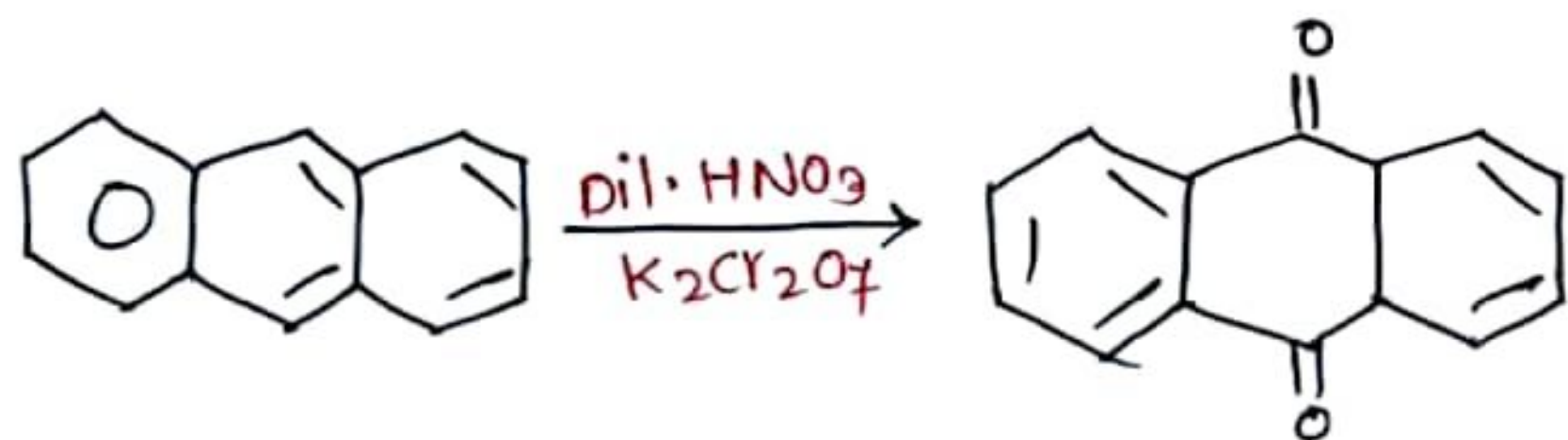
[DEPTH OF BIOLOGY]

USES:

- Manufacturing of Anthraquinone, dyes & in smoke screen.

- Derivatives:

① Anthraquinone:

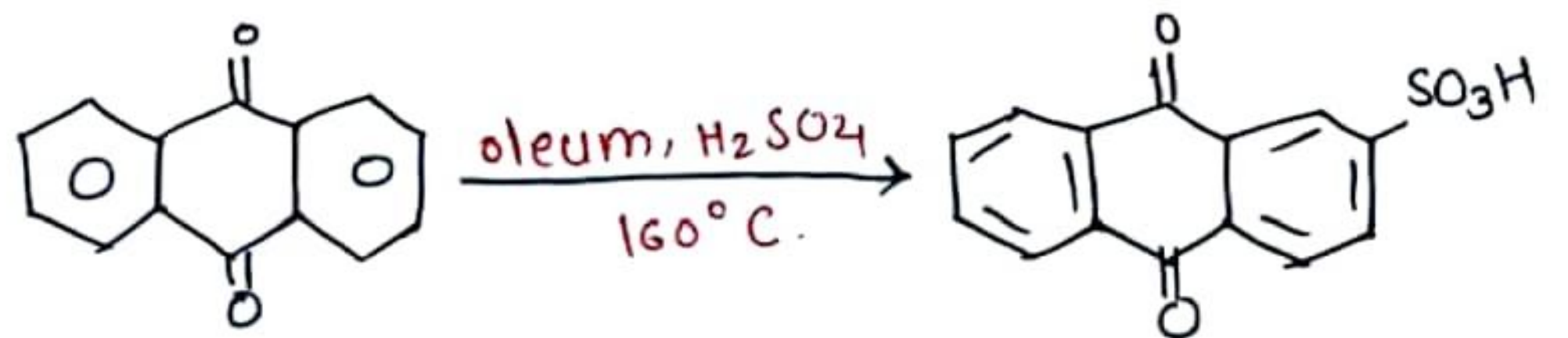


9,10-Anthraquinone.

USES: [DEPTH OF BIOLOGY]

- Used in manufacturing of Alizarine & several other drugs.

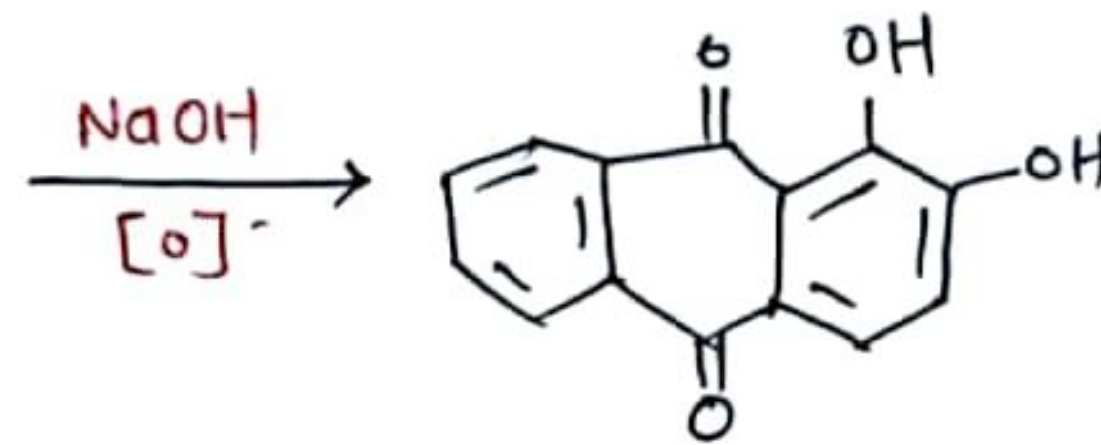
② Alizarine:



9,10-Anthraquinone-2-sulphonic acid.

[DEPTH OF BIOLOGY]

[DEPTH OF BIOLOGY]



Alizarine.

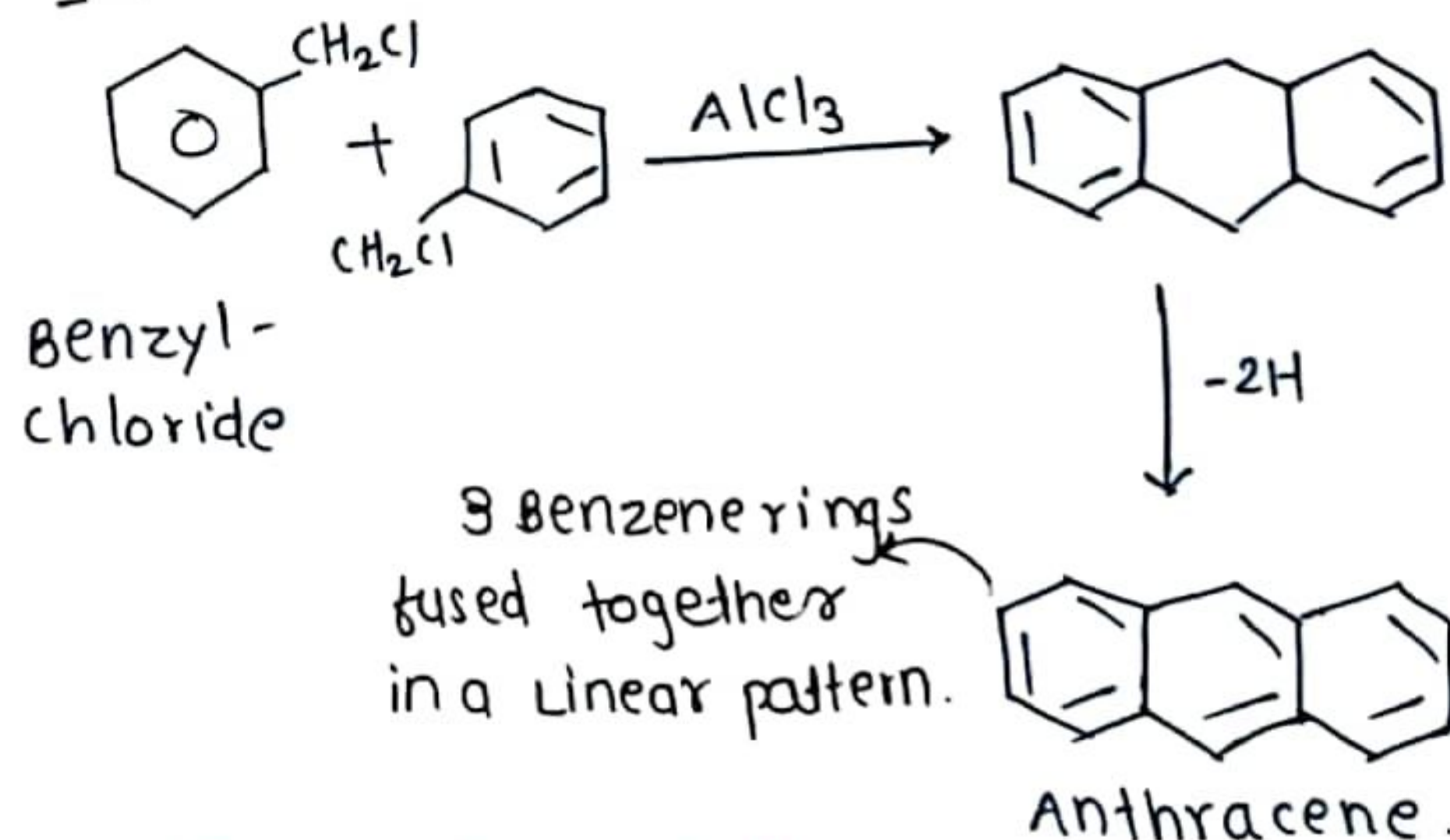
USE: used as a mordant dye.

dying wood by blue colour.

[DEPTH OF BIOLOGY]

③ Anthracene: → Tricyclic system.

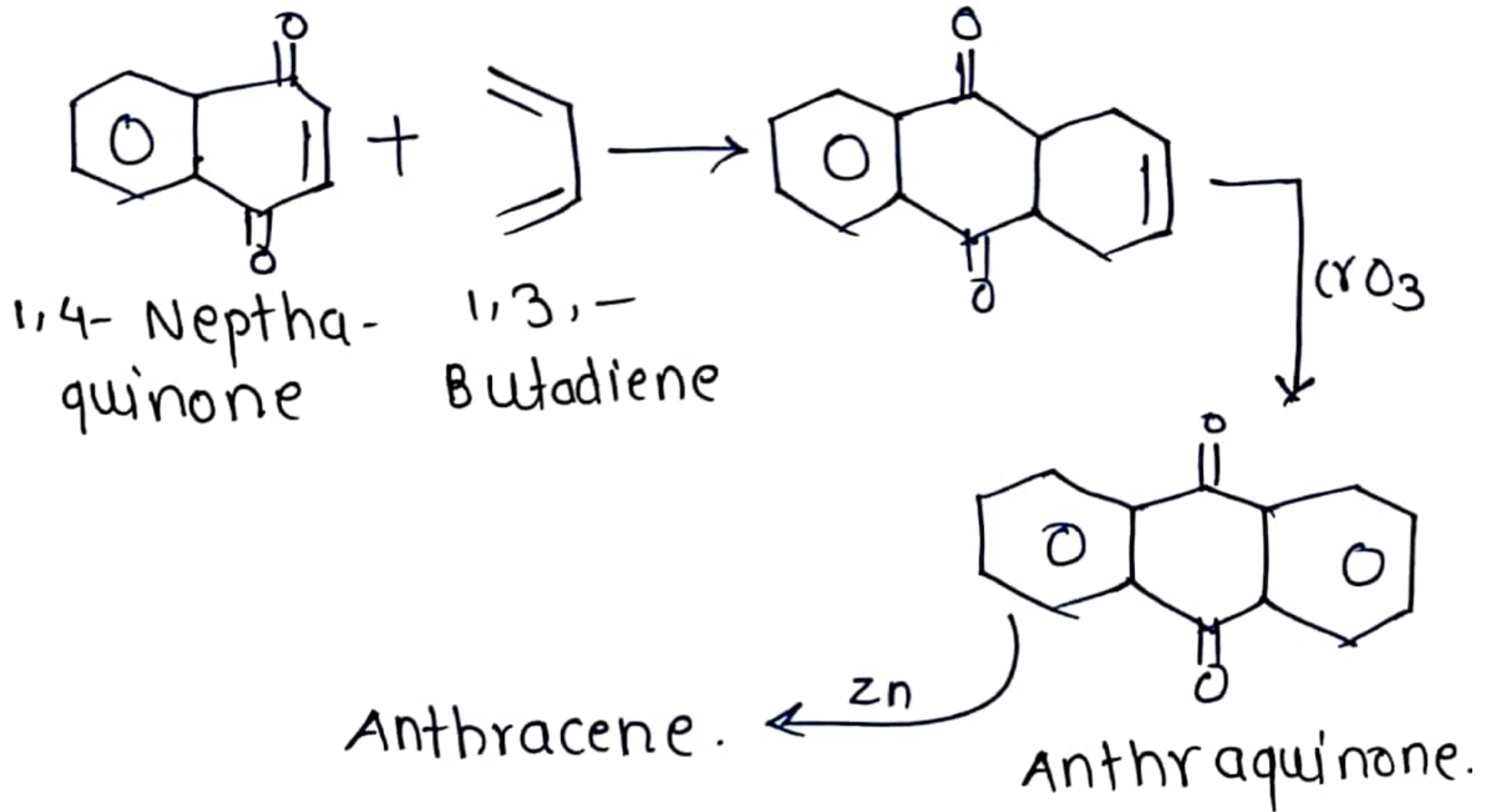
① By Friedel craft Reaction:



[DEPTH OF BIOLOGY]

[DEPTH OF BIOLOGY]

⑥ By Diels Alder Reaction:



[DEPTH OF BIOLOGY]