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4-(3-Methyl-4,5-dihydro-1*H*-benzo[*g*]-indazol-1-yl)benzenesulfonamide

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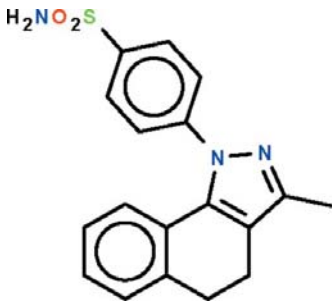
Key indicators: single-crystal X-ray study; T = 100 K; mean σ(C–C) = 0.005 Å; R factor = 0.068; wR factor = 0.184; data-to-parameter ratio = 14.4.

In the title compound, $C_{18}H_{17}N_3O_2S$, the aromatic ring bearing the sulfamide unit is aligned at 61.65 (1)° with respect to the pyrrole ring; its amino group forms N—H···N and N—H···O hydrogen bonds to neighboring molecules, generating sheets in the *ac* plane.

Related literature

For the crystal structure of a pyrrole synthesized using 2-acetyltetralone as a reactant, see: Portilla *et al.* (2007).



Experimental

Crystal data

$C_{18}H_{17}N_3O_2S$
M_r = 339.41
Monoclinic, $P2_1/n$
a = 4.8838 (1) Å
b = 27.3894 (4) Å
c = 12.2399 (2) Å
β = 94.738 (1)°
V = 1631.67 (5) Å^3
Z = 4
Cu $K\alpha$ radiation
μ = 1.89 mm^{-1}
T = 100 K
0.30 × 0.25 × 0.20 mm

Data collection

Agilent SuperNova Dual diffractometer with an Atlas detector
Absorption correction: multi-scan (*CrysAlis PRO*; Agilent, 2010)
T_{min} = 0.600, T_{max} = 0.703
11808 measured reflections
3255 independent reflections
3166 reflections with $I > 2\sigma(I)$
R_{int} = 0.018

Refinement

$R[F^2 > 2\sigma(F^2)]$ = 0.068
$wR(F^2)$ = 0.184
S = 1.11
3255 reflections
226 parameters
14 restraints
H atoms treated by a mixture of independent and constrained refinement
$\Delta\rho_{max}$ = 0.70 e Å^{-3}
$\Delta\rho_{min}$ = −0.65 e Å^{-3}

Table 1
Hydrogen-bond geometry (Å, °).

D—H···A	D—H	H···A	D···A	D—H···A
N1—H1···N3^{i}	0.88 (1)	2.05 (1)	2.925 (4)	173 (5)
N1—H2···O2^{ii}	0.88 (1)	1.95 (2)	2.806 (4)	165 (4)

Symmetry codes: (i) $x+\frac{1}{2}, -y+\frac{3}{2}, z+\frac{1}{2}$; (ii) $x-1, y, z$.

Data collection: *CrysAlis PRO* (Agilent, 2010); cell refinement: *CrysAlis PRO*; data reduction: *CrysAlis PRO*; program(s) used to solve structure: *SHELXS97* (Sheldrick, 2008); program(s) used to refine structure: *SHELXL97* (Sheldrick, 2008); molecular graphics: *X-SEED* (Barbour, 2001); software used to prepare material for publication: *publCIF* (Westrip, 2010).

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Supplementary data and figures for this paper are available from the IUCr electronic archives (Reference: BT5614).

References

Agilent (2010). *CrysAlis PRO*. Agilent Technologies, Yarnton, England.
Barbour, L. J. (2001). *J. Supramol. Chem.* **1**, 189–191.
Portilla, J., Quiroga, J., Cobo, J., Low, J. N. & Glidewell, C. (2007). *Acta Cryst.* C**63**, o458–o461.
Sheldrick, G. M. (2008). *Acta Cryst.* A**64**, 112–122.
Westrip, S. P. (2010). *J. Appl. Cryst.* **43**, 920–925.