

Supplementary Materials

Table S1. Related 1-(arylsulfonyl)indole structures found in the Cambridge Structural Database.

CSD code	Reference	Ref. No.
ABURUK	Lutz, G.; Pindur, U.; Schollmeyer, D. Asymmetrische Diels-Alder-Reaktionen an 2- und 3- Vinylindolen. PhD Thesis, University of Mainz, Mainz, Germany, 1994.	[1]
ABUSAR	Lutz, G.; Pindur, U.; Schollmeyer, D. Asymmetrische Diels-Alder-Reaktionen an 2- und 3- Vinylindolen. PhD Thesis, University of Mainz, Mainz, Germany, 1994.	[1]
ABUSOF	Lutz, G.; Pindur, U.; Schollmeyer, D. Asymmetrische Diels-Alder-Reaktionen an 2- und 3- Vinylindolen. PhD Thesis, University of Mainz, Mainz, Germany, 1994.	[1]
ATOYAJ	Caballero, E.; Alonso, D.; Pelaez, R.; Alvarez, C.; Puebla, P.; Sanz, F.; Medarde, M.; Tome, F. 1-Phthalimido-4-(3-indolyl)-2-siloxy-1,3-butadienes: Synthesis and Diels–Alder reactivity. <i>Tetrahedron Lett.</i> 2004 , 45, 1631–1634.	[2]
BANREO	Sankaranarayanan, R.; Yogavel, M.; Velmurugan, D.; Sekar, K.; Babu, G.; Perumal, P.T.; Raj, S.S.S.; Fun, H.-K. 8-Chloro-4-[1-(phenylsulfonyl)indol-3-yl]-3a,4,5,9b-tetrahydro-3H-cyclopenta[c]quinoline. <i>Acta Crystallogr.</i> 2003 , E59, o49–o51.	[3]
BEHNAE	Kinsman, A.C.; Kerr, M.A. The Total Synthesis of (+) Hapalindole Q by an organomediated Diels Alder Reaction. <i>J. Am. Chem. Soc.</i> 2003 , 125, 14120–14125.	[4]
BUJVUY	Jasinski, J.P.; Rinderspacher, A.; Gribble, G.W. Structures of three new (Phenylsulfonyl) indole derivatives. <i>J. Chem. Cryst.</i> 2010 , 40, 40–47.	[5]
CIDBEX	Sonar, V.N.; Venkatraj, M.; Parkin, S.; Crooks, P.A. (Z)-2-[(1-Phenylsulfonyl-1H-indol-3-yl)methylene]-1-azabicyclo[2.2.2]octan-3-one semicarbazone. <i>Acta Crystallogr.</i> 2007 , C63, o277–o279.	[6]
FAKZOI	Mandal, D.; Yamaguchi, A.D.; Yamaguchi, J.; Itami, K. Synthesis of dragmacidin D via direct C-H couplings. <i>J. Am. Chem. Soc.</i> 2011 , 133, 19660–19663.	[7]
FAKZUO	Mandal, D.; Yamaguchi, A.D.; Yamaguchi, J.; Itami, K. Synthesis of dragmacidin D via direct C-H couplings. <i>J. Am. Chem. Soc.</i> 2011 , 133, 19660–19663.	[7]
HIZHEE	Zhu, J.; Zhang, X.Z.; Chen, S.Q.; Huang, X.H.; Zhang, Q.F. <i>J. Anhui Univ. Technol.</i> 2007 , 24, 273.	[8]
IRIFAR	Zhao, F.; Fu, C.; Ma, S. Studies on the Intermolecular Hydroarylation of N-Ts- or N-Ac-Protected Indoles and 2,3-Allenates. <i>Eur. J. Org. Chem.</i> 2011 , 2011, 1227–1231.	[9]
IRIFEV	Zhao, F.; Fu, C.; Ma, S. Studies on the Intermolecular Hydroarylation of N-Ts- or N-Ac-Protected Indoles and 2,3-Allenates. <i>Eur. J. Org. Chem.</i> 2011 , 2011, 1227–1231.	[9]
IZEBEU	Sonar, V.N.; Parkin, S.; Crooks, P.A. (Z)-2-(1-Phenylsulfonyl-1H-indol-3-ylmethylene)-1-azabicyclo[2.2.2]octan-3-one and (Z)-(S)-2-(1-phenylsulfonyl-1H-indol-3-ylmethylene)-1-azabicyclo[2.2.2]octan-3-ol. <i>Acta Crystallogr.</i> 2004 , C60, o659–o661.	[10]
IZEBIY	Sonar, V.N.; Parkin, S.; Crooks, P.A. (Z)-2-(1-Phenylsulfonyl-1H-indol-3-ylmethylene)-1-azabicyclo[2.2.2]octan-3-one and (Z)-(S)-2-(1-phenylsulfonyl-1H-indol-3-ylmethylene)-1-azabicyclo[2.2.2]octan-3-ol. <i>Acta Crystallogr.</i> 2004 , C60, o659–o661.	[10]
IZUNAS	Meza-Leon, R.L.; Crich, D.; Bernes, S.; Quintero, L. Endo-selective quenching of hexahydropyrrolo[2,3-b]indole-based N-acyliminium ions. <i>J. Org. Chem.</i> 2004 , 69, 3976–3978.	[11].
IZUNIA	Meza-Leon, R.L.; Crich, D.; Bernes, S.; Quintero, L. Endo-selective quenching of hexahydropyrrolo[2,3-b]indole-based N-acyliminium ions. <i>J. Org. Chem.</i> 2004 , 69, 3976–3978.	[11]

Table S1. Cont.

CSD code	Reference	Ref. No.
KEGCUV	Dockendorff, C.; Lautens, M.; Lough, A.J. 2-(1-Phenylsulfonyl-1H-indol-3-yl)-1,2-dihydronaphthalen-1-ol. <i>Acta Crystallogr.</i> 2006 , <i>E62</i> , o1030–o1032.	[12]
KERKIC	Kumar, G.S.; Chinnakali, K.; Balamurugan, R.; Mohanakrishnan, A.K.; Fun, H.-K. Ethyl 2-bromo-3-(1-phenylsulfonyl-1H-indol-3-yl)acrylate. <i>Acta Crystallogr.</i> 2006 , <i>E62</i> , o4972–o4974.	[13]
KIXTUG	Sankaranarayanan, R.; Velmurugan, D.; Raj, S.S.S.; Fun, H.-K.; Babu, G.; Perumal, P.T. 4-[1-(Phenylsulfonyl)indol-3-yl]-3a,4,5,9b-tetrahydro-3H-cyclopenta[c]quinolone. <i>Acta Crystallogr.</i> 2000 , <i>C56</i> , 475–476.	[14]
LAPBIP	Paramasivam, S.; Bhaskar, G.; Seshadri, P.R.; Perumal, P.T. (E)-3-Phenyl-2-(1-tosyl-1H-indol-3-ylcarbonyl)acrylonitrile. <i>Acta Crystallogr.</i> 2012 , <i>E68</i> , o683–o684.	[15]
LOXDOR	Jiang, B.; Yang, C.G.; Gu, X.H. A highly stereoselective synthesis of indolyl N-substituted glycines. <i>Tetrahedron Lett.</i> 2001 , <i>42</i> , 2545–2547.	[16]
LUDKUR	Mizoguchi, H.; Oguri, H.; Tsuge, K.; Oikawa, H. Divergent and expeditious access to fused skeletons inspired by indole alkaloids and transtaganolides. <i>Org. Lett.</i> 2009 , <i>11</i> , 3016–3019.	[17]
MORJUY	Jiang, B.; Yang, C.G.; Xiong, W.N.; Wang, J. Synthesis and cytotoxicity evaluation of novel indolylpyrimidines and indolylpyrazines as potential antitumor agents. <i>Bioorg. Med. Chem.</i> 2001 , <i>9</i> , 1149–1154.	[18]
PAWVIU	Zukerman-Schpector, J.; Wulf, G.D.; Stefani, H.A.; Vasconcelos, S.N.S.; Ng, S.W.; Tiekink, E.R.T. 3-Ethenyl-1-(4-methylphenylsulfonyl)-1H-indole. <i>Acta Crystallogr.</i> 2012 , <i>E68</i> , o1829–o1830.	[19]
QASXAK	Caballero, E.; Alonso, D.; Pelaez, R.; Alvarez, C.; Puebla, P.; Sanz, F.; Medarde, M.; Tome, F. Diels–alder reactivity of 4-aryl-1-phthalimido-2-siloxy-1,3-butadienes. <i>Tetrahedron</i> 2005 , <i>61</i> , 6871–6878.	[20]
QITMOV	Nieger, M. University of Bonn, Bonn, Germany, Personal communication, 2000.	[21]
ROCLIF	Forke, R.; Jager, A.; Knolker, H.-J. First total synthesis of clausine L and pityriazole, a metabolite of the human pathogenic yeast <i>Malassezia furfur</i> . <i>Org. Biomol. Chem.</i> 2008 , <i>6</i> , 2481–2483.	[22]
TEKTAE	Mohialdin-Khaffaf, S.; Persaud, K.C.; Pritchard, R.G. 3-Hexanoyl-1-tosylindole. A highly stereospecific preparation of 3-alkyl-substituted indoles. <i>Acta Crystallogr.</i> 1996 , <i>C52</i> , 2607–2609.	[23]
UBEBOU	Li, L.; Han, M.; Xiao, M.; Xie, Z. Proline-catalyzed enantioselective synthesis of aza-quaternary carbon derivatives. <i>Synlett</i> 2011 , <i>12</i> , 1727–1730.	[24]
VACKUH	Chakkaravarthi, G.; Panchatcharam, R.; Dhayalan, V.; Mohanakrishnan, A.K.; Manivannan, V. (Phenyl)(1-phenylsulfonyl-1H-indol-3-yl)methanone. <i>Acta Crystallogr.</i> 2010 , <i>E66</i> , o2895.	[25]
YEDYAI	Sonar, V.N.; Parkin, S.; Crooks, P.A. (Z)-2-[1-(4-Methylphenylsulfonyl)-1H-indol-3-ylmethylene]-1-azabicyclo[2.2.2]octan-3-one. <i>Acta Crystallogr.</i> 2006 , <i>E62</i> , o623–o625.	[26]
ZIKKAF	Schollmeyer, D.; Fischer, G.; Pindur, U. Dimeric 3-vinylindoles as potential antitumor active compounds: 1,1,3,4-Tetramethyl-3-(1-methyl-1H-indol-3-yl)-1,2,3,4-tetrahydrocyclopenta[b]indole and 1,1,3-Trimethyl-4-phenylsulfonyl-3-(1-phenylsulfonyl-1H-indol-3-yl)-1,2,3,4-tetrahydrocyclopenta[b]indole. <i>Acta Crystallogr.</i> 1995 , <i>C51</i> , 2572–2575.	[27]
ZILPAL	Vangveravong, S.; Nichols, D.E. Stereoselective synthesis of trans-2-(Indol-3-yl)cyclopropylamines: Rigid tryptamine analogs. <i>J. Org. Chem.</i> 1995 , <i>60</i> , 3409–3413.	[28]

Figure S1. NMR acquisition parameters.

```
Current Data Parameters
NAME      Staley_090114
EXPNO     2
PROCNO    1
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F2 - Acquisition Parameters
Date_     20140109
Time      16.14
INSTRUM   spect
PROBHD    5 mm TBI 1H/13
PULPROG   zg30
TD        32768
SOLVENT   CDCl3
NS        16
DS        0
SWH       7878.151 Hz
FIDRES    0.240422 Hz
AQ        2.0797257 sec
RG        57
DW        63.467 usec
DE        6.50 usec
TE        272.9 K
D1        1.00000000 sec
TD0       1
```

```
===== CHANNEL f1 =====
SFO1      600.1730171 MHz
NUC1      1H
P1        7.38 usec
PLW1      9.00000000 W
```

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F2 - Processing parameters
SI        65536
SF        600.1700293 MHz
WDW       EM
SSB       0
LB        0.30 Hz
GB        0
PC        1.00
```

Figure S2. NMR spectra at different temperatures.