

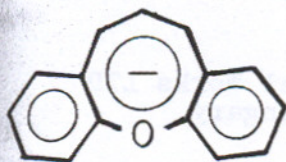
DIBENZ[b,g]OXOCINYL ANION

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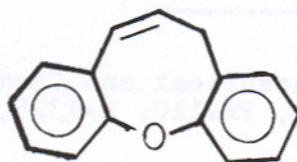
The fact that a common double bond in a cyclic conjugated π -system can be replaced by a heteroatomic lone pair without disrupting the π -electron mobility was first recognized by E. Huckel¹ and has received good documentation since. Thus, furan, pyrrole and thiophene were found to have aromatic character similar to benzene. Heterocyclic analogs of the next higher member of the $4n + 2$ π -electron family, namely, cyclooctatetraene dianion and cyclononatetraenyl anion, as well as their benzannulated derivatives have been the subject of much recent effort.²

To study a dibenzannulated heterocyclic analog of cyclooctatetraene dianion, namely anion 1, compound 2 was recently synthesized.³ The thermodynamic acidity measurements indicated that 2 is significantly (~200-fold) more acidic than its six-membered ring analog 3.

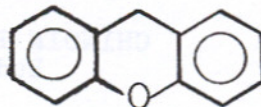
In this work, the spectroscopic evidence (namely ^1H and ^{13}C nmr) for the aromaticity of 1 will be provided, and comparison between 1 and the recently synthesized carbocyclic analog 4 with the six-membered ring heterocycle 5 will be discussed.



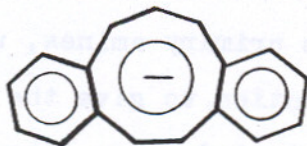
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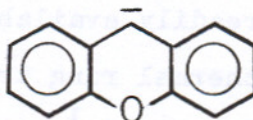
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3



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References

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