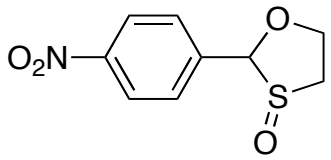
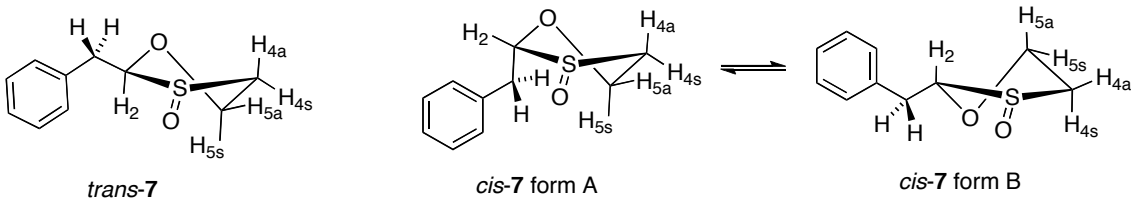


cis- and *trans*-**11**

Figure 2. Structure of previously investigated compound **11** [14].

Table 1: Observed ^{1}H NMR chemical shifts (ppm) and coupling contants (Hz) for the *cis* and *trans* isomers of sulfoxide **7**.

	***trans*-7**		**coupling**	**to**	***cis*-7**		**coupling**	**to**
	δ_H	**H-4s**	**H-5a**	**H-5s**	**δ_H**	**H-4s**	**H-5a**	**H-5s**
H-4a	2.464	13.6	7.0	11.7	2.986	13.0	7.5	6.8
H-4s	2.95		1.0	4.3	3.35		5.3	7.9
H-5a	4.54			10.0	4.64			9.8
H-5s	4.30				3.868			
			CH_2Ph-1	**CH_2Ph-2**			**CH_2Ph-1**	**CH_2Ph-2**
H-2	4.68		5.6	6.4	4.406		6.8	6.0
CH_2Ph-1	3.23			14.0	3.23			14.0
CH_2Ph-2	3.29				3.29			



trans-**7** *cis*-**7** form A *cis*-**7** form B

Figure 3. Solution conformations of *trans* and *cis*-**7** with protons labelled as *syn* (s) or *anti* (a) to the sulfoxide oxygen.

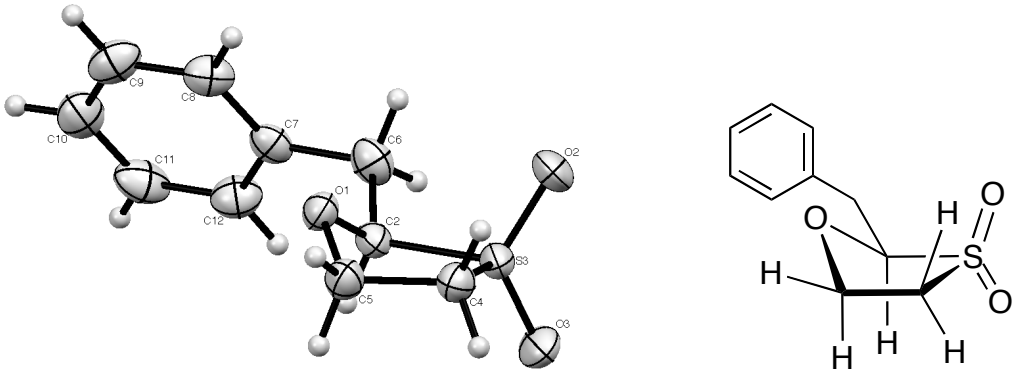


Figure 4. X-Ray structure of **8** (ORTEP diagram, 50% probability level). Selected bond lengths and angles: O1-C2 1.403(2), C2-S3 1.824(2), S3-C4 1.773(2), C4-C5 1.522(3), C5-O1 1.444(2) Å; C2-O1-C5 107.60(14), O1-C2-S3 102.97(13), C2-S3-C4 94.17(9), S3-C4-C5 103.78(14), C4-C5-O1 107.32(16)°.

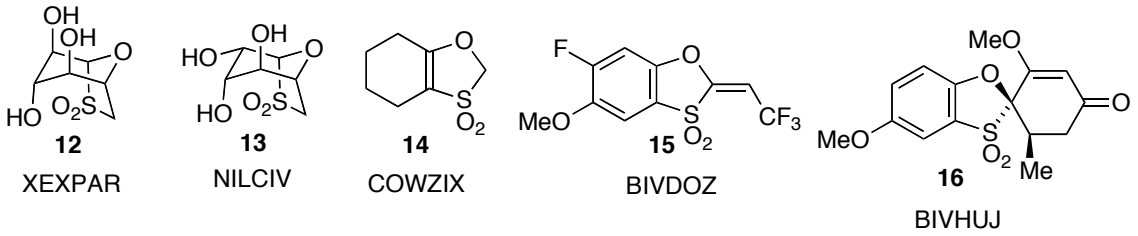
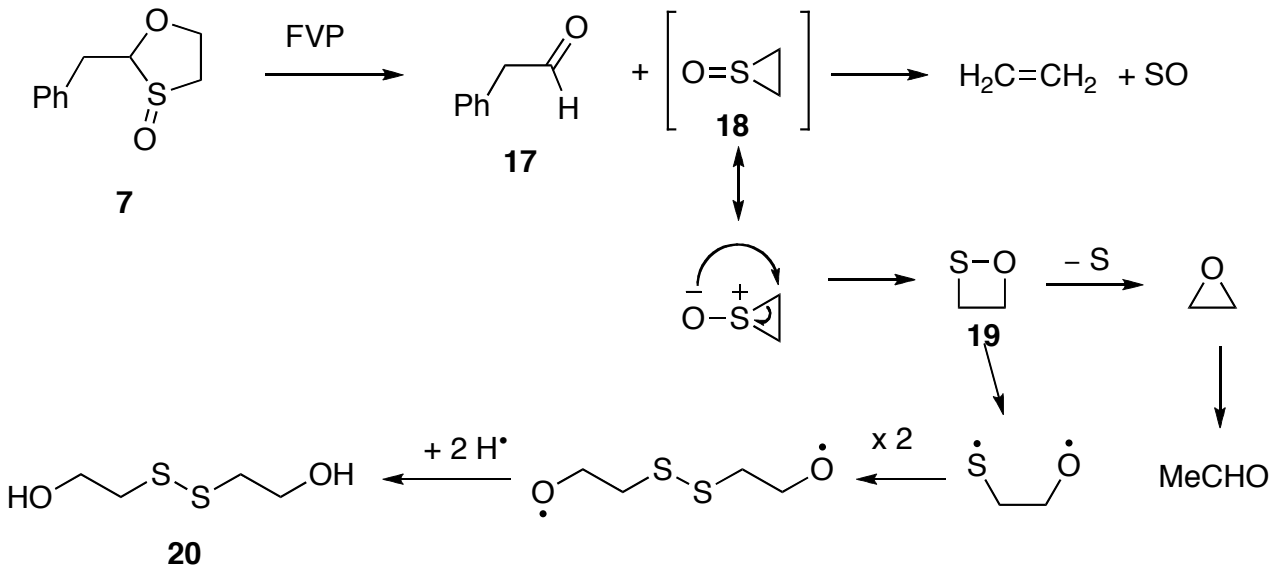
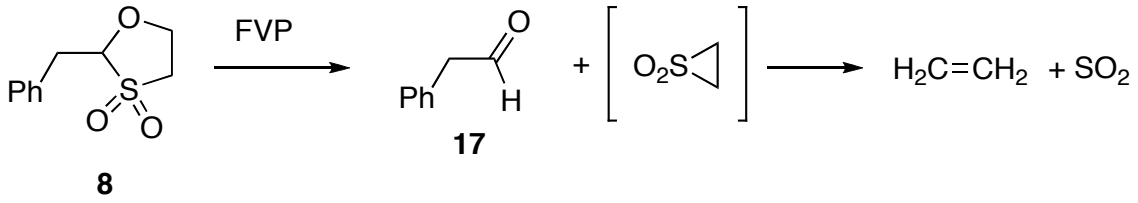


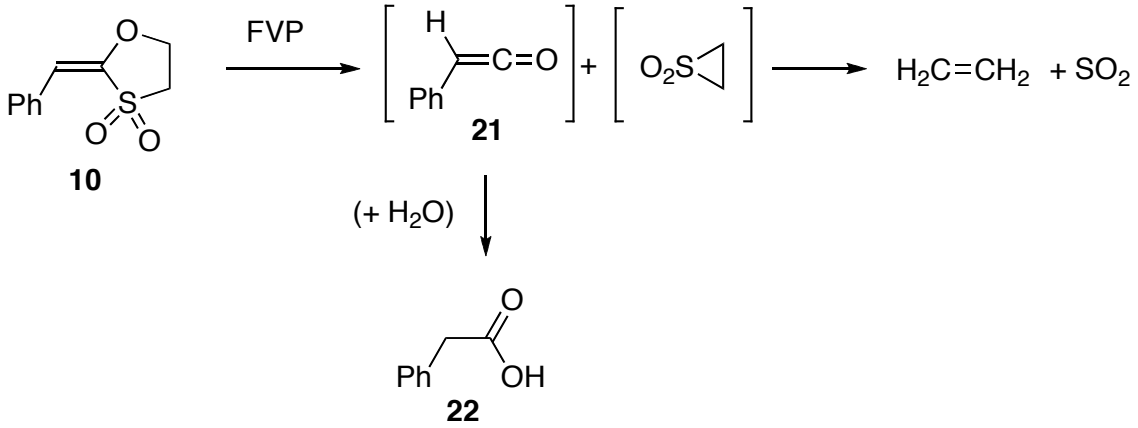
Figure 5. 1,3-Oxathiolane and 1,3-oxathiole *S,*S-dioxides previously characterised by X-ray crystallography with CCDC Reference Codes.



Scheme 6. FVP behaviour of sulfoxide **7**.



Scheme 7. FVP behaviour of sulfone **8**.



Scheme 8. FVP behaviour of unsaturated sulfone **10**.