

**Table 1: Bond lengths (Å) and angles (°) for [Ni(en)(tren)]<sub>4</sub>Sb<sub>14</sub>S<sub>25</sub> (1).**

Sb(1)-S(20)	2.4621(18)	Ni(1)-N(11)	2.093(6)
Sb(1)-S(24)	2.4704(17)	Ni(1)-N(16)	2.106(6)
Sb(1)-S(11)	2.7170(18)	Ni(1)-N(14)	2.107(6)
Sb(1)-S(8)	2.7293(18)	Ni(1)-N(15)	2.131(6)
Sb(2)-S(3)	2.4618(18)	Ni(1)-N(12)	2.170(6)
Sb(2)-S(21)	2.4953(17)	Ni(1)-N(13)	2.172(6)
Sb(2)-S(14)	2.5165(16)	Ni(2)-N(26)	2.090(5)
Sb(3)-S(14)	2.4374(16)	Ni(2)-N(21)	2.091(5)
Sb(3)-S(15)	2.4824(17)	Ni(2)-N(24)	2.117(6)
Sb(3)-S(10)	2.5323(17)	Ni(2)-N(25)	2.135(5)
Sb(4)-S(12)	2.3682(19)	Ni(2)-N(23)	2.145(6)
Sb(4)-S(1)	2.4415(18)	Ni(2)-N(22)	2.161(6)
Sb(4)-S(5)	2.4908(17)	Ni(3)-N(31)	2.071(5)
Sb(5)-S(2)	2.3517(19)	Ni(3)-N(35)	2.091(7)
Sb(5)-S(1)	2.4686(17)	Ni(3)-N(32)	2.100(7)
Sb(5)-S(15)	2.5187(18)	Ni(3)-N(34)	2.127(6)
Sb(6)-S(8)	2.4075(18)	Ni(3)-N(36)	2.155(7)
Sb(6)-S(17)	2.4138(17)	Ni(3)-N(33)	2.179(6)
Sb(6)-S(7)	2.6052(18)	Ni(4)-N(41)	2.091(6)
Sb(6)-S(18)	2.7992(19)	Ni(4)-N(45)	2.095(6)
Sb(7)-S(24)	2.4394(16)	Ni(4)-N(43)	2.109(7)
Sb(7)-S(5)	2.5175(17)	Ni(4)-N(44)	2.118(7)
Sb(7)-S(9)	2.6382(17)	Ni(4)-N(42)	2.135(6)
Sb(7)-S(12)	2.878(2)	Ni(4)-N(46)	2.141(6)
Sb(8)-S(18) <sup>a</sup>	2.3753(18)		
Sb(8)-S(16)	2.462(2)	N(11)-Ni(1)-N(16)	176.1(2)
Sb(8)-S(17) <sup>a</sup>	2.5912(19)	N(11)-Ni(1)-N(14)	83.0(2)
Sb(8)-S(19)	2.847(2)	N(16)-Ni(1)-N(14)	94.3(2)
Sb(9)-S(23)	2.316(2)	N(11)-Ni(1)-N(15)	101.7(2)
Sb(9)-S(10)	2.4628(18)	N(16)-Ni(1)-N(15)	81.1(2)
Sb(9)-S(13)	2.4897(19)	N(14)-Ni(1)-N(15)	173.9(2)
Sb(10)-S(6)	2.3781(18)	N(11)-Ni(1)-N(12)	82.4(2)
Sb(10)-S(3)	2.4719(17)	N(16)-Ni(1)-N(12)	95.0(2)
Sb(10)-S(4)	2.5087(19)	N(14)-Ni(1)-N(12)	93.6(2)
Sb(11)-S(25)	2.328(2)	N(15)-Ni(1)-N(12)	90.8(2)
Sb(11)-S(22)	2.4697(19)	N(11)-Ni(1)-N(13)	81.3(2)
Sb(11)-S(4)	2.5073(18)	N(16)-Ni(1)-N(13)	101.7(2)
Sb(12)-S(7)	2.4514(19)	N(14)-Ni(1)-N(13)	90.8(2)
Sb(12)-S(20)	2.4563(17)	N(15)-Ni(1)-N(13)	86.2(2)
Sb(12)-S(21) <sup>b</sup>	2.4719(18)	N(12)-Ni(1)-N(13)	162.4(2)
Sb(13)-S(11)	2.4285(19)	N(26)-Ni(2)-N(21)	176.0(2)
Sb(13)-S(9)	2.4375(17)	N(26)-Ni(2)-N(24)	93.9(2)
Sb(13)-S(22) <sup>c</sup>	2.4493(17)	N(21)-Ni(2)-N(24)	82.3(2)
Sb(14)-S(19)	2.353(2)	N(26)-Ni(2)-N(25)	82.0(2)
Sb(14)-S(13)	2.4473(19)	N(21)-Ni(2)-N(25)	101.8(2)
Sb(14)-S(16)	2.492(2)	N(24)-Ni(2)-N(25)	175.9(2)
		N(26)-Ni(2)-N(23)	98.6(2)
S(20)-Sb(1)-S(24)	99.26(7)	N(21)-Ni(2)-N(23)	82.9(2)
S(20)-Sb(1)-S(11)	82.04(6)	N(24)-Ni(2)-N(23)	91.4(2)
S(24)-Sb(1)-S(11)	88.25(6)	N(25)-Ni(2)-N(23)	88.8(2)
S(20)-Sb(1)-S(8)	90.08(6)	N(26)-Ni(2)-N(22)	96.7(2)
S(24)-Sb(1)-S(8)	82.28(5)	N(21)-Ni(2)-N(22)	82.1(2)
S(11)-Sb(1)-S(8)	166.57(6)	N(24)-Ni(2)-N(22)	92.6(2)
S(3)-Sb(2)-S(21)	91.42(6)	N(25)-Ni(2)-N(22)	88.3(2)
S(3)-Sb(2)-S(14)	97.37(6)	N(23)-Ni(2)-N(22)	163.8(2)
S(21)-Sb(2)-S(14)	86.03(5)	N(31)-Ni(3)-N(35)	176.3(3)
S(14)-Sb(3)-S(15)	92.72(6)	N(31)-Ni(3)-N(32)	84.0(3)
S(14)-Sb(3)-S(10)	92.63(6)	N(35)-Ni(3)-N(32)	95.0(4)
S(15)-Sb(3)-S(10)	88.91(6)	N(31)-Ni(3)-N(34)	82.2(2)
S(12)-Sb(4)-S(1)	98.02(7)	N(35)-Ni(3)-N(34)	94.3(3)
S(12)-Sb(4)-S(5)	91.94(6)	N(32)-Ni(3)-N(34)	92.3(3)

S(1)-Sb(4)-S(5)	102.41(6)	N(31)-Ni(3)-N(36)	100.1(3)
S(2)-Sb(5)-S(1)	102.69(7)	N(35)-Ni(3)-N(36)	81.1(4)
S(2)-Sb(5)-S(15)	94.13(6)	N(32)-Ni(3)-N(36)	174.7(3)
S(1)-Sb(5)-S(15)	90.62(6)	N(34)-Ni(3)-N(36)	91.6(3)
S(8)-Sb(6)-S(17)	109.69(7)	N(31)-Ni(3)-N(33)	81.5(2)
S(8)-Sb(6)-S(7)	90.64(6)	N(35)-Ni(3)-N(33)	102.1(3)
S(17)-Sb(6)-S(7)	85.07(6)	N(32)-Ni(3)-N(33)	91.2(3)
S(8)-Sb(6)-S(18)	83.44(6)	N(34)-Ni(3)-N(33)	162.9(2)
S(17)-Sb(6)-S(18)	80.52(6)	N(36)-Ni(3)-N(33)	86.1(3)
S(7)-Sb(6)-S(18)	161.51(6)	N(41)-Ni(4)-N(45)	175.7(3)
S(24)-Sb(7)-S(5)	99.34(6)	N(41)-Ni(4)-N(43)	82.5(3)
S(24)-Sb(7)-S(9)	90.86(6)	N(45)-Ni(4)-N(43)	96.7(3)
S(5)-Sb(7)-S(9)	88.63(5)	N(41)-Ni(4)-N(44)	83.2(3)
S(24)-Sb(7)-S(12)	87.27(6)	N(45)-Ni(4)-N(44)	92.7(3)
S(5)-Sb(7)-S(12)	80.44(5)	N(43)-Ni(4)-N(44)	90.1(3)
S(9)-Sb(7)-S(12)	168.45(6)	N(41)-Ni(4)-N(42)	82.2(3)
S(18) <sup>a</sup> -Sb(8)-S(16)	97.07(8)	N(45)-Ni(4)-N(42)	99.2(3)
S(18) <sup>a</sup> -Sb(8)-S(17) <sup>a</sup>	85.72(6)	N(43)-Ni(4)-N(42)	162.3(3)
S(16)-Sb(8)-S(17) <sup>a</sup>	94.59(7)	N(44)-Ni(4)-N(42)	96.8(3)
S(18) <sup>a</sup> -Sb(8)-S(19)	88.52(7)	N(41)-Ni(4)-N(46)	102.0(2)
S(16)-Sb(8)-S(19)	84.11(6)	N(45)-Ni(4)-N(46)	82.2(3)
S(17) <sup>a</sup> -Sb(8)-S(19)	173.89(6)	N(43)-Ni(4)-N(46)	88.2(3)
S(23)-Sb(9)-S(10)	101.86(7)	N(44)-Ni(4)-N(46)	174.4(3)
S(23)-Sb(9)-S(13)	98.34(7)	N(42)-Ni(4)-N(46)	86.4(3)
S(10)-Sb(9)-S(13)	94.51(6)		
S(6)-Sb(10)-S(3)	94.20(6)		
S(6)-Sb(10)-S(4)	97.59(7)		
S(3)-Sb(10)-S(4)	97.67(6)		
S(25)-Sb(11)-S(22)	100.01(8)		
S(25)-Sb(11)-S(4)	100.99(8)		
S(22)-Sb(11)-S(4)	95.80(7)		
S(7)-Sb(12)-S(20)	92.72(6)		
S(7)-Sb(12)-S(21) <sup>b</sup>	91.00(6)		
S(20)-Sb(12)-S(21) <sup>b</sup>	97.97(6)		
S(11)-Sb(13)-S(9)	93.40(6)		
S(11)-Sb(13)-S(22) <sup>c</sup>	94.25(7)		
S(9)-Sb(13)-S(22) <sup>c</sup>	100.84(6)		
S(19)-Sb(14)-S(13)	103.49(7)		
S(19)-Sb(14)-S(16)	94.80(7)		
S(13)-Sb(14)-S(16)	92.99(7)		

Symmetry transformations used to generate equivalent atoms:

<sup>a</sup>  $x-1, -y+3/2, z-1/2$    <sup>b</sup>  $-x+1, -y+1, -z$    <sup>c</sup>  $-x+1, y-1/2, -z+1/2$

<sup>d</sup>  $x+1, -y+3/2, z+1/2$    <sup>e</sup>  $-x+1, y+1/2, -z+1/2$

**Table 2: Hydrogen bonds of [Ni(en)(tren)]<sub>4</sub>Sb<sub>14</sub>S<sub>25</sub> (1).**

D-H	d(H..A) / Å	<DHA / °	
S2	H42a	2.7024(0)	156.643(2)
	H46a	2.8080(0)	141.118(2)
S4	H34a	2.9288(0)	150.329(2)
	H44b	2.8079(0)	167.700(2)
S5	H15b	2.8196(0)	148.908(2)
S6	H32b	2.9434(0)	135.912(2)
	H43a	2.8684(0)	133.059(2)
	H45a	2.8189(0)	145.886(2)
S7	H26a	2.9118(0)	163.670(2)
S8	H45b	2.9578(0)	133.394(2)
S9	H15b	2.8301(0)	120.975(2)
S10	H14b	2.7197(0)	149.774(2)
	H22b	2.8192(0)	159.812(2)
	H24a	2.6243(0)	143.098(2)
S11	H34b	2.5657(0)	166.933(2)

S13	H16a	2.5011(0)	160.865(2)
S14	H23b	2.6902(0)	174.781(2)
	H25b	2.7205(0)	147.224(2)
S15	H26b	2.7868(0)	161.634(2)
S16	H16b	2.6821(0)	172.229(2)
S17	H23a	2.6477(0)	143.057(2)
	H24b	2.6087(0)	163.569(2)
	H42b	2.6171(0)	152.899(2)
S18	H32a	2.8419(0)	147.121(2)
	H33b	2.7000(0)	139.842(2)
	H35b	2.4534(0)	156.397(2)
	H44a	2.7169(0)	172.201(2)
S19	H22a	2.9848(0)	141.122(2)
	H25a	2.6240(0)	144.075(2)
S20	H36b	2.8574(0)	159.422(2)
	H43b	2.6810(0)	135.847(2)
S22	H15a	2.8947(0)	135.200(2)
S24	H46b	2.6887(0)	145.882(2)
S25	H33a	2.7628(0)	146.693(2)
	H36a	2.9897(0)	145.286(2)

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