## **Supporting Material**

## Reactivity of sulfonylbutadienes. Synthesis of Ginsenol analogues

David Díez,<sup>a\*</sup> Sonia G. Sanfeliciano,<sup>a</sup> Javier Peña,<sup>a</sup> M. Fe Flores,<sup>a</sup> Pilar García, Narciso M. Garrido, Isidro S. Marcos, Andrew J. White,<sup>b</sup> Pilar Basabe, and Julio G. Urones

<sup>a</sup>Departamento de Química Orgánica, Facultad de Ciencias Químicas, Universidad de Salamanca. Plaza de los Caídos 1-5, 37008 Salamanc, Spain

<sup>b</sup>Department of Chemistry, Imperial College of Science, Technology and Medicine, London SW7 2AZ, UK

E-mail: ddm@usal.es

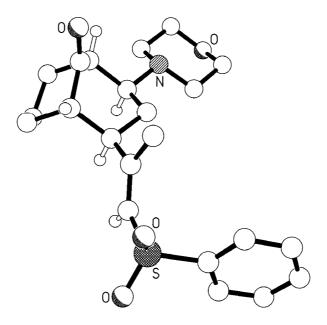
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1. The X-ray crystal structure of 4a

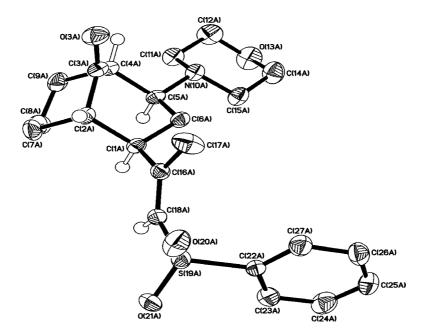
**S**2

## 1. The X-ray crystal structure of 4a

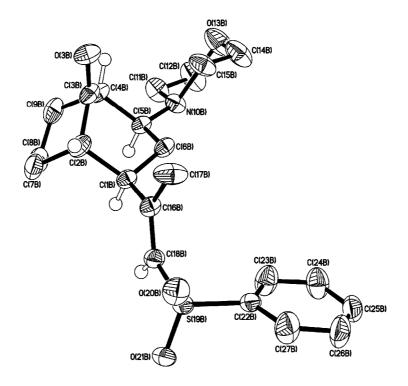
Compound **4a** was found to crystallise in a polar space group with three crystallographically independent molecules (A, B and C) in the asymmetric unit, shown in Figure 3 in the paper (B), and Figures S1 (A) and S4 (C) here in the supporting information. The N(10) morpholine and the C(22) phenyl rings in molecule C were both found to be disordered. In each case two partial occupancy orientations were identified (of ca. 63 and 37% occupancy for the morpholine ring, and ca. 57 and 43% occupancy for the phenyl ring), the geometries were optimised, and only the non-hydrogen atoms of the major occupancy orientations were refined anisotropically.



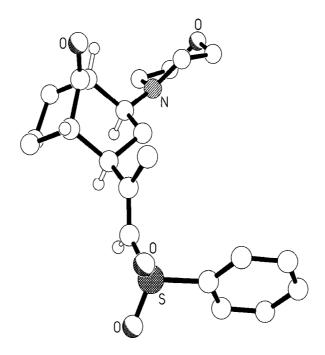
**Figure S1.** The molecular structure of one (A) of the three crystallographically independent molecules present in the crystals of **4a**.



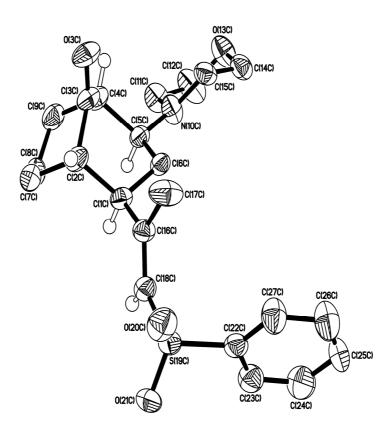
**Figure S2.** The molecular structure of one (A) of the three crystallographically independent molecules present in the crystals of 4a (30% probability ellipsoids).



**Figure S3.** The molecular structure of one (B) of the three crystallographically independent molecules present in the crystals of **4a** (30% probability ellipsoids).



**Figure S4.** The molecular structure of one (C) of the three crystallographically independent molecules present in the crystals of **4a**.



**Figure S5.** The molecular structure of one (C) of the three crystallographically independent molecules present in the crystals of **4a** (30% probability ellipsoids).