

Selected bond lengths Å and angles (°) for complex **3-9**.

**Complex 3**

Cu(1)-N(2a)	2.128(8)	Cu(1)-N(6b)	2.141(8)
Cu(1)-N(2b)	2.128(8)	Cu(2)-N(4)	1.933(7)
Cu(1)-N(2)	2.128(8)	Cu(2)-N(5c)	2.003(8)
Cu(1)-N(6a)	2.141(8)	Cu(2)-N(1c)	2.032(7)
Cu(1)-N(6)	2.141(8)	Cu(2)-N(3d)	2.097(8)

N(2a)-Cu(1)-N(2b)	91.1(3)	N(2b)-Cu(1)-N(6b)	89.8(3)
N(2a)-Cu(1)-N(2)	91.1(3)	N(2)-Cu(1)-N(6b)	90.0(3)
N(2b)-Cu(1)-N(2)	91.1(3)	N(6a)-Cu(1)-N(6b)	89.0(3)
N(2)-Cu(1)-N(6a)	89.8(3)	N(6)-Cu(1)-N(6b)	89.0(3)
N(2b)-Cu(1)-N(6a)	90.1(3)	N(4)-Cu(2)-N(5c)	123.4(3)
N(2)-Cu(1)-N(6a)	178.5(3)	N(4)-Cu(2)-N(1c)	126.3(3)
N(2a)-Cu(1)-N(6)	89.8(3)	N(5c)-Cu(2)-N(1c)	98.6(3)
N(2b)-Cu(1)-N(6)	178.5(3)	N(4)-Cu(2)-N(3d)	111.1(3)
N(2)-Cu(1)-N(6)	89.8(3)	N(5c)-Cu(2)-N(3d)	94.1(3)
N(6a)-Cu(1)-N(6)	89.0(3)	N(1c)-Cu(2)-N(3d)	95.8(3)
N(2a)-Cu(1)-N(6b)	178.5(3)		

Symmetry codes: a)  $-x+y, -x+1, z$ ; b)  $-y+1, x-y+1, z$ ; c)  $y, -x+y, -z+1$ ; d)  $-x+1, -y+1, -z+1$

**Complex 4**

Cu(1)-N(2)	1.958(3)	Cu(2)-N(1c)	2.001(3)
Cu(1)-N(2a)	1.958(3)	Cu(2)-N(5d)	2.148(3)
Cu(1)-N(3)	2.339(5)	Cu(2)-N(5e)	2.148(3)
Cu(1)-N(5b)	2.363(4)	Cu(2)-Cu(2f)	2.589 (2)
Cu(2)-N(1)	2.001(3)		

N(2)-Cu(1)-N(2a)	149.80(17)	N(1)-Cu(2)-N(1c)	117.59(15)
N(2)-Cu(1)-N(3)	98.73(9)	N(1)-Cu(2)-N(5d)	106.94(14)
N(2a)-Cu(1)-N(3)	98.73(9)	N(1c)-Cu(2)-N(5d)	109.47(13)
N(2)-Cu(1)-N(5b)	102.29(9)	N(1)-Cu(2)-N(5e)	109.47(13)
N(2a)-Cu(1)-N(5b)	102.29(9)	N(1c)-Cu(2)-N(5e)	106.94(14)
N(3)-Cu(1)-N(5b)	89.57(15)	N(5d)-Cu(2)-N(5e)	105.86(14)

Symmetry codes: a)  $x, y, -z$ ; b)  $-x+1/2, y+1/2, -z$ ; c)  $-x+1, -y-1, z$ ; d)  $x+1/2, -y-1/2, z$ ; e)  $-x+1/2, y-1/2, -z$ ;

f)  $-x+1,-y-1,-z$ ; g)  $x-1/2,-y-1/2,z$ .

### Complex 5

Ag(1)-N(2a)	2.226(4)	Ag(2)-N(1)	2.263(3)
Ag(1)-N(2)	2.226(4)	Ag(2)-N(5d)	2.394(3)
Ag(1)-N(5b)	2.489(5)	Ag(2)-N(5e)	2.394(3)
Ag(1)-N(3)	2.509(5)	N(5)-Ag(2g)	2.394(3)
Ag(2)-Ag(2f)	2.986(4)	N(5)-Ag(2b)	2.394(3)
N(2a)-Ag(1)-N(2)	150.61(13)	N(1)-Ag(2)-N(5d)	114.77(12)
N(2a)-Ag(1)-N(5b)	100.75(7)	N(1c)-Ag(2)-N(5e)	114.77(12)
N(2)-Ag(1)-N(5b)	100.75(7)	N(1)-Ag(2)-N(5e)	100.91(12)
N(2a)-Ag(1)-N(3)	100.97(7)	N(5d)-Ag(2)-N(5e)	102.85(14)
N(2)-Ag(1)-N(3)	100.97(7)	Ag(2g)-N(5)-Ag(2b)	77.15(14)
N(5b)-Ag(1)-N(3)	84.07(12)	Ag(2g)-N(5)-Ag(1e)	113.02(11)
N(1c)-Ag(2)-N(1)	121.61(14)	Ag(2b)-N(5)-Ag(1e)	113.02(11)
N(1c)-Ag(2)-N(5d)	100.91(12)		

Symmetry codes: a)  $x,y,-z$ ; b)  $-x+1/2,y+1/2,-z$ ; c)  $-x+1,-y-1,z$ ; d)  $x+1/2,-y-1/2,z$ ; e)  $-x+1/2,y-1/2,-z$ ;

f)  $-x+1,-y-1,-z$ ; g)  $x-1/2,-y-1/2,z$ .

### Complex 6

Cu(1)-N(15a)	2.017(12)	Cu(4)-N(11g)	1.992(12)
Cu(1)-N(15b)	2.017(12)	Cu(4)-N(2)	2.032(12)
Cu(1)-N(4)	2.066(13)	Cu(4)-N(13d)	2.056(11)
Cu(1)-N(4c)	2.066(13)	Cu(4)-N(8)	2.063(11)
Cu(2)-N(3a)	2.019(13)	Cu(5)-N(10)	2.015(12)
Cu(2)-N(3)	2.019(13)	Cu(5)-N(10h)	2.015(12)
Cu(2)-N(16a)	2.078(12)	Cu(5)-N(5h)	2.038(11)
Cu(2)-N(16)	2.078(12)	Cu(5)-N(5)	2.038(11)
Cu(3)-N(14d)	1.979(12)	Cu(6)-N(6i)	1.997(13)
Cu(3)-N(7e)	2.029(12)	Cu(6)-N(6)	1.997(13)
Cu(3)-N(12f)	2.066(13)	Cu(6)-N(9)	2.120(12)
Cu(3)-N(1)	2.071(12)	Cu(6)-N(9i)	2.120(12)
N(15a)-Cu(1)-N(15b)	113.9(7)	N(11f)-Cu(4)-N(2)	123.3(5)
N(15a)-Cu(1)-N(4)	107.5(5)	N(11f)-Cu(4)-N(13d)	115.0(5)
N(15b)-Cu(1)-N(4)	113.5(5)	N(2)-Cu(4)-N(13d)	107.1(5)

N(15a)-Cu(1)-N(4c)	113.5(5)	N(11f)-Cu(4)-N(8)	106.7(5)
N(15b)-Cu(1)-N(4c)	107.5(5)	N(2)-Cu(4)-N(8)	100.9(5)
N(4)-Cu(1)-N(4c)	100.3(7)	N(13d)-Cu(4)-N(8)	100.5(6)
N(3a)-Cu(2)-N(3)	134.8(8)	N(10)-Cu(5)-N(10h)	116.6(7)
N(3a)-Cu(2)-N(16a)	99.7(5)	N(10)-Cu(5)-N(5h)	107.2(5)
N(3)-Cu(2)-N(16a)	107.1(5)	N(10h)-Cu(5)-N(5h)	108.9(5)
N(3a)-Cu(2)-N(16)	107.1(5)	N(10)-Cu(5)-N(5)	108.9(5)
N(3)-Cu(2)-N(16)	99.7(5)	N(10h)-Cu(5)-N(5)	107.2(5)
N(16a)-Cu(2)-N(16)	106.0(8)	N(5h)-Cu(5)-N(5)	107.6(7)
N(14d)-Cu(3)-N(7e)	127.1(5)	N(6i)-Cu(6)-N(6)	132.6(7)
N(14d)-Cu(3)-N(12f)	110.3(5)	N(6i)-Cu(6)-N(9)	104.3(5)
N(7e)-Cu(3)-N(12f)	106.8(5)	N(6)-Cu(6)-N(9)	106.3(5)
N(14d)-Cu(3)-N(1)	105.4(5)	N(6i)-Cu(6)-N(9i)	106.3(5)
N(7e)-Cu(3)-N(1)	97.7(5)	N(6)-Cu(6)-N(9i)	104.3(5)
N(12f)-Cu(3)-N(1)	107.6(6)	N(9)-Cu(6)-N(9i)	98.0(7)

Symmetry codes: a)x,-y+2,-z+1; b)-x+1,-y+2,z-1/2; c)-x+1,y,-z+1/2; d)  
x-1/2,-y+3/2,-z+1; e)-x+1/2,-y+3/2,z-1/2; f)-x+1,-y+1,z-1/2; g)x-1/2,y+1/2,z;  
h)x,-y+1,-z+1; i)-x+1,y,-z+3/2.

#### Complex 7

Ag(1)-N(4a)	2.178(12)	Ag(1)-N(1)	2.248(11)
Ag(1)-N(2b)	2.231(13)		
N(4a)-Ag(1)-N(2b)	127.3(4)	N(4a)-Ag(1)-N(1)	125.5(4)
N(2b)-Ag(1)-N(1)	107.2(4)		

Symmetry codes: a) x+1/2,-y+1/2,z+1/2; b) -x,-y,-z

#### Complex 8

Ag(1)-N(4a)	2.266(4)	Ag(2)-N(7)	2.314(5)
Ag(1)-N(5)	2.285(4)	Ag(2)-N(12d)	2.319(5)
Ag(1)-N(9b)	2.380(4)	Ag(3)-N(8)	2.105(4)
Ag(1)-N(2)	2.383(5)	Ag(3)-N(11)	2.129(4)
Ag(2)-N(1c)	2.301(4)	Ag(3)-Ag(3e)	3.3222(11)
Ag(2)-N(3)	2.314(5)		
N(4a)-Ag(1)-N(5)	134.31(17)	N(1c)-Ag(2)-N(7)	119.41(17)
N(4a)-Ag(1)-N(2)	107.36(15)	N(3)-Ag(2)-N(12d)	116.47(18)
N(5)-Ag(1)-N(2)	105.70(17)	N(1c)-Ag(2)-N(12d)	104.09(19)
N(4a)-Ag(1)-N(9b)	105.36(18)	N(7)-Ag(2)-N(12d)	105.33(18)
N(5)-Ag(1)-N(9b)	98.07(18)	N(8)-Ag(3)-N(11)	164.3(2)

N(2)-Ag(1)-N(9b)	101.24(17)	N(8)-Ag(3)-Ag(3e)	106.24(16)
N(3)-Ag(2)-N(1c)	106.07(15)	N(11)-Ag(3)-Ag(3e)	71.24(13)
N(3)-Ag(2)-N(7)	106.09(16)		

Symmetry codes: a)  $x+1/2,-y+1/2,-z$ ; b)  $-x+1,-y+1,z+1/2$ ; c)  $x-1/2,-y+1/2,-z$ ; d)  $x,-y+1,-z$ ; e)  $-x+1,y,-z-1/2$ .

### Complex 9

Ag(1)-N(3a)	2.238(3)	Ag(1)-N(5)	2.354(3)
Ag(1)-N(2b)	2.312(3)	Ag(1)-N(4c)	2.469(3)
N(3a)-Ag(1)-N(2b)	110.44(11)	N(3a)-Ag(1)-N(4c)	105.30(10)
N(3a)-Ag(1)-N(5)	133.49(11)	N(2b)-Ag(1)-N(4c)	121.36(11)
N(2b)-Ag(1)-N(5)	101.38(10)	N(5)-Ag(1)-N(4c)	84.65(10)

Symmetry codes: a)  $x,y-1,z$

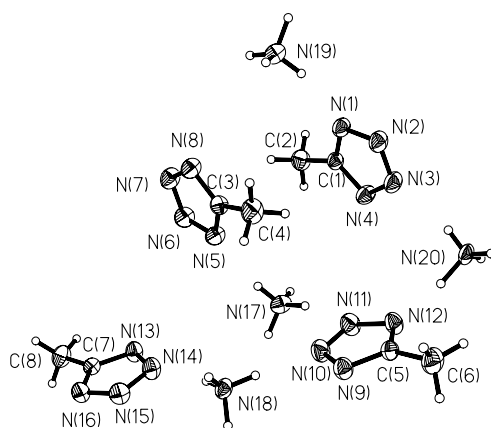
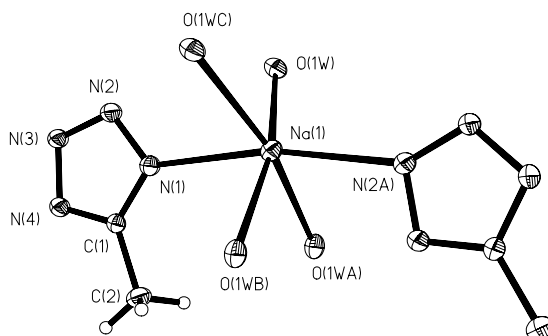
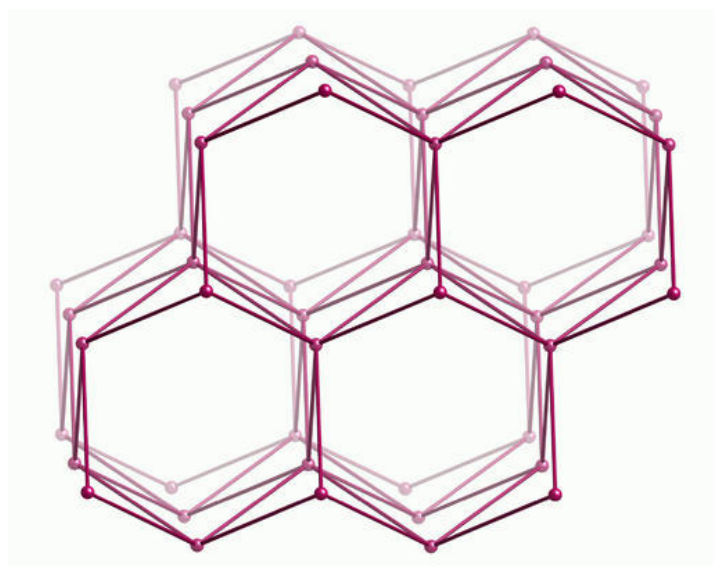


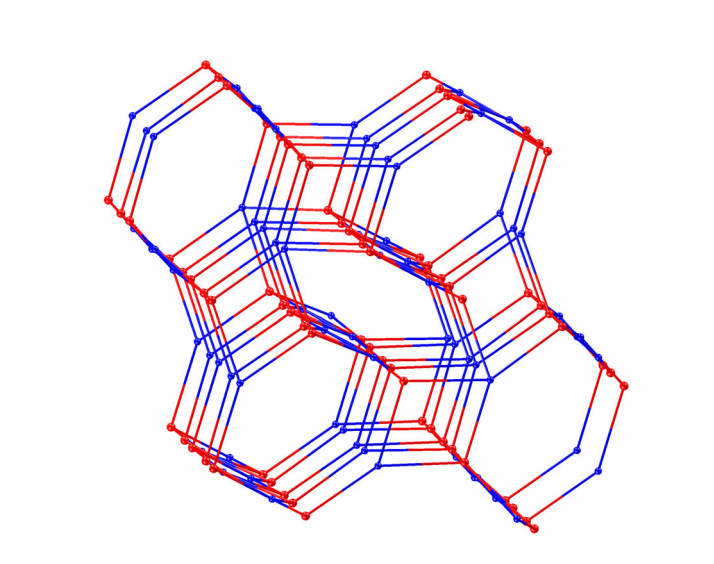
Fig. S1 View of the structure of **1** with 35% thermal ellipsoid.



**Fig. S2** View of the coordination environment of sodium ion in **2**.



**Fig. S3** Network topology in **3**, with the nodes representing clusters viewed down the *c* axis.



**Fig. S4** Network topology in **6**.