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Bis{2-[(*E*)-benzyliminomethyl]-4-methylphenolato-κ^2N,O}nickel(II)

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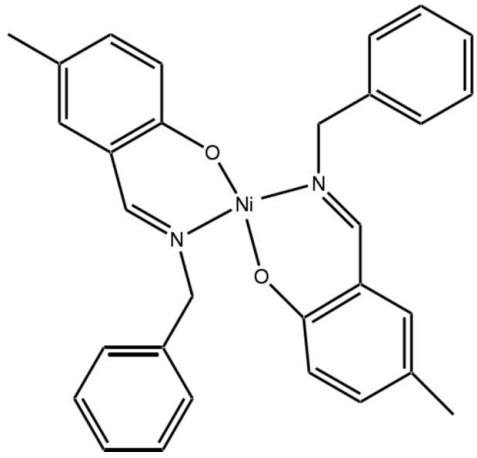
Key indicators: single-crystal X-ray study; T = 296 K; mean σ(C–C) = 0.003 Å; R factor = 0.030; wR factor = 0.081; data-to-parameter ratio = 17.2.

In the title complex, $[Ni(C_{15}H_{14}NO)_2]$, the Ni^{II} atom is located on an inversion centre and is coordinated by two O and two N atoms from two symmetry-related bidentate Schiff base ligands in a slightly distorted square-planar geometry. The phenyl and benzene rings in the ligand molecule form a dihedral angle of 72.79 (8)°.

Related literature

For the synthesis of 2-[(*E*)-(benzylimino)methyl]-4-methylphenol, see: Cohen *et al.* (1964). For the structure of a related Zn complex, see: Rodriguez de Barbarin *et al.* (1994).



Experimental

Crystal data

$[Ni(C_{15}H_{14}NO)_2]$
M_r = 507.26
Monoclinic, $P2_1/c$
a = 13.7182 (15) Å
b = 10.5842 (11) Å
c = 8.6716 (9) Å
β = 107.593 (1)°
V = 1200.2 (2) Å^3
Z = 2
Mo $K\alpha$ radiation
μ = 0.84 mm^{-1}
T = 296 K
0.37 × 0.29 × 0.24 mm

Data collection

Bruker SMART APEXII diffractometer
Absorption correction: multi-scan (*SADABS*; Sheldrick, 2000)
T_{min} = 0.751, T_{max} = 0.819
10296 measured reflections
2765 independent reflections
2303 reflections with $I > 2\sigma(I)$
R_{int} = 0.029

Refinement

$R[F^2 > 2\sigma(F^2)]$ = 0.030
$wR(F^2)$ = 0.081
S = 1.04
2765 reflections
161 parameters
H-atom parameters constrained
$\Delta\rho_{max}$ = 0.35 e Å^{-3}
$\Delta\rho_{min}$ = −0.24 e Å^{-3}

Table 1
Selected geometric parameters (Å, °).

Ni1—O1	1.8294 (12)	Ni1—N1	1.9242 (14)
O1^{i}—Ni1—N1	87.01 (6)	O1—Ni1—N1	92.99 (6)

Symmetry code: (i) $-x+2, -y+1, -z$.

Data collection: *APEX2* (Bruker, 2007); cell refinement: *SAINT* (Bruker, 2007); data reduction: *SAINT*; program(s) used to solve structure: *SHELXS97* (Sheldrick, 2008); program(s) used to refine structure: *SHELXL97* (Sheldrick, 2008); molecular graphics: *SHELXTL* (Sheldrick, 2008); software used to prepare material for publication: *SHELXTL*.

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Supplementary data and figures for this paper are available from the IUCr electronic archives (Reference: IS2434).

References

Bruker (2007). *APEX2* and *SAINT*. Bruker AXS Inc., Madison, Wisconsin, USA.
Cohen, M. D., Schmidt, G. M. J. & Flavian, S. (1964). *J. Chem. Soc.* pp. 2041–2043.
Rodriguez de Barbarin, C. O., Bailey, N. A., Fenton, D. E. & He, Q. (1994). *Inorg. Chim. Acta*, **219**, 205–207.
Sheldrick, G. M. (2000). *SADABS*. University of Göttingen, Germany.
Sheldrick, G. M. (2008). *Acta Cryst.* A**64**, 112–122.

supporting information