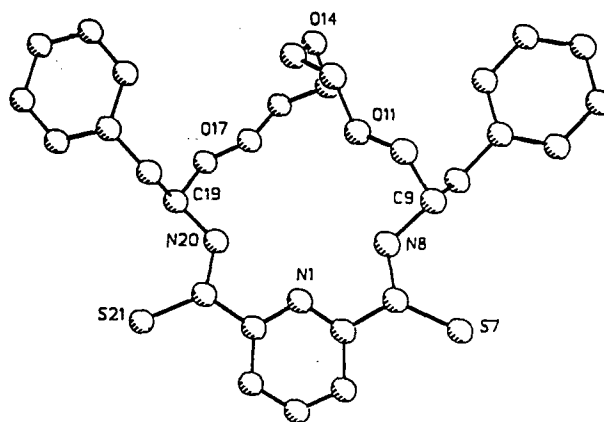
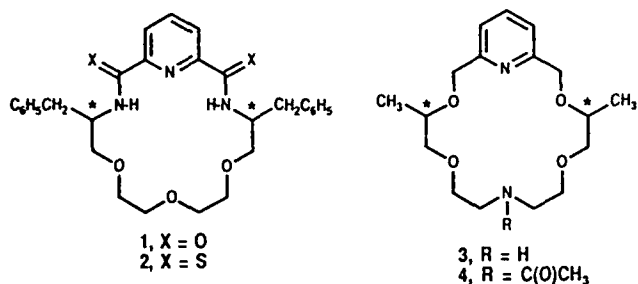


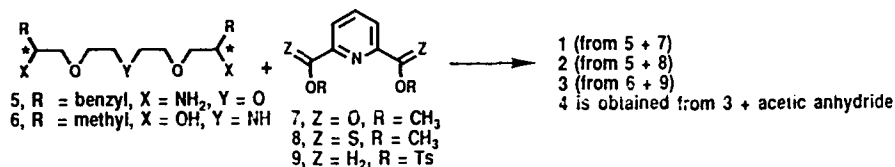
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<b>AD-A221 562</b>		IDENTIFICATION PAGE		Form Approved OMB No. 0704-0188	
1a. SECURITY CLASSIFICATION AUTHORITY <b>AD-A221 562</b>		1b. RESTRICTIVE MARKINGS		3. DISTRIBUTION/AVAILABILITY OF REPORT Approved for public release Distribution unlimited	
2a. SECURITY CLASSIFICATION AUTHORITY <b>APR 30 1990</b>		2b. DECLASSIFICATION/DOWNGRADING SCHEDULE		4. PERFORMING ORGANIZATION REPORT NUMBER(S) Technical Report #8	
6a. NAME OF PERFORMING ORGANIZATION Brigham Young University		6b. OFFICE SYMBOL (If applicable)		7a. NAME OF MONITORING ORGANIZATION Office of Naval Research	
6c. ADDRESS (City, State, and ZIP Code) Department of Chemistry Provo, UT 84602		7b. ADDRESS (City, State, and ZIP Code) Department of the Navy Arlington, VA 22217-5000		8a. NAME OF FUNDING/SPONSORING ORGANIZATION Office of Naval Research	
8b. OFFICE SYMBOL (If applicable) ONR		9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER N000014-88-K-0115		8c. ADDRESS (City, State, and ZIP Code) 800 No. Quincy Street Arlington, VA 22217-5000	
11. TITLE (Include Security Classification) Preparation of Chiral Diamido-, Dithionoamido- and Azapyridino-18-Crown-6		10. SOURCE OF FUNDING NUMBERS		12. PERSONAL AUTHOR(S) J.S. Bradshaw, P. Huszthy and R.M. Izatt	
13a. TYPE OF REPORT Interim		13b. TIME COVERED FROM _____ TO _____		14. DATE OF REPORT (Year, Month, Day) April 20, 1990	
15. PAGE COUNT		16. SUPPLEMENTARY NOTATION		17. COSATI CODES	
18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)		19. ABSTRACT (Continue on reverse if necessary and identify by block number)		20. DISTRIBUTION/AVAILABILITY OF ABSTRACT	
21. ABSTRACT SECURITY CLASSIFICATION		22a. NAME OF RESPONSIBLE INDIVIDUAL Dr. Harold Guard		22b. TELEPHONE (Include Area Code) (202) 696-4409	
22c. OFFICE SYMBOL		20. DISTRIBUTION/AVAILABILITY OF ABSTRACT <input type="checkbox"/> UNCLASSIFIED/UNLIMITED <input type="checkbox"/> SAME AS RPT. <input type="checkbox"/> DTIC USERS		21. ABSTRACT SECURITY CLASSIFICATION	

Figure 1. Chiral diamido-, dithionoamido and azapyridino-18-crown-6



Scheme I. Preparation of chiral pyridino-crowns



X-Ray Structure of 2

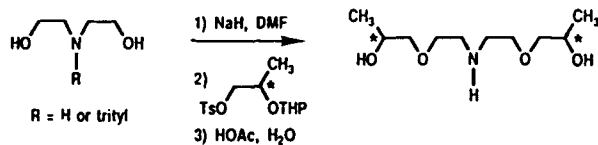
Chiral dimethyl-substituted azapyridino-18-crown-6 ligands (3 and 4) have also been prepared. Ligand 3 was prepared by reacting 2,6-pyridinedimethyl ditosylate (9) with chiral dimethyl-substituted azatetraethylene glycol (6) (see Scheme I) to give (S,S)-3; oil,  $[\alpha]_D -4.26^\circ$  (c = 2.702, benzene). Compound 3 was reacted with acetic anhydride to give 4; oil,  $[\alpha]_D +31.2^\circ$  (c = 0.5, benzene).

Ligand 3 formed a strong complex with  $\alpha$ -(1-naphthyl)ethylammonium perchlorate. The <sup>1</sup>H NMR spectrum of the complex is very difficult to analyze suggesting that part of the complex has one proton from the ammonium salt transferred to the amine nitrogen atom of the aza-crown. Additional work is being done with this system.

Scheme II. Preparation of chiral starting diamine 5 and glycol 6

A. Diamine 5 was prepared as reported: Chadwick et al., *J. Chem. Soc., Perkin Trans. I* 1707 (1984)

B. Glycol 6



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