

**Cationic, linear Au(I) *N*-heterocyclic carbene complexes: synthesis, structure and anti-mitochondrial activity**

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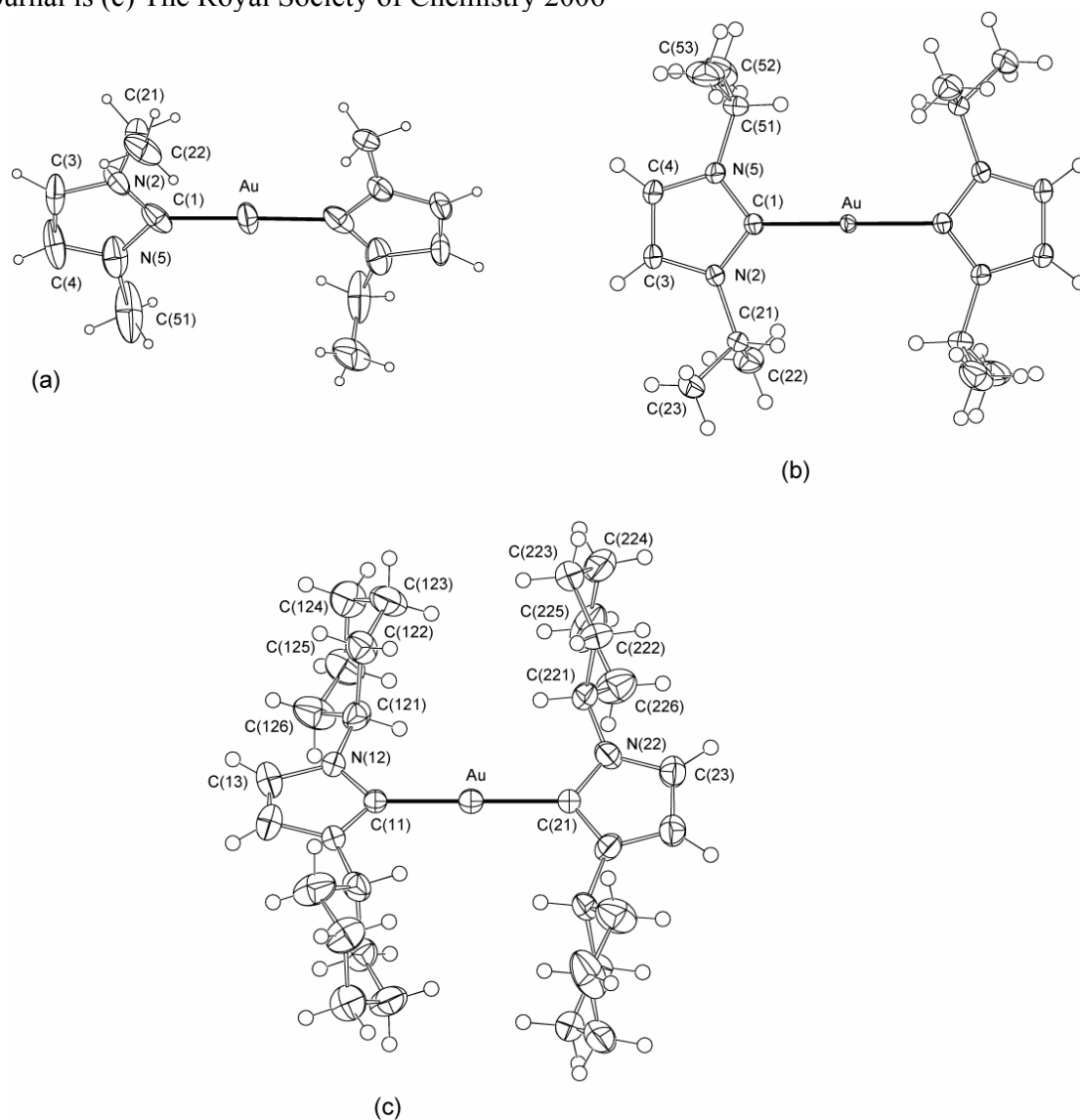
**Fig. S1** (a) The centrosymmetric [(Me,Et-Im)<sub>2</sub>Au]<sup>+</sup> cation in **2.PF<sub>6</sub>**; (b) The centrosymmetric [(*i*-Pr<sub>2</sub>Im)<sub>2</sub>Au]<sup>+</sup> cation in **3.Cl**; (c) The [(Cy<sub>2</sub>Im)<sub>2</sub>Au]<sup>+</sup> cation in **6.PF<sub>6</sub>** (2-symmetry).

**Fig. S2** (a) The three cations of [(*n*-Bu<sub>2</sub>Im)<sub>2</sub>Au]<sup>+</sup> in **4.PF<sub>6</sub>**; cations 1 and 2 are centrosymmetric. (b) Unit cell contents of [(*n*-Bu<sub>2</sub>Im)<sub>2</sub>Au][PF<sub>6</sub>] (**4.PF<sub>6</sub>**) projected down *a*.

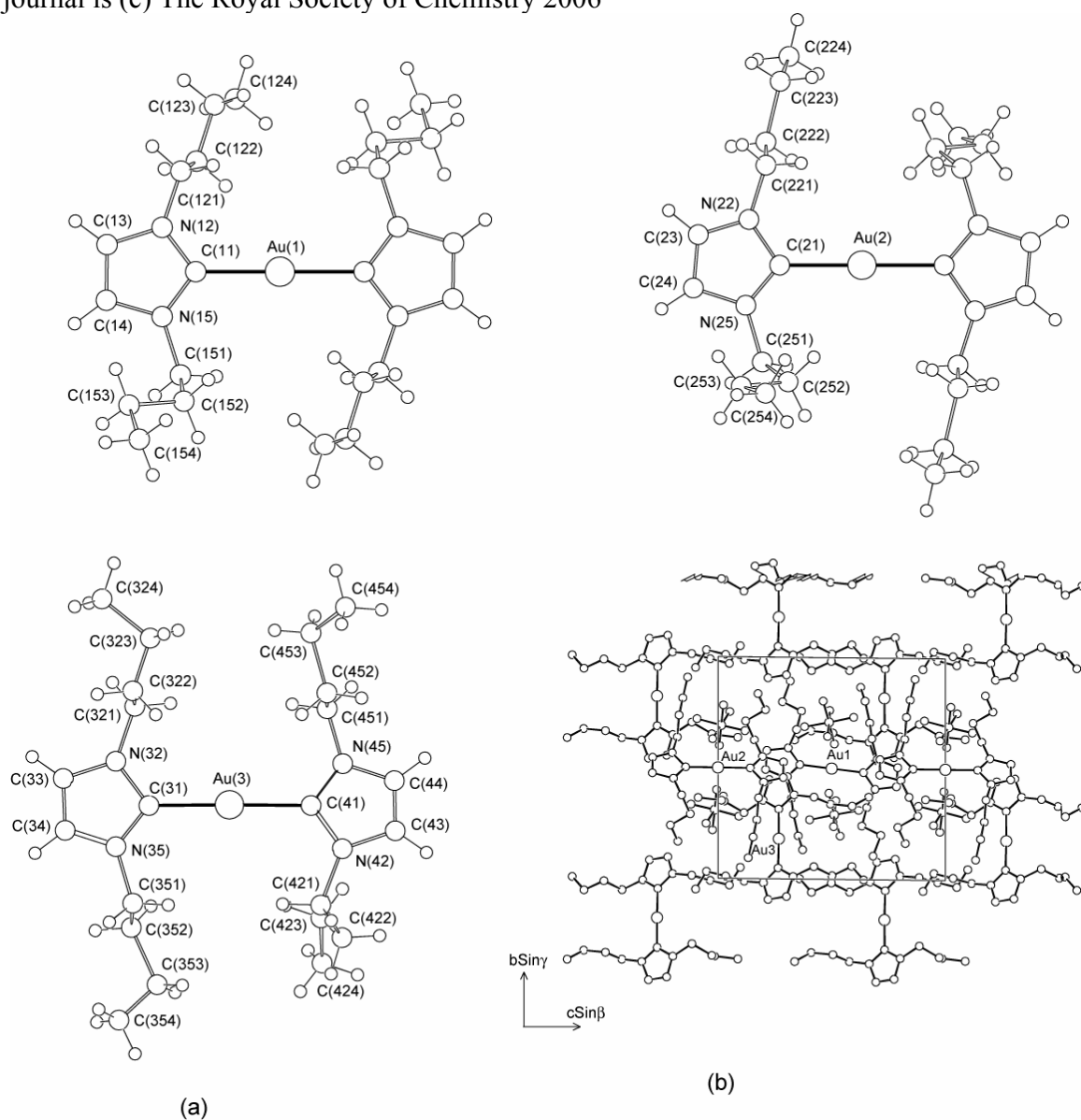
**Table S1.** Microanalysis results for hexafluorophosphate salts.

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**Fig. S1** (a) The centrosymmetric  $[(\text{Me,Et-Im})_2\text{Au}]^+$  cation in **2.PF<sub>6</sub>**; (b) The centrosymmetric  $[(i\text{-Pr}_2\text{Im})_2\text{Au}]^+$  cation in **3.Cl**; (c) The  $[(\text{Cy}_2\text{Im})_2\text{Au}]^+$  cation in **6.PF<sub>6</sub>** (2-symmetry).



**Fig. S2** (a) The three cations of  $[(n\text{-Bu}_2\text{Im})_2\text{Au}]^+$  in  $4.\text{PF}_6$ ; cations 1 and 2 (top two structures in Figure) are centrosymmetric. (b) Unit cell contents of  $[(n\text{-Bu}_2\text{Im})_2\text{Au}][\text{PF}_6]$  ( $4.\text{PF}_6$ ) projected down  $a$ .

**Table S1.** Microanalysis results for hexafluorophosphate salts.

<b>Formula</b>		<b>Found</b>			<b>Calculated</b>		
		<b>C</b>	<b>H</b>	<b>N</b>	<b>C</b>	<b>H</b>	<b>N</b>
<b>1.PF<sub>6</sub></b>	C <sub>10</sub> H <sub>16</sub> N <sub>4</sub> AuPF <sub>6</sub>	22.09	2.71	10.22	22.48	3.02	10.49
<b>3.PF<sub>6</sub></b>	C <sub>18</sub> H <sub>32</sub> N <sub>4</sub> AuPF <sub>6</sub>	33.56	5.03	8.61	33.45	4.99	8.67
<b>4.PF<sub>6</sub></b>	C <sub>22</sub> H <sub>40</sub> N <sub>4</sub> AuPF <sub>6</sub>	37.50	5.89	7.78	37.61	5.74	7.98
<b>5.PF<sub>6</sub></b>	C <sub>22</sub> H <sub>40</sub> N <sub>4</sub> AuPF <sub>6</sub> .EtOH	38.95	6.03	7.66	38.50	6.19	7.48
<b>6.PF<sub>6</sub></b>	C <sub>30</sub> H <sub>48</sub> N <sub>4</sub> AuPF <sub>6</sub>	45.22	6.34	6.78	45.08	6.11	6.87