

Retraction of articles

This article reports the retraction of 39 articles published in *Acta Crystallographica Section E* between 2004 and 2009.

After thorough investigation (see Harrison *et al.*, 2010), 39 additional articles are retracted as a result of problems with the data sets or incorrect atom assignments. Full details of all the articles are given in Table 1.

Table 1

Details of articles to be retracted, in order of publication.

Title	Reference	Retracted by	DOI	Refcode
<i>trans</i> -Bis[1-[3-(cyclohexylamino)propyliminomethyl]-2-naphtholato]copper(II) dichloride dihydrate	Zhang (2004)	Journal	10.1107/S1600536804028296	BIPDUA
Bis(4-bromo-2-formylphenolato- $\kappa^2 O, O'$)copper(II)	Sun & Gao (2005)	Author	10.1107/S160053680500187X	FEYSUY
Bis(salicylaldehyde)zinc(II)	Xiong & Liu (2005)	Journal	10.1107/S1600536805010913	GAMDUU
Bis(4-bromo-2-formylphenolato- $\kappa^2 O, O'$)zinc(II)	Chen (2006)	Journal	10.1107/S1600536805040432	SAZCUS
Bis(2-formylphenolato- $\kappa^2 O, O'$)nickel(II)	Li & Chen (2006)	Journal	10.1107/S1600536806012931	IDAZAP
Bis(2-formylphenolato)cobalt(II)	Qiu (2006)	Journal	10.1107/S1600536806015704	GEJDUV
Bis(2-formylphenolato- $\kappa^2 O, O'$)manganese(II)	Wang & Fang (2006)	Journal	10.1107/S1600536806021039	IDOVED
Tetraaqua(1,10-phenanthroline- $\kappa^2 N, N'$)copper(II) naphthalene-1,5-disulfonate dihydrate	Liu <i>et al.</i> (2006)	Author	10.1107/S1600536806030637	GENYOO
Tetraaqua(1,10-phenanthroline- $\kappa^2 N, N'$)nickel(II) naphthalene-1,5-disulfonate dihydrate	Liu & Fan (2006)	Author	10.1107/S1600536806035410	KERBEP
{6,6'-Diethoxy-2,2'-[ethane-1,2-diylbis(nitrilomethylidyne)]diphenolato}-trinitratolutetium(III)copper(II)	Sui <i>et al.</i> (2006)	Journal	10.1107/S160053680604565X	HESPEP
Bis(2-formylphenolato- $\kappa^2 O, O'$)iron(II)	Yang <i>et al.</i> (2007)	Author	10.1107/S1600536807021721	PIFCAJ
2,6-Dimethoxybenzohydrazide	Qadeer <i>et al.</i> (2007a)	Journal	10.1107/S1600536807022593	PIFHES
2-(2,4-Dichlorophenylsulfanyl)acetohydrazide	Qadeer <i>et al.</i> (2007b)	Journal	10.1107/S1600536807022891	YIFSOW
{6,6'-Diethoxy-2,2'-[ethane-1,2-diylbis(nitrilomethylidyne)]diphenolato}-trinitratoeuropium(III)zinc(II)	Hu <i>et al.</i> (2007)	Author	10.1107/S1600536807031121	WIHKEE
{ μ -6,6'-Diethoxy-2,2'-[ethane-1,2-diylbis(nitrilomethylidyne)]diphenolato}-trinitratocerium(III)zinc(II)	Sui, Zhang, Hu & Yin (2007)	Author	10.1107/S1600536807032564	WIHREL
{ μ -6,6'-Diethoxy-2,2'-[ethane-1,2-diylbis(nitrilomethylidyne)]diphenolato}-trinitratopraseodymium(III)zinc(II)	Chen <i>et al.</i> (2007)	Author	10.1107/S1600536807032540	WIHRIP
{ μ -6,6'-Diethoxy-2,2'-[ethane-1,2-diylbis(nitrilomethylidyne)]diphenolato}-trinitratopraseodymium(III)nickel(II)	Sui, Li <i>et al.</i> (2007)	Author	10.1107/S1600536807032618	UFACUA
{6,6'-Dimethoxy-2,2'-[ethane-1,2-diylbis(nitrilomethylidyne)]diphenolato-1 $\kappa^4 O^1, O^2, O^3, O^4, O^5, O^6, O^7, O^8, O^9, O^{10}, O^{11}, O^{12}, O^{13}, O^{14}, O^{15}, O^{16}, O^{17}, O^{18}, O^{19}, O^{20}, O^{21}, O^{22}, O^{23}, O^{24}, O^{25}, O^{26}, O^{27}, O^{28}, O^{29}, O^{30}, O^{31}, O^{32}, O^{33}, O^{34}, O^{35}, O^{36}, O^{37}, O^{38}, O^{39}, O^{40}, O^{41}, O^{42}, O^{43}, O^{44}, O^{45}, O^{46}, O^{47}, O^{48}, O^{49}, O^{50}, O^{51}, O^{52}, O^{53}, O^{54}, O^{55}, O^{56}, O^{57}, O^{58}, O^{59}, O^{60}, O^{61}, O^{62}, O^{63}, O^{64}, O^{65}, O^{66}, O^{67}, O^{68}, O^{69}, O^{70}, O^{71}, O^{72}, O^{73}, O^{74}, O^{75}, O^{76}, O^{77}, O^{78}, O^{79}, O^{80}, O^{81}, O^{82}, O^{83}, O^{84}, O^{85}, O^{86}, O^{87}, O^{88}, O^{89}, O^{90}, O^{91}, O^{92}, O^{93}, O^{94}, O^{95}, O^{96}, O^{97}, O^{98}, O^{99}, O^{100}, O^{101}, O^{102}, O^{103}, O^{104}, O^{105}, O^{106}, O^{107}, O^{108}, O^{109}, O^{110}, O^{111}, O^{112}, O^{113}, O^{114}, O^{115}, O^{116}, O^{117}, O^{118}, O^{119}, O^{120}, O^{121}, O^{122}, O^{123}, O^{124}, O^{125}, O^{126}, O^{127}, O^{128}, O^{129}, O^{130}, O^{131}, O^{132}, O^{133}, O^{134}, O^{135}, O^{136}, O^{137}, O^{138}, O^{139}, O^{140}, O^{141}, O^{142}, O^{143}, O^{144}, O^{145}, O^{146}, O^{147}, O^{148}, O^{149}, O^{150}, O^{151}, O^{152}, O^{153}, O^{154}, O^{155}, O^{156}, O^{157}, O^{158}, O^{159}, O^{160}, O^{161}, O^{162}, O^{163}, O^{164}, O^{165}, O^{166}, O^{167}, O^{168}, O^{169}, O^{170}, O^{171}, O^{172}, O^{173}, O^{174}, O^{175}, O^{176}, O^{177}, O^{178}, O^{179}, O^{180}, O^{181}, O^{182}, O^{183}, O^{184}, O^{185}, O^{186}, O^{187}, O^{188}, O^{189}, O^{190}, O^{191}, O^{192}, O^{193}, O^{194}, O^{195}, O^{196}, O^{197}, O^{198}, O^{199}, O^{200}, O^{201}, O^{202}, O^{203}, O^{204}, O^{205}, O^{206}, O^{207}, O^{208}, O^{209}, O^{210}, O^{211}, O^{212}, O^{213}, O^{214}, O^{215}, O^{216}, O^{217}, O^{218}, O^{219}, O^{220}, O^{221}, O^{222}, O^{223}, O^{224}, O^{225}, O^{226}, O^{227}, O^{228}, O^{229}, O^{230}, O^{231}, O^{232}, O^{233}, O^{234}, O^{235}, O^{236}, O^{237}, O^{238}, O^{239}, O^{240}, O^{241}, O^{242}, O^{243}, O^{244}, O^{245}, O^{246}, O^{247}, O^{248}, O^{249}, O^{250}, O^{251}, O^{252}, O^{253}, O^{254}, O^{255}, O^{256}, O^{257}, O^{258}, O^{259}, O^{260}, O^{261}, O^{262}, O^{263}, O^{264}, O^{265}, O^{266}, O^{267}, O^{268}, O^{269}, O^{270}, O^{271}, O^{272}, O^{273}, O^{274}, O^{275}, O^{276}, O^{277}, O^{278}, O^{279}, O^{280}, O^{281}, O^{282}, O^{283}, O^{284}, O^{285}, O^{286}, O^{287}, O^{288}, O^{289}, O^{290}, O^{291}, O^{292}, O^{293}, O^{294}, O^{295}, O^{296}, O^{297}, O^{298}, O^{299}, O^{300}, O^{301}, O^{302}, O^{303}, O^{304}, O^{305}, O^{306}, O^{307}, O^{308}, O^{309}, O^{310}, O^{311}, O^{312}, O^{313}, O^{314}, O^{315}, O^{316}, O^{317}, O^{318}, O^{319}, O^{320}, O^{321}, O^{322}, O^{323}, O^{324}, O^{325}, O^{326}, O^{327}, O^{328}, O^{329}, O^{330}, O^{331}, O^{332}, O^{333}, O^{334}, O^{335}, O^{336}, O^{337}, 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O^{560}, O^{561}, O^{562}, O^{563}, O^{564}, O^{565}, O^{566}, O^{567}, O^{568}, O^{569}, O^{570}, O^{571}, O^{572}, O^{573}, O^{574}, O^{575}, O^{576}, O^{577}, O^{578}, O^{579}, O^{580}, O^{581}, O^{582}, O^{583}, O^{584}, O^{585}, O^{586}, O^{587}, O^{588}, O^{589}, O^{590}, O^{591}, O^{592}, O^{593}, O^{594}, O^{595}, O^{596}, O^{597}, O^{598}, O^{599}, O^{600}, O^{601}, O^{602}, O^{603}, O^{604}, O^{605}, O^{606}, O^{607}, O^{608}, O^{609}, O^{610}, O^{611}, O^{612}, O^{613}, O^{614}, O^{615}, O^{616}, O^{617}, O^{618}, O^{619}, O^{620}, O^{621}, O^{622}, O^{623}, O^{624}, O^{625}, O^{626}, O^{627}, O^{628}, O^{629}, O^{630}, O^{631}, O^{632}, O^{633}, O^{634}, O^{635}, O^{636}, O^{637}, O^{638}, O^{639}, O^{640}, O^{641}, O^{642}, O^{643}, O^{644}, O^{645}, O^{646}, O^{647}, O^{648}, O^{649}, O^{650}, O^{651}, O^{652}, O^{653}, O^{654}, O^{655}, O^{656}, O^{657}, O^{658}, O^{659}, O^{660}, O^{661}, O^{662}, O^{663}, O^{664}, O^{665}, O^{666}, O^{667}, O^{668}, O^{669}, O^{670}, O^{671}, O^{672}, O^{673}, O^{674}, O^{675}, O^{676}, O^{677}, O^{678}, O^{679}, O^{680}, O^{681}, O^{682}, O^{683}, O^{684}, O^{685}, O^{686}, O^{687}, O^{688}, O^{689}, O^{690}, O^{691}, O^{692}, O^{693}, O^{694}, O^{695}, O^{696}, O^{697}, O^{698}, O^{699}, O^{700}, O^{701}, O^{702}, O^{703}, O^{704}, O^{705}, O^{706}, O^{707}, O^{708}, O^{709}, O^{710}, O^{711}, O^{712}, O^{713}, O^{714}, O^{715}, O^{716}, O^{717}, O^{718}, O^{719}, O^{720}, O^{721}, O^{722}, O^{723}, O^{724}, O^{725}, O^{726}, O^{727}, O^{728}, O^{729}, O^{730}, O^{731}, O^{732}, O^{733}, O^{734}, O^{735}, O^{736}, O^{737}, O^{738}, O^{739}, O^{740}, O^{741}, O^{742}, O^{743}, O^{744}, O^{745}, O^{746}, O^{747}, O^{748}, O^{749}, O^{750}, O^{751}, O^{752}, O^{753}, O^{754}, O^{755}, O^{756}, O^{757}, O^{758}, O^{759}, O^{760}, O^{761}, O^{762}, O^{763}, O^{764}, O^{765}, O^{766}, O^{767}, O^{768}, O^{769}, O^{770}, O^{771}, O^{772}, O^{773}, O^{774}, O^{775}, O^{776}, O^{777}, O^{778}, O^{779}, O^{780}, O^{781}, O^{782}, O^{783}, O^{784}, O^{785}, O^{786}, O^{787}, O^{788}, O^{789}, O^{790}, O^{791}, O^{792}, O^{793}, O^{794}, O^{795}, O^{796}, O^{797}, O^{798}, O^{799}, O^{800}, O^{801}, O^{802}, O^{803}, O^{804}, O^{805}, O^{806}, O^{807}, O^{808}, O^{809}, O^{810}, O^{811}, O^{812}, O^{813}, O^{814}, O^{815}, O^{816}, O^{817}, O^{818}, O^{819}, O^{820}, O^{821}, O^{822}, O^{823}, O^{824}, O^{825}, O^{826}, O^{827}, O^{828}, O^{829}, O^{830}, O^{831}, O^{832}, O^{833}, O^{834}, O^{835}, O^{836}, O^{837}, O^{838}, O^{839}, O^{840}, O^{841}, O^{842}, O^{843}, O^{844}, O^{845}, O^{846}, O^{847}, O^{848}, O^{849}, O^{850}, O^{851}, O^{852}, O^{853}, O^{854}, O^{855}, O^{856}, O^{857}, O^{858}, O^{859}, O^{860}, O^{861}, O^{862}, O^{863}, O^{864}, O^{865}, O^{866}, O^{867}, O^{868}, O^{869}, O^{870}, O^{871}, O^{872}, O^{873}, O^{874}, O^{875}, O^{876}, O^{877}, O^{878}, O^{879}, O^{880}, O^{881}, O^{882}, O^{883}, O^{884}, O^{885}, O^{886}, O^{887}, O^{888}, O^{889}, O^{890}, O^{891}, O^{892}, O^{893}, O^{894}, O^{895}, O^{896}, O^{897}, O^{898}, O^{899}, O^{900}, O^{901}, O^{902}, O^{903}, O^{904}, O^{905}, O^{906}, O^{907}, O^{908}, O^{909}, O^{910}, O^{911}, O^{912}, O^{913}, O^{914}, O^{915}, O^{916}, O^{917}, O^{918}, O^{919}, O^{920}, O^{921}, O^{922}, O^{923}, O^{924}, O^{925}, O^{926}, O^{927}, O^{928}, O^{929}, O^{930}, O^{931}, O^{932}, O^{933}, O^{934}, O^{935}, O^{936}, O^{937}, O^{938}, O^{939}, O^{940}, O^{941}, O^{942}, O^{943}, O^{944}, O^{945}, O^{946}, O^{947}, O^{948}, O^{949}, O^{950}, O^{951}, O^{952}, O^{953}, O^{954}, O^{955}, O^{956}, O^{957}, O^{958}, O^{959}, O^{960}, O^{961}, O^{962}, O^{963}, O^{964}, O^{965}, O^{966}, O^{967}, O^{968}, O^{969}, O^{970}, O^{971}, O^{972}, O^{973}, O^{974}, O^{975}, O^{976}, O^{977}, O^{978}, O^{979}, O^{980}, O^{981}, O^{982}, O^{983}, O^{984}, O^{985}, O^{986}, O^{987}, O^{988}, O^{989}, O^{990}, O^{991}, O^{992}, O^{993}, O^{994}, O^{995}, O^{996}, O^{997}, O^{998}, O^{999}, O^{1000}$	Liu & Wen (2007)	Author	10.1107/S1600536807052464	HIQCAM
μ -Acetato-tri- μ -ferrocenecarboxylatobis[(<i>N,N</i> -dimethylformamide)-copper(II)]	Liu, Lin <i>et al.</i> (2007)	Journal	10.1107/S1600536807059041	HIQQEE

Table 1 (continued)

Title	Reference	Retracted by	DOI	Refcode
{ μ -6,6'-Dimethoxy-2,2'-[ethane-1,2-diylbis(nitrilomethylidyne)]diphenolato}- μ -nitrate-dinitratoeuropium(III)zinc(II)	Hu <i>et al.</i> (2008)	Author	10.1107/S160053680706151X	MIRPAF
Bis(4-chloro-2-formylphenolato)nickel(II)	Li <i>et al.</i> (2008)	Author	10.1107/S1600536807056309	RISTET
{ μ -6,6'-Dimethoxy-2,2'-[ethane-1,2-diylbis(nitrilomethylidyne)]diphenolato}- μ -nitrate-dinitratoerbium(III)zinc(II)	Chen <i>et al.</i> (2008)	Author	10.1107/S1600536808006958	QIXHIP
Bis(2-ethoxy-6-formylphenolato- $\kappa^2 O^1, O^6$)nickel(II)	Han (2008)	Journal	10.1107/S160053680800809X	QIXLIT
{ μ -6,6'-Dimethoxy-2,2'-[ethane-1,2-diylbis(nitrilomethylidyne)]diphenolato}- μ -nitrate-dinitratoholmium(III)zinc(II)	Xiao, Sui <i>et al.</i> (2008)	Author	10.1107/S1600536808013743	BIZTUA
{ μ -6,6'-Diethoxy-2,2'-[ethane-1,2-diylbis(nitrilomethylidyne)]diphenolato}-trinitratoholmium(III)nickel(II)	Xiao, Fu <i>et al.</i> (2008)	Author	10.1107/S1600536808013755	BIZVAI
Hydrogen-bonding patterns in the cocrystal terephthalic acid-4,4'-bipyridine (2I)	Wang <i>et al.</i> (2009)	Journal	10.1107/S160053680903236X	DUCZEH
{6,6'-Dimethoxy-2,2'-[ethane-1,2-diylbis(nitrilomethylidyne)]diphenolato- $1\kappa^4 O^1, O^1, O^6, O^6:2\kappa^4 O^1, N, N', O^1$ } (ethanol- $1\kappa O$)- μ -nitrate- $1:2\kappa^2 O:O'$ -dinitrato- $1\kappa^2 O, O'$ -samarium(III)zinc(II)	Huang <i>et al.</i> (2009)	Journal	10.1107/S1600536809033558	YUCWAV

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Key indicators

Single-crystal X-ray study
 $T = 298$ K
Mean $\sigma(C-C) = 0.008$ Å
 R factor = 0.060
 wR factor = 0.150
Data-to-parameter ratio = 17.1For details of how these key indicators were
automatically derived from the article, see
<http://journals.iucr.org/e>.Bis(4-bromo-2-formylphenolato- κ^2O,O')copper(II)

The title compound, $[Cu(C_7H_4BrO_2)_2]$, is a centrosymmetric mononuclear copper(II) complex. The Cu^{II} atom is four-coordinated by four O atoms from two 5-bromosalicylaldehyde ligands, forming a slightly distorted square-planar coordination configuration.

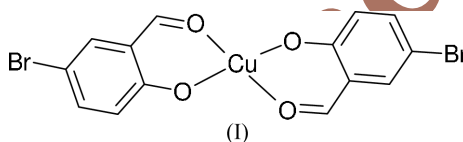
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Comment

Copper compounds are present in the active sites of several important classes of metalloproteins. Studies of copper compounds are of great interest in various areas of chemistry (Downing & Urbach, 1969; Ganeshpure *et al.*, 1996; Bosnich, 1968; Costes *et al.*, 1995).



The molecular structure of the title compound, (I), a mononuclear copper(II) complex, is illustrated in Fig. 1. Selected bond distances and angles are given in Table 1. The Cu^{II} atom, which lies on an inversion center, is in a square-planar geometry and is four-coordinated by four O atoms from two 5-bromosalicylaldehyde ligands. The four coordinating atoms around the central metal are coplanar. The two *trans* angles at the copper(II) center are 180° , by symmetry (Table 1) and the other angles are close to 90° [*viz.* $85.71(18)$ and $94.29(18)^\circ$], thus indicating a slightly distorted square-planar geometry. The $Cu1-O1$ bond length [$1.830(4)$ Å] is a little shorter than the value [$1.889(2)$ Å] observed in a similar copper(II) complex (You *et al.*, 2004).

In the crystal structure of (I) (Fig. 2), the molecules stack along the *b* axis with no short (<3.2 Å) intermolecular contacts.

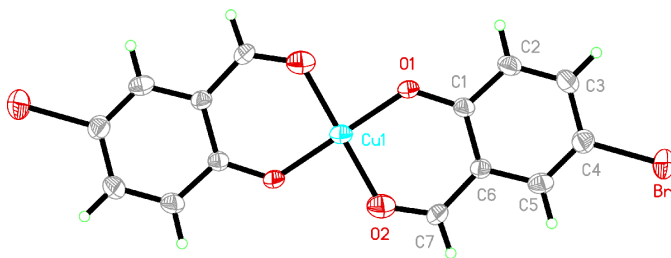


Figure 1

The molecular structure of (I), showing the atom-numbering scheme. Displacement ellipsoids are drawn at the 30% probability level. Unlabeled atoms are related to labeled atoms by the symmetry operation $1-x, -y, -z$.

Experimental

5-Bromosalicylaldehyde (0.1 mmol, 20.1 mg) and $\text{Cu}(\text{ClO}_4)_2 \cdot 6\text{H}_2\text{O}$ (0.1 mmol, 37.1 mg) were dissolved in methanol (10 ml). The mixture was stirred for 1 h to give a clear blue solution. After allowing the resulting solution to stand in air for 5 d, blue block-shaped crystals formed at the bottom of the vessel on slow evaporation of the solvent.

Crystal data

$[\text{Cu}(\text{C}_7\text{H}_4\text{BrO}_2)_2]$	$D_x = 2.100 \text{ Mg m}^{-3}$
$M_r = 463.56$	Mo $K\alpha$ radiation
Monoclinic, $P2_1/c$	Cell parameters from 1600 reflections
$a = 16.2360 (16) \text{ \AA}$	$\theta = 2.5\text{--}23.5^\circ$
$b = 5.6055 (6) \text{ \AA}$	$\mu = 6.95 \text{ mm}^{-1}$
$c = 8.0914 (8) \text{ \AA}$	$T = 298 (2) \text{ K}$
$\beta = 95.305 (2)^\circ$	Block, blue
$V = 733.25 (13) \text{ \AA}^3$	$0.13 \times 0.12 \times 0.10 \text{ mm}$
$Z = 2$	

Data collection

Bruker SMART APEX area-detector diffractometer	1658 independent reflections
φ and ω scans	1064 reflections with $I > 2\sigma(I)$
Absorption correction: multi-scan (SADABS; Sheldrick, 1996)	$R_{\text{int}} = 0.089$
$T_{\text{min}} = 0.427$, $T_{\text{max}} = 0.499$	$\theta_{\text{max}} = 27.5^\circ$
7106 measured reflections	$h = -21 \rightarrow 20$
	$k = -7 \rightarrow 7$
	$l = -10 \rightarrow 10$

Refinement

Refinement on F^2	H-atom parameters constrained
$R[F^2 > 2\sigma(F^2)] = 0.060$	$w = 1/[\sigma^2(F_o^2) + (0.0777P)^2]$
$wR(F^2) = 0.150$	where $P = (F_o^2 + 2F_c^2)/3$
$S = 0.95$	$(\Delta/\sigma)_{\text{max}} < 0.001$
1658 reflections	$\Delta\rho_{\text{max}} = 0.88 \text{ e \AA}^{-3}$
97 parameters	$\Delta\rho_{\text{min}} = -0.63 \text{ e \AA}^{-3}$

Table 1

Selected geometric parameters (\AA , $^\circ$).

Cu1—O1	1.830 (4)	Cu1—O2	1.858 (4)
O1—Cu1—O1 ⁱ	180	O1 ⁱ —Cu1—O2	85.71 (18)
O1—Cu1—O2	94.29 (18)	O2—Cu1—O2 ⁱ	180

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

The H atoms were positioned geometrically and constrained to ride on their parent atoms, with C—H distances of 0.93 \AA and with $U_{\text{iso}}(\text{H}) = 1.2U_{\text{eq}}(\text{C})$.

Data collection: SMART (Bruker, 2002); cell refinement: SAINT (Bruker, 2002); data reduction: SAINT; program(s) used to solve

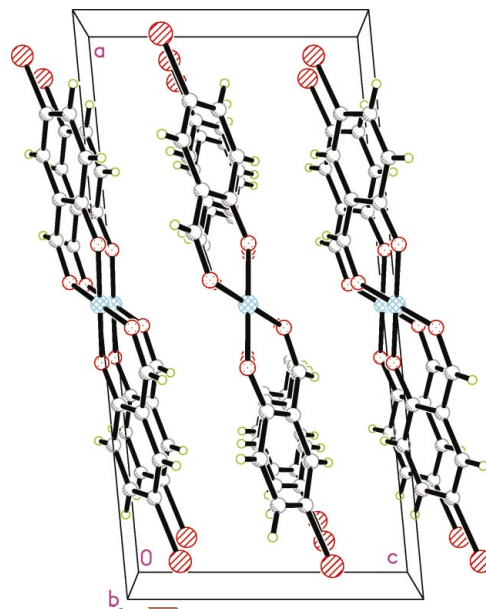


Figure 2

The crystal packing of (I), viewed along the b axis.

structure: *SHELXS97* (Sheldrick, 1997); program(s) used to refine structure: *SHELXL97* (Sheldrick, 1997); molecular graphics: *SHELXTL* (Bruker, 2002); software used to prepare material for publication: *SHELXTL*.

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