Acta Crystallographica Section E
Structure Reports Online
ISSN 1600-5368

4-(Chloromethyl)benzophenone

Yang-Ling Zang,[a] Guo-Liang Wu,[a] Wei-Jian Xu[a]* and Chun-Hua Yang[b]

[a]College of Chemistry and Chemical Engineering, Hunan University, Changsha, Hunan, People's Republic of China, and [b]Hunan Haili Chemical Industry Co. Ltd., Changsha, Hunan, People's Republic of China
Correspondence e-mail: weijxu_59@126.com

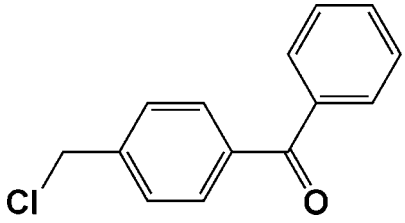
Received 20 June 2007; accepted 24 June 2007

Key indicators: single-crystal X-ray study; T = 293 K; mean σ(C–C) = 0.002 Å; R factor = 0.040; wR factor = 0.103; data-to-parameter ratio = 18.5.

In the title compound {systematic name: [4-(chloromethyl)-phenyl](phenyl)methanone}, $C_{14}H_{11}ClO$, the two benzene rings form a dihedral angle of 58.10 (8)°. The crystal packing is stabilized by intermolecular C—H$\cdots\pi$ interactions which link the molecules into a ribbon along the a axis.

Related literature

For related literature, see: Green & Green (1989); James & Ridgefield (1980); Mejiritski *et al.* (1997); Xu *et al.* (2007).



Experimental

Crystal data

$C_{14}H_{11}ClO$
M_r = 230.68
Monoclinic, $P2_1/n$
a = 7.5227 (5) Å
b = 11.4535 (7) Å
c = 13.5932 (7) Å
β = 102.694 (4)°
V = 1142.58 (12) Å^3
Z = 4
Mo $K\alpha$ radiation
μ = 0.31 mm^{-1}
T = 293 (2) K
0.50 × 0.23 × 0.15 mm

Data collection

Bruker SMART CCD area-detector diffractometer
Absorption correction: multi-scan (*SADABS*; Sheldrick, 1996)
T_{min} = 0.861, T_{max} = 0.955
8204 measured reflections
2678 independent reflections
1936 reflections with $I > 2\sigma(I)$
R_{int} = 0.024

Refinement

$R[F^2 > 2\sigma(F^2)]$ = 0.040
$wR(F^2)$ = 0.103
S = 1.04
2678 reflections
145 parameters
H-atom parameters constrained
$\Delta\rho_{max}$ = 0.17 e Å^{-3}
$\Delta\rho_{min}$ = −0.29 e Å^{-3}

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

*Cg*1 and *Cg*2 are the centroids of the C2–C7 and C9–C14 rings, respectively.

D—H$\cdots A$	D—H	H$\cdots A$	$D\cdots A$	D—H$\cdots A$
C4—H4$\cdots Cg2^{i}$	0.93	2.85	3.6347 (17)	143
C10—H10$\cdots Cg1^{ii}$	0.93	2.94	3.6676 (17)	137

Symmetry codes: (i) $-x+1, -y, -z+2$; (ii) $-x+2, -y, -z+2$.

Data collection: *SMART* (Bruker, 1998); cell refinement: *SAINT* (Bruker, 1999); data reduction: *SAINT*; program(s) used to solve structure: *SHELXS97* (Sheldrick, 1997); program(s) used to refine structure: *SHELXL97* (Sheldrick, 1997); molecular graphics: *SHELXTL* (Bruker, 1999); software used to prepare material for publication: *SHELXTL*.

Supplementary data and figures for this paper are available from the IUCr electronic archives (Reference: CI2397).

References

Bruker (1998). *SMART*. Bruker AXS Inc., Madison, Wisconsin, USA.
Bruker (1999). *SAINT* and *SHELXTL*. Bruker AXS Inc., Madison, Wisconsin, USA.
Green, P. N. & Green, W. A. (1989). Eur. Patent No. 0 333 291.
James, M. P. & Ridgefield, C. (1980). US Patent No. 4 199 420.
Mejiritski, A., Sarker, A. M., Wheaton, B. & Neckers, D. C. (1997). *Chem. Mater.* **9**, 1488–1494.
Sheldrick, G. M. (1996). *SADABS*. University of Göttingen, Germany.
Sheldrick, G. M. (1997). *SHELXS97* and *SHELXL97*. University of Göttingen, Germany.
Xu, W.-J., Zang, Y.-L., Wu, G.-L., Su, S.-P. & Qiu, D.-Y. (2007). *Acta Cryst.* E**63**, o1188–o1189.

 doi:10.1107/S1600536807030814