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### CRYSTALLOGRAPHIC STUDIES OF CHALCOGEN BRIDGED NAPHTHALENES

Stephen Mark Aucott<sup>a</sup>; Heather L. Milton<sup>a</sup>; Alexandra M. Z. Slawin<sup>a</sup>; J. Derek Woollins<sup>a</sup>

<sup>a</sup> University of St. Andrews, Fife, Scotland

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## CRYSTALLOGRAPHIC STUDIES OF CHALCOGEN BRIDGED NAPHTHALENES

*Stephen Mark Aucott, Heather L. Milton,  
Alexandra M. Z. Slawin, and J. Derek Woollins  
University of St. Andrews, Fife, Scotland*

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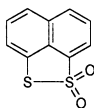
*Keywords:* Naphthalene derivatives; organo chalcogens

Peri-bridged naphthalenes are flat molecules that exhibit  $\pi$ -stacking in the solid state. It is possible for the  $\pi$ -stacking in sulfur bridged naphthalenes to be disrupted by attaching oxygen atoms to the sulfur bridges.

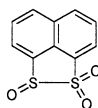
The crystal structure of naphtho[1,8-*cd*][1,2]diselenole (**1**) shows significant  $\pi$ -stacking interactions. X-ray crystal structures of molecules **1–4** were determined, and the structure of (**1**) shows that this is also the case for the S analogue. Crystal structures of molecules **2–4** also show some  $\pi$ -stacking, but it is disrupted to varying degrees by the oxygen atoms.



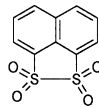
(1)



(2)



(3)



(4)

Interatomic interactions between the sulfur and oxygen molecules occur in molecules **2**, **3**, and **4**. These interactions interfere with the  $\pi$ -stacking, but the result varies with the number of oxygen atoms.

Address correspondence to Heather L. Milton, Department of Chemistry, University of St. Andrews, Fife KY169ST, Scotland. E-mail: hlm@st-andrews.ac.uk