Electronic supplementary information for the paper

First structurally confirmed example of the formation of a gold(III) carbon bond via transmetallation with a boroxine.

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Experimental Section

General Considerations: Diethyl ether was dried by refluxing over sodium-potassium alloy and distilled prior to use. Tetrahydrofuran was dried by refluxing over potassium and distilled prior to use. Chemicals and compounds whose syntheses are not mentioned were obtained from commercial sources and used as received. ^{1}H-NMR spectra were recorded on either a Bruker Avance III (400.1 MHz) or a Bruker DPX300 (300 MHz). ^{13}C {^{1}H}-NMR were recorded on either a Bruker Avance III (100.6 MHz) or a Bruker DPX300 (75.4 MHz), and ^{11}B{^{1}H} -NMR were recorded on a Bruker Avance III (128.4 MHz).^{1}H and {^{1}H}-^{13}C NMR spectra were referenced to solvent signals and ^{11}B{^{1}H} to boric acid. Elemental analyses were performed by the Microanalytical Service, The University of Manchester, Manchester, UK. All air and moisture sensitive procedures were carried out under an atmosphere of argon using standard Schlenk techniques.

Syntheses

Preparation of 2-(Me_2NCH_2)C_6H_4Li

Prepared following the procedure of Manzer.[1] To N,N-dimethylbenzylamine (2.4 mL, 16 mmol) in Et_2O (15 mL) under argon was added *n*-butyllithium (10 mL, 16 mmol, 1.6 M in hexanes) and the mixture stirred for 24 h. The white precipitate was filtered under argon, washed with Et_2O (3 x 10 mL) and dried *in vacuo*. It was then transferred to a glovebox for storage.

Typical yield 1.95g, 89%

Preparation of (2-(Me_2NCH_2)C_6H_4BO)$_3$ (1)[2]

To a stirred solution of 2-(Me_2NCH_2)C_6H_4Li (5g, 35.5 mmol) in THF (20 mL) at -78°C was added $B(OMe)_3$ (6.3 mL, 49.2 mmol) and the solution stirred for 1 h before warming to room temperature overnight. The solution was acidified with 1M HCl and brine was added. The phases were separated, the aqueous layer washed with Et_2O and all organic phases combined and washed with saturated Na_2CO_3 solution and brine. The organic layer was dried over $MgSO_4$ and the solvent evaporated to give (2-(Me_2NCH_2)C_6H_4BO)$_3$ (**1**) which was recrystallised from dichloromethane/hexane.

Yield 2.9 g, 50%

Elemental Analysis: Calculated for $C_{27}H_{36}N_3B_3O_3$: C, 67.0; H, 7.5; N, 8.7; B, 6.8; Found: C, 66.4; H, 7.6; N, 8.6; B, 6.8; ^1H NMR ($CDCl_3$, δ ppm): 7.65 (dd, *J*=5.0, 3.5 Hz, 3H, Ph-H), 7.13 - 7.36 (m, 9H, Ph-H), 3.88 (s, 6H, CH_2), 2.46 (s, 18H, NMe_2). ^{13}C NMR {^1H}($CDCl_3$):

(C-B not observed) 141.4, 131.6, 127.2, 126.6, 124.9 (Ph-C), 64.0 (CH_2), 45.1 (CH_3). $^{11}B\{^1H\}$ NMR ($CDCl_3$, δ ppm): = 16.6 (s).

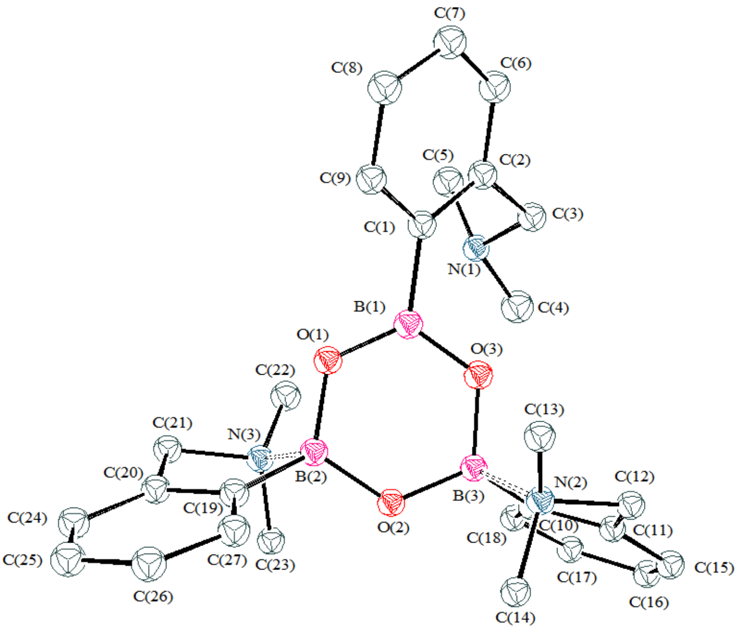

Figure S1: An ORTEP[3] representation of the molecular structure of $(2\text{-}(Me_2NCH_2)C_6H_4BO)_3$ **1**, showing the atomic numbering scheme and thermal ellipsoids are shown at 30% probability level.

Preparation of 2-[(Dimethylamino)methyl]phenylgold(III)dichloride (5)[4]

To a solution of $Na[AuCl_4]$. $2H_2O$ (0.2 g, 0.50 mmol) in H_2O (25 mL) was added $(2\text{-}(Me_2NCH_2)C_6H_4BO)_3$ **1** (0.08 g, 0.17 mmol) in MeCN (5 mL). The yellow mixture was refluxed for 48 h. The acetonitrile was removed under reduced pressure, the mixture filtered and the solid extracted into CH_2Cl_2 (10 mL) and hexane (15 mL) added. The CH_2Cl_2 was removed slowly under reduced pressure to induce crystallisation of [Au(III)(damp-C,N)Cl_2] (**2**) which was collected by filtration.

Yield 0.1 g, 57%

Elemental Analysis: Calculated for $C_9H_{12}NAuCl_2$: C, 26.9; H, 3.0; N, 3.5

Found: C, 26.9; H, 2.7; N, 3.2. ^1H NMR ($CDCl_3$): 7.68 (d, *J*=7.6 Hz, 1 H, Ph-H), 7.15 - 7.31 (m, 2 H, Ph-H), 7.04 - 7.14 (m, 1 H, Ph-H), 4.34 (s, 2 H, CH_2), 3.26 (s, 6 H, NMe_2). $^{13}C\{^1H\}$ NMR ($CDCl_3$): 148.0 (Ph-C), 143.6 (Ph-C), 131.3 (Ph-C), 129.1 (Ph-C), 128.1 (Ph-C), 123.2 (Ph-C), 75.9 (CH_2), 53.8 (NMe_2).

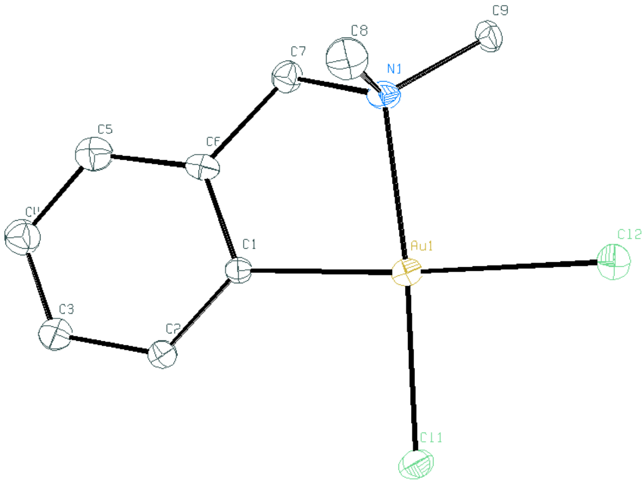

Figure S2: An ORTEP[3] representation of the molecular structure of 2-[(Dimethylamino)methyl]phenylgold(III) **2**, showing the atomic numbering scheme and thermal ellipsoids are shown at 30% probability level.

Preparation of 4-(Me_2NCH_2)$C_6H_4CF_3$[5]

To a solution of 4-($BrCH_2$)$C_6H_4CF_3$ (20 g, 84 mmol) in dichloromethane (150 mL) was added an aqueous solution of dimethylamine hydrochloride (52 g, 0.6 mol) and potassium hydroxide (70.4 g, 1.3 mol) at room temperature. After stirring for 4.5 h the organic phase was separated, washed with brine (3 x 25 mL) and dried over $MgSO_4$. The solvent was removed *in vacuo* to give 4-(Me_2NCH_2)$C_6H_4CF_3$.

Yield 15.2 g, 89%

Elemental Analysis: Calculated for $C_{10}H_{12}F_3N$: C, 59.1; H, 6.0; N, 6.9

Found: C, 59.2; H, 5.6; N, 6.9.

^{1}H NMR ($CDCl_3$): δ = 7.49 (d, J=8.1 Hz, 2 H, Ph-H), 7.35 (d, J=8.1 Hz, 2 H, Ph-H), 3.38 (s, 2 H, CH_2), 2.16 ppm (s, 6 H, NMe_2). 143.3 (q, J_{CF}=1.35 Hz, Ph-C); 129.3 (q, $^2J_{CF}$=32.24 Hz, Ph-C); 129.1 (s, Ph-C); 125.1 (q, J_{CF}=3.84 Hz, Ph-C); 124.3 (q, $^1J_{CF}$=271.83 Hz, CF_3); 63.8 (s, CH_2); 45.4 (s, NMe_2).

Preparation of 2-(Me_2NCH_2)-5-CF_3-C_6H_4Li

To 4-(Me_2NCH_2)$C_6H_4CF_3$ (12.4 g, 61.3 mmol) in hexane (30 mL) under argon was added *n*-butyllithium (42.1 mL, 67.4 mmol, 1.6 M in hexanes) and the mixture was stirred for 48 hours. The white precipitate was filtered under argon, washed with hexane (3 x 15 mL) and dried *in vacuo.* It was then transferred to a glovebox for storage.

Yield 9 g , 70%

Preparation of (2-(Me_2NCH_2)-5-$CF_3C_6H_4BO$)$_3$ (2)

To a stirred solution of 2-(Me_2NCH_2)-5-$CF_3C_6H_4Li$ (3.2 g, 15.3 mmol) in THF (20 mL) at -78 °C was added $B(OMe)_3$ (2.6 mL, 23 mmol) and the solution stirred for 1 h before warming to room temperature overnight. The solution was acidified with 1M HCl and brine was added. The phases were separated and the aqueous layer neutralised with 1M NaOH. The aqueous layer was extracted with dichloromethane the phases separated, and the combined organic fractions dried over $MgSO_4$. The solvent was removed *in vacuo* to give (2-(Me_2NCH_2)-5-$CF_3C_6H_4BO$)$_3$ which was recrystallised from dichloromethane/hexane.

Yield 2.3 g, 66%

Elemental Analysis: Calculated for $C_{30}H_{33}B_3F_9N_3O_3$: C, 52.4; H, 4.8; N, 6.1

Found: C, 52.6; H, 4.7; N, 6.1. ^{1}H NMR ($CDCl_3$): δ = 7.84 (s, 3 H, Ph-H), 7.50 (d, *J*=7.7 Hz, 3 H, Ph-H), 7.27 (d, *J*=8.3 Hz, 3 H, Ph-H), 3.89 (s, 6 H, CH_2), 2.45 (s, 18 H, NMe_2). $^{13}C\{^1H\}$ NMR ($CDCl_3$: δ = (C-B not observed), 145.08 (s, Ph-C); 128.9 (q, $^2J_{CF}$=31.1 Hz, Ph-C); 127.9 (q, J_{CF}=3.5 Hz, Ph-C); 125 (s, Ph-C); 124.9 (q, $^1J_{CF}$= 272.1 Hz, CF_3); 124.3 (q,$^3J_{CF}$=3.7 Hz, Ph-C) .$^{11}B\{^1H\}$ NMR ($CDCl_3$, δ ppm): 14.32 (s).

Preparation of 2-Me_2NCH_2-5-CF_3-$C_6H_4AuCl_2$ (6)

To a solution of Na[$AuCl_4$]. $2H_2O$ (0.2 g, 0.5 mmol) in H_2O (25 mL) was added (2-(Me_2NCH_2)-5-CF_3-$C_6H_4BO)_3$ (0.1 g, 0.2 mmol) in MeCN (5 mL). The yellow mixture was refluxed for 48 h. The acetonitrile was removed under reduced pressure, the mixture filtered and the solid extracted into CH_2Cl_2 (10 mL) and hexane (15 mL) added. The CH_2Cl_2 was removed slowly under reduced pressure to induce crystallisation of 2-Me_2NCH_2-5-$CF_3C_6H_4AuCl_2$ which was collected by filtration.

Yield 0.1 g, 63%

Elemental Analysis: Calculated for $C_{10}H_{11}AuCl_2F_3N$: C, 25.5; H, 2.4; N, 3.0

Found: C, 25.5; H, 2.0; N, 2.9.

^{1}H NMR (d^6-DMSO): δ = 7.98 (s, 1 H), 7.47 (d, *J*=7.9 Hz, 1 H), 7.10 - 7.30 (m, 1 H), 4.41 (s, 2 H), 3.28 (s, 6 H). $^{13}C\{^1H\}$ NMR (d^6-DMSO): δ = 151.1 (s, Ph-C); 146.51 (s, Ph-C); 126.9 (q, $^2J_{CF}$ = 31.6 Hz, Ph-C); 125.8 (q, J_{CF}= 4.0 Hz, Ph-C); 125.3 (q, J_{CF}= 3.9 Hz, Ph-C); 124.60 (s, Ph-C); 123.7 (q, $^1J_{CF}$= 272.7 Hz, CF_3); 74.2 (s, CH_2); 53.3 (s, NMe_2).

Preparation of 1-Me_2NCH_2-4-CH_3-C_6H_4

To a solution of 1-$BrCH_2$-4-CH_3-C_6H_4 (20 g, 0.1 mol) in dichloromethane (150 mL) was added an aqueous solution of dimethylamine hydrochloride (61.7 g, 0.8 mol) in the presence of KOH (84.9 g, 1.5 mol) at room temperature. After stirring for 4.5 h the organic phase was separated and dried over $MgSO_4$. Removal of the solvent afforded 1-Me_2NCH_2-4-CH_3-C_6H_4. Yield 10 g, 61%

Elemental Analysis: Calculated for $C_{10}H_{15}N$: C, 80.5; H, 10.1; N, 9.4

Found: C, 79.9; H, 10.0; N, 9.1. ^1H NMR ($CDCl_3$): $\delta = 6.91 - 7.17$ (m, 4 H, Ph-H), 3.29 (s, 2 H, CH_2), 2.25 (s, 3 H, CH_3), 2.14 ppm (s, 6 H, NMe_2). $^{13}C\{^1H\}$ NMR ($CDCl_3$): $\delta = 136.6$, 135.9, 129.1, 128.9 (Ph-C), 64.2 (CH_2), 45.3 (NMe_2), 21.1 (CH_3) ppm.

Preparation of 2-(Me_2NCH_2)-5-CH_3-C_6H_3Li[6]

To a solution of 1-Me_2NCH_2-4-CH_3-C_6H_4 (7.2 g, 48 mmol) in Et_2O (125 mL) was added *n*-Butyllithium (36.2 mL, 58 mmol, 1.6 M in hexanes) and the mixture was stirred for 3 days. The solution was concentrated to 30 mL and cooled to -20 °C for 24 h. The white precipitate that had formed was filtered under argon, washed with cold hexane (2 x 10 mL) and transferred to a glovebox for storage.

Yield 4.5 g, 61%

Preparation of (2-(Me_2NCH_2)-5-CH_3-C_6H_4BO)$_3$ (3)

To a stirred solution of 2-(Me_2NCH_2)-5-CH_3.C_6H_4Li (2.8 g, 18 mmol) in THF (20 mL) at -78 °C was added $B(OMe)_3$ (3.0 mL, 27.1 mmol) and the solution stirred for 1 h before warming to room temperature overnight. The solution was acidified with 1M HCl and brine was added.

The phases were separated and the aqueous layer neutralised with 1M NaOH. The aqueous layer was extracted with dichloromethane the phases separated, and the combined organic fractions dried over $MgSO_4$. The solvent was removed *in vacuo* to give (2-(Me_2NCH_2)-5-CH_3-C_6H_4BO)$_3$ which was recrystallised from dichloromethane/hexane.

Yield 2.2 g, 68%

Elemental Analysis: Calculated for $C_{30}H_{42}B_3N_3O_3$: C, 68.5; H, 8.1; N, 8.0

Found: C, 68.3; H, 8.3; N, 7.9. ^1H NMR ($CDCl_3$): δ = 7.36 (s, 3 H, Ph-H), 6.96 (s, 6 H, Ph-H), 3.75 (s, 6 H, CH_2), 2.35 (s, 18 H, NMe_2), 2.26 ppm (s, 9 H, CH_3). $^{13}C\{^1H\}$ NMR: δ = 138.5, 135.7, 132.4, 127.9, 124.8 (Ph-C), 63.8 (CH_2), 45.1 (NMe_2), 21.5 (CH_3) ppm. $^{11}B\{^1H\}$ NMR ($CDCl_3$, δ ppm): 15.12 (s).

Preparation of 2-Me_2NCH_2-5-CH_3-$C_6H_4AuCl_2$ (7)

To Na[$AuCl_4$]. $2H_2O$ (0.2 g, 0.50 mmol) in H_2O (25 mL) was added (2-(Me_2NCH_2)-5-$CH_3C_6H_4BO$)$_3$ (0.1 g, 0.2 mmol) in acetonitrile (5 mL). The yellow mixture was refluxed for 48 h. The acetonitrile was removed under reduced pressure, the mixture filtered and the solid extracted into CH_2Cl_2 (10 mL) and hexane (15 mL) added. The CH_2Cl_2 was removed slowly under reduced pressure to induce crystallisation of 2-Me_2NCH_2-5-CH_3-$C_6H_4AuCl_2$ which was collected by filtration.

Yield 0.12 g, 58%

Elemental Analysis: Calculated for $C_{10}H_{14}AuCl_2N$: C, 28.9; H, 3.4; N, 3.4

Found: C, 29.9; H, 3.1; N, 3.4. ^1H NMR ($CDCl_3$): δ = 7.49 (s, 1 H, Ph-H), 6.85 - 7.08 (m, 2 H, Ph-H), 4.28 (s, 2 H, CH_2), 3.24 (s, 6 H, NMe_2), 2.29 (s, 3 H, CH_3). $^{13}C\{^1H\}$ NMR: δ = 148.1, 140.4, 138.4, 131.7, 129.6, 122.8 (Ph-C), 75.7 (CH_2), 53.7 (NMe_2), 21.5(CH_3).

Preparation of 1-Me_2NCH_2-4-OMe-C_6H_4

To a solution of 4-($ClCH_2$)C_6H_4OMe (20 g, 0.13 mol) in dichloromethane (150 mL) was added an aqueous solution of dimethylamine hydrochloride (78.1 g, 1 mol) in the presence of potassium hydroxide (107.3 g, 1.9 mol) at room temperature. After stirring for 4.5 h the organic phase was separated, washed with brine and dried over $MgSO_4$. The solvent was removed to afford 1-Me_2NCH_2-4-OMe-C_6H_4.

Yield 17.7 g, 85%

Elemental Analysis: Calculated for $C_{10}H_{15}NO$: C, 72.7; H, 9.2; N, 8.5

Found: C, 72.4; H, 9.5; N, 8.4. ^{1}H NMR ($CDCl_3$): $\delta = 7.21$ (d, $J = 8.7$ Hz, 2 H, Ph-H), 6.85 (d, $J = 8.7$ Hz , 2 H, Ph-H), 3.76 (s, 3 H, OCH_3), 3.34 (s, 2 H, CH_2), 2.21 ppm (s, 6 H, NMe_2). $^{13}C\{^1H\}$ NMR: $\delta = 158.7$, 131.0, 130.2, 113.6 (Ph-C), 63.7 (CH_2), 55.1 (OCH_3), 45.2 (NMe_2) ppm.

Preparation of (2-(Me_2NCH_2)-5-OMe-C_6H_4BO)$_3$ (4)

To 1-Me_2NCH_2-4-OMe-C_6H_4 (3.6 g, 21.6 mmol) in Et_2O (25 mL) was added *n*-Butyllithium (14.8 mL, 23.7 mmol, 1.6M in hexanes) and the mixture stirred for 18 h at room temperature. The solution was added to a vigorously stirred solution of $B(OMe)_3$ (3.6 mL, 32.3 mmol) in Et_2O (20 mL) at -78°C and allowed to warm to room temperature overnight. The solution was acidified with 1M HCl and brine was added. The phases were separated and the aqueous layer neutralised with 1M NaOH. The aqueous layer was extracted with Et_2O the phases separated, and the combined organic fractions dried over $MgSO_4$. The solvent was removed *in vacuo* to give (2-(Me_2NCH_2)-5-OMe-C_6H_4BO)$_3$ which was recrystallised from dichloromethane/hexane.

Yield 1.9 g, 45%

Elemental Analysis: Calculated for $C_{30}H_{42}B_3N_3O_6$: C, 62.8; H, 7.4; N, 7.3

Found: C, 62.3; H, 7.4; N, 7.2. ^{1}H NMR ($CDCl_3$): δ = 7.18 (d, *J*=2.6 Hz, 3 H, Ph-H)), 7.08 (d, *J*=8.1 Hz, 3 H, Ph-H), 6.77 (dd, *J*=8.1, 2.6 Hz, 3 H, Ph-H), 3.81 (s, 15 H, CH_2 + OCH_3), 2.44 ppm (s, 18 H, NMe_2). $^{13}C\{^1H\}$ NMR: δ = 158.5, 133.6, 125.9, 117.1, 112.3 (Ph-C), 63.5 (CH_2), 55.2 (OCH_3), 45.0 (NMe_2) ppm. $^{11}B\{^1H\}$ NMR ($CDCl_3$, δ ppm): 16.84 (s).

Preparation of 2-Me_2NCH_2-5-OMe-$C_6H_4AuCl_2$ (8)

To Na[$AuCl_4$]. $2H_2O$ (0.2 g, 0.5 mmol) in H_2O (25 mL) was added (2-(Me_2NCH_2)-5-OMe-$C_6H_4BO)_3$ (0.1 g, 0.2 mmol) in MeCN (5 mL) and the mixture refluxed for 48 h. The acetonitrile was removed under reduced pressure, the mixture filtered and the solid extracted into CH_2Cl_2 (10 mL) and hexane added (15 mL). The CH_2Cl_2 was removed slowly under reduced pressure to induce crystallisation of 2-Me_2NCH_2-5-OMe-$C_6H_4AuCl_2$ which was collected by filtration.

Yield 0.08g, 35%

Elemental Analysis: Calculated for $C_{10}H_{14}AuCl_2NO$: C, 27.8; H, 3.3; N, 3.2

Found: C, 27.1; H, 3.0; N, 3.1. ^{1}H NMR ($CDCl_3$): δ = 7.26 (d, *J*=2.4 Hz, 1 H, Ph-H), 6.99 (d, *J*=8.3 Hz, 1 H, Ph-H), 6.74 (dd, *J*=8.3, 2.4 Hz, 1 H, Ph-H), 4.28 (s, 2 H, CH_2), 3.74 (s, 3 H, OCH_3), 3.23 (s, 6 H, NMe_2). $^{13}C\{^1H\}$ NMR: δ = 157.9, 148.5, 135.5, 123.7, 115.7, 115.4 (Ph-C), 75.5 (CH_2), 55.6 (OCH_3), 53.7 (NMe_2).

X-Ray Crystallography

A suitable single crystal was coated in inert perfluoropolyether oil and mounted on a single glass wool strand of *ca.* 3 mm in length glued to a glass fibre.

The X-Ray crystallography measurements were recorded on a Bruker-Nonius Kappa CCD machine using MoKα radiation (λ= 0.71073 Å) at 100 K.

Data were corrected for Lorentz, polarisation and absorption using the multi-scan method.

The data for **1** and **5** showed the unit cells were equivalent to those previously reported see Table S1, and a preliminary solution (isotropic) was carried out to confirm connectivities, see figures S1 and S2; for previously unsolved **7** see Table S2 for crystal data and details of the structure determination and Tables S3 and S4 for Bond lengths (Å) and angles (°).

Table S1: Unit Cell dimensions for compounds **1** and **5**.

	1	**Lit**[2]	**5**	**Lit**[4]
α (°)	-	-	-	-
β (°)	-	-	100.2530(10)	100.22(3)
γ (°)	-	-	-	-
a (Å)	8.9650(6)	8.9765(3)	7.7340(3)	7.896(3)
b (Å)	14.709(1)	14.6975(4)	9.4210(3)	9.487(3)
c (Å)	19.517 (2)	19.6627(6)	15.0630(7)	15.107(6)

Table S2 - Crystal Data and Details of the Structure Determination for: **7** P 21/c R = 0.05

Crystal Data

Formula			C10 H14 Au1 Cl2 N1
Formula Weight			416.09
Crystal System			Monoclinic
Space group		P21/c	(No. 14)
a, b, c [Angstrom]	8.7402(3)	11.1657(5)	16.9401(5)
alpha, beta, gamma [deg]	90	135.074(2)	90
V [Ang**3]			1167.47(8)
Z			4
D(calc) [g/cm**3]			2.367
Mu(MoKa) [/mm]			13.019
F(000)			776
Crystal Size [mm]	0.05 x	0.12 x	0.16

Data Collection

Temperature (K)			100
Radiation [Angstrom]		MoKa	0.71073
Theta Min-Max [Deg]		3.0,	27.5
Dataset	-11: 11 ;	-14: 13 ;	-22: 21
Tot., Uniq. Data, R(int)	8932,	2663,	0.051
Observed data [I > 0.0 sigma(I)]			2372

Refinement

Nref, Npar		2663,	129
R, wR2, S	0.0469,	0.1202,	1.10

w = 1/[\s^2^(Fo^2^)+(0.0362P)^2^+26.3388P] where P=(Fo^2^+2Fc^2^)/

Max. and Av. Shift/Error	0.00, 0.00
Min. and Max. Resd. Dens. [e/Ang^3]	-2.28, 8.18

Table S3 - Bond Distances (Angstrom)

Au1-Cl1	2.385(3)	C3-H3	0.9500
Au1-Cl2	2.287(3)	C4-H4	0.9500
Au1-N1	2.091(10)	C6-H6	0.9500
Au1-C1	2.028(10)	C7-H7A	0.9900
N1-C7	1.484(19)	C7-H7B	0.9900
N1-C8	1.490(19)	C8-H8A	0.9800
N1-C9	1.486(15)	C8-H8B	0.9800
C1-C2	1.393(19)	C8-H8C	0.9800
C1-C6	1.394(14)	C9-H9A	0.9800
C2-C3	1.385(16)	C9-H9B	0.9800
C2-C7	1.502(14)	C9-H9C	0.9800
C3-C4	1.375(15)	C10-H10A	0.9800
C4-C5	1.41(2)	C10-H10B	0.9800
C5-C6	1.372(17)	C10-H10C	0.9800
C5-C10	1.541(15)		

Table S4 - Bond Angles(°)

Cl1-Au1-Cl2	91.99(9)	C3-C4-H4	120.00
Cl1-Au1-N1	94.1(3)	C5-C4-H4	120.00
Cl1-Au1-C1	175.6(3)	C1-C6-H6	120.00
Cl2-Au1-N1	173.8(3)	C5-C6-H6	120.00
Cl2-Au1-C1	92.4(3)	N1-C7-H7A	110.00
N1-Au1-C1	81.5(4)	N1-C7-H7B	110.00
Au1-N1-C7	106.8(6)	C2-C7-H7A	110.00
Au1-N1-C8	107.1(9)	C2-C7-H7B	110.00
Au1-N1-C9	114.1(7)	H7A-C7-H7B	108.00
C7-N1-C8	111.5(9)	N1-C8-H8A	109.00
C7-N1-C9	108.8(12)	N1-C8-H8B	109.00
C8-N1-C9	108.6(9)	N1-C8-H8C	109.00

Au1-C1-C2	112.6(6)	H8A-C8-H8B	110.00
Au1-C1-C6	126.5(10)	H8A-C8-H8C	110.00
C2-C1-C6	120.7(10)	H8B-C8-H8C	110.00
C1-C2-C3	118.5(9)	N1-C9-H9A	109.00
C1-C2-C7	116.5(9)	N1-C9-H9B	110.00
C3-C2-C7	125.0(12)	N1-C9-H9C	109.00
C2-C3-C4	121.4(13)	H9A-C9-H9B	109.00
C3-C4-C5	119.7(11)	H9A-C9-H9C	109.00
C4-C5-C6	119.8(10)	H9B-C9-H9C	109.00
C4-C5-C10	119.9(11)	C5-C10-H10A	109.00
C6-C5-C10	120.4(12)	C5-C10-H10B	109.00
C1-C6-C5	119.9(12)	C5-C10-H10C	109.00
N1-C7-C2	108.7(11)	H10A-C10-H10B	109.00
C2-C3-H3	119.00	H10A-C10-H10C	110.00
C4-C3-H3	119.00	H10B-C10-H10C	109.00

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