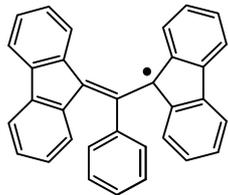
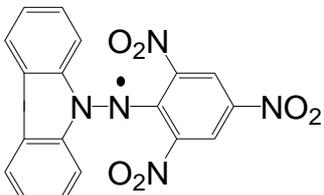
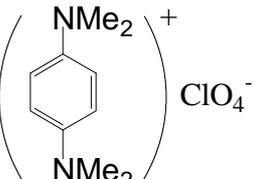
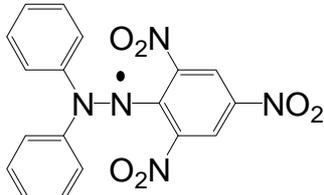
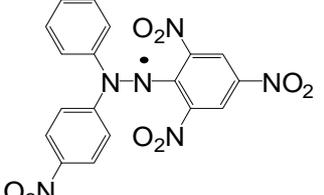
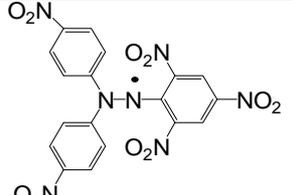
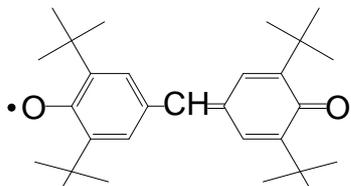
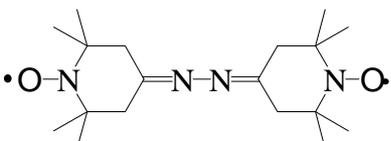
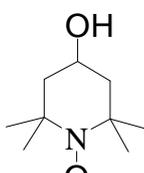
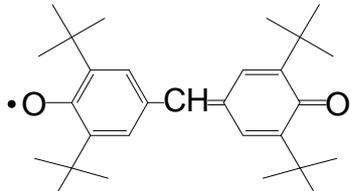
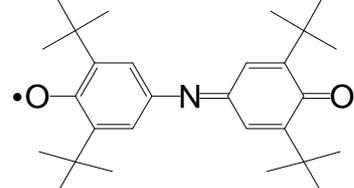
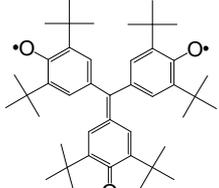
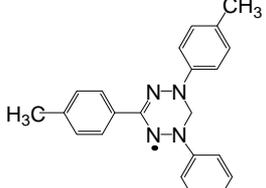
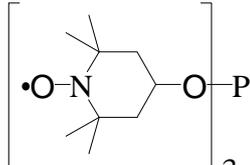
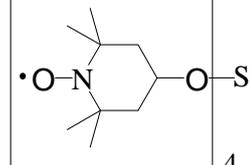
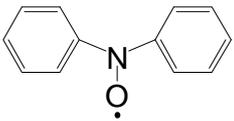
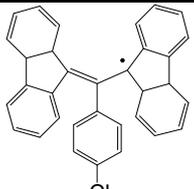
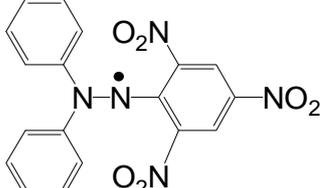
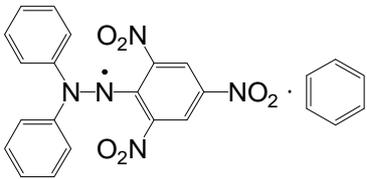
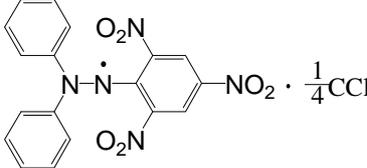
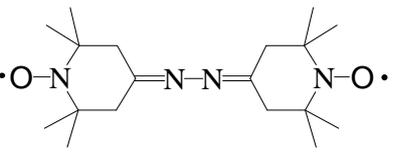
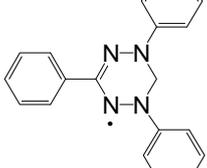
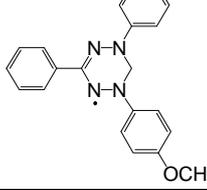
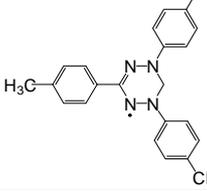
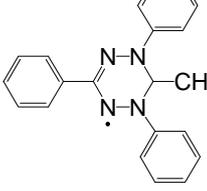
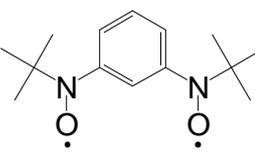
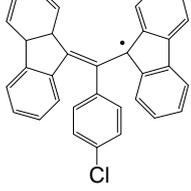
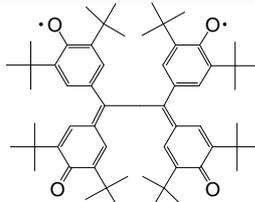
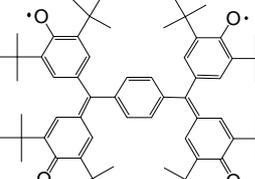
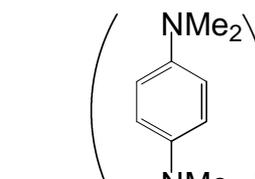
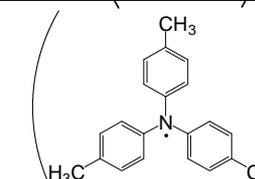
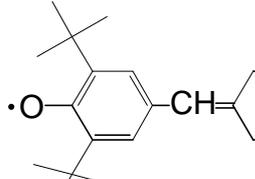
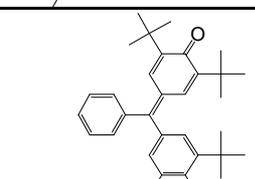
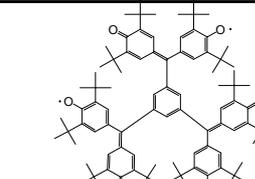
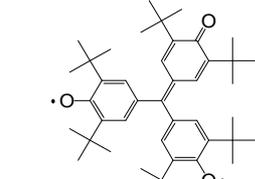
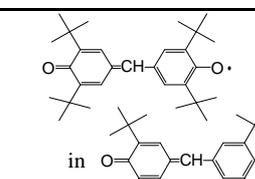
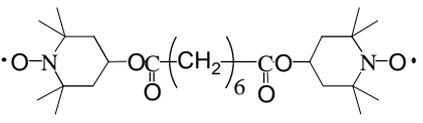
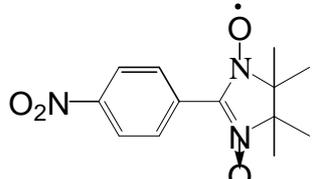
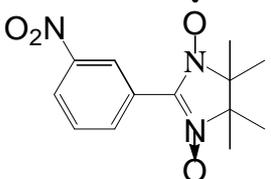
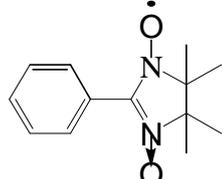
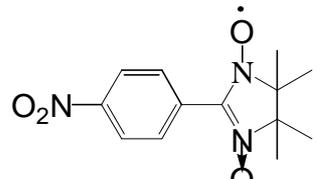
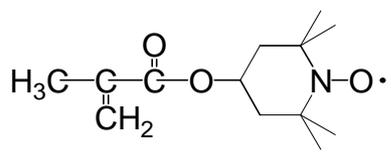
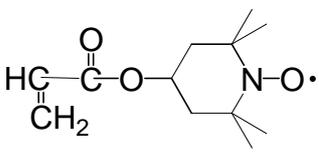
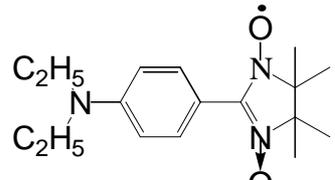
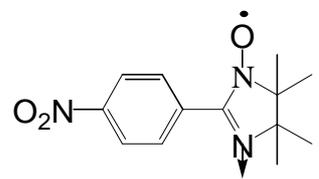


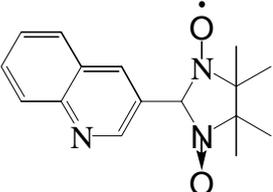
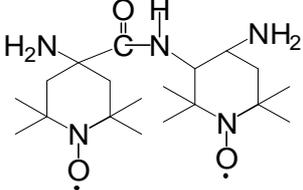
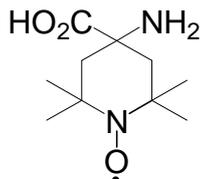
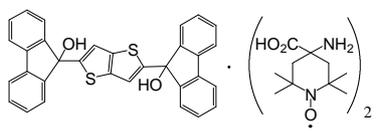
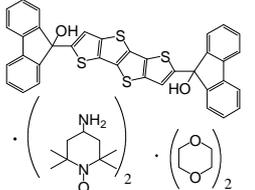
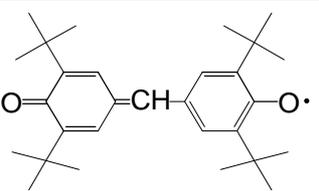
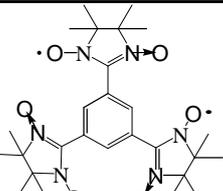
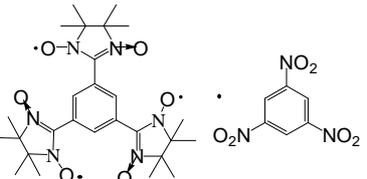
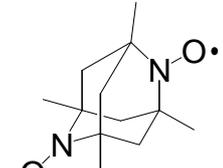
分子構造	備考	文献番号
	ESR 比熱	1, 2
	ESR 磁化率 = -1.51K 比熱	2, 3
	Tc=186K, 189.9K 低温で2量化	2, 31
	結晶[] J=-60K(鎖間) J=-101K(対) 結晶[] J=-43K(鎖間) J=-36K(対)	2, 3
	=-9.4K -5.2K	3
	=-6.22K	3
	0K Tc=82.5Kで diaになる	4, 19, 27, 33, 37
	J=-30K (ダイマーモデル) J=-15K (1次元 Ising モデル)	5, 14, 17
	J=-6.0K(1次元Heisenbergモデル) J=-5.0K(1次元 Isingモデル or STモデル)	6

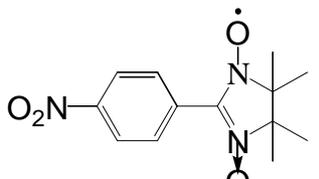
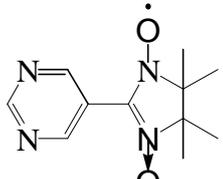
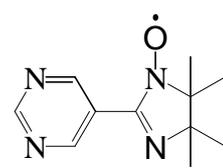
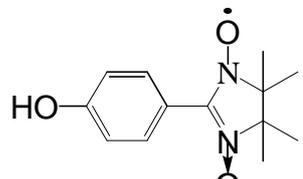
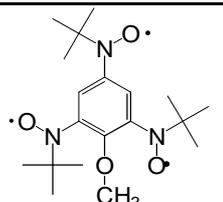
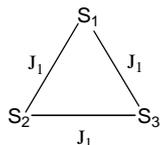
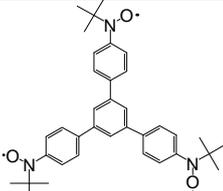
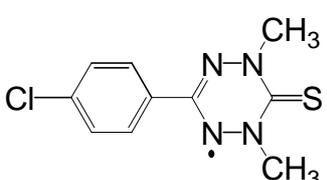
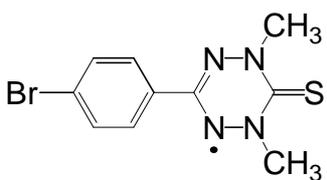
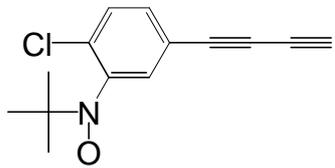
分子構造	備考	文献番号
	$=11 \pm 3\text{K}$ (T 81K)	7
	$J = -60.5\text{cm}^{-1}$ (STモデル)	7
	$= -4 \pm 1\text{K}$	8
	$= -0.4 \pm 0.1\text{K}$ $J = -9.5\text{cm}^{-1}$ (STモデル) $J = -11.8\text{cm}^{-1}$ (1次元 Ising モデル)	9
	$J = -2.7\text{K}$ (Van Vleck式)	10
	$= -3.5\text{K}$ (T 25K) -16K (5K T 15K)	10
	$= -3.5\text{K}$	11
	$T_c = 3.25\text{K}$ (比熱、ESR) 反強磁性体転移	12, 15, 21
	$J = -17.64\text{K}$ (STモデル)	13, 35
分子構造	備考	文献番号

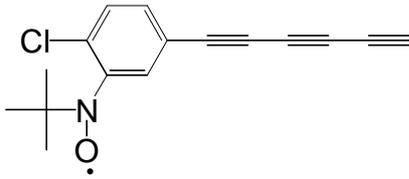
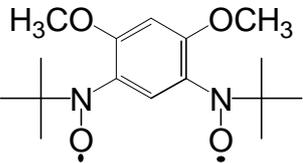
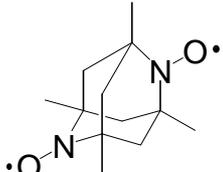
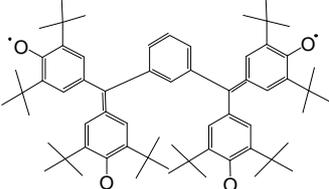
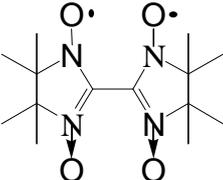
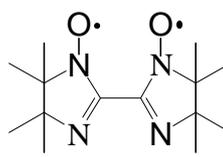
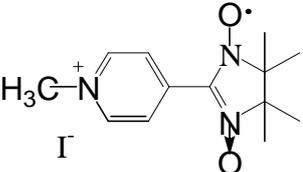
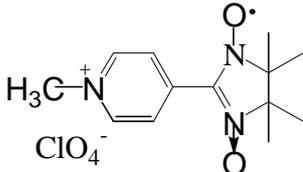
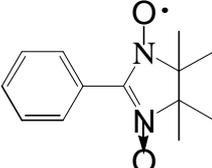
	<p>= -0.5K (T 3K)</p>	<p>13, 28, 35</p>
	<p>= -26.0K (T 30K) -0.3K (T < 30K)</p>	<p>13, 35</p>
	<p>ESR測定 分子間... D =0.00477cm⁻¹ E =0.00032cm⁻¹ 分子間... D' =0.012cm⁻¹ E' =0.003cm⁻¹</p>	<p>16</p>
	<p>J = -5.4K (1次元Heisenbergモデル)</p>	<p>18</p>
	<p>J = -7.3K (1次元Heisenbergモデル) J = -9.4K (1次元 Isingモデル)</p>	<p>20, 36</p>
	<p>結晶構造解析 monoclinic P2₁/m a=8.173(3), b=20.23(1), c=6.075(2) , β=105.4(1) °</p>	<p>22, 36</p>
	<p>結晶構造解析 orthorhombic Pnma a=18.25(1), b=16.65(1), c=5.776(2)</p>	<p>23, 36</p>
	<p>C = 0.96 ± 0.04 emu/mol = -19 ± 2K</p>	<p>24</p>
	<p>反強磁性共鳴 J = -4.4K (鎖内) J' = 0.88K (鎖間)</p>	<p>25, 26</p>

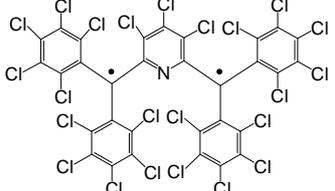
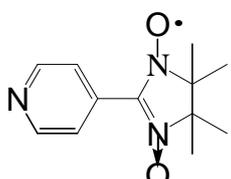
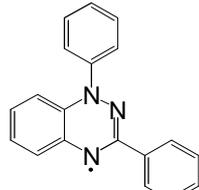
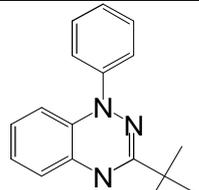
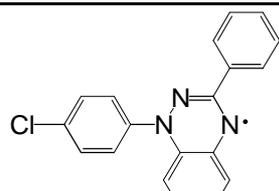
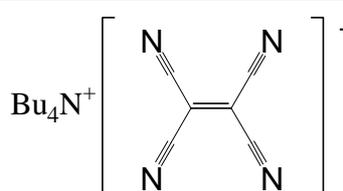
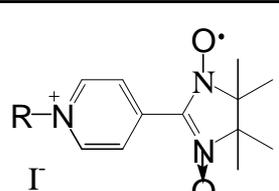
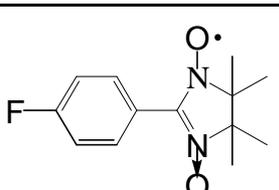
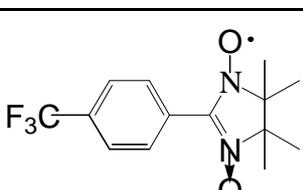
分子構造	備考	文献番号
	<p>$J = -(490 \pm 10) \text{ K}$ (STモデル) $D = 76.0 \pm 0.3 \text{ G}$ $E = 14.5 \pm 0.3 \text{ G}$ $g_{xx} = 2.0042 \pm 0.0002$ $g_{yy} = 2.0059 \pm 0.0002$ $g_{zz} = 2.0032 \pm 0.0002$</p>	29
	<p>$= -8 \pm 2 \text{ K}$ $C = 0.676 \pm 0.002 \text{ K} \cdot \text{emu/mol}$ $= -6 \pm 2 \text{ K}$ $C = 0.627 \pm 0.002 \text{ K} \cdot \text{emu/mol}$</p>	30, 38
	<p>$T_C = 190.5 \text{ K}$, 低温で 2 量化 $E = 73.0 \text{ G}$, $D = 0.0 \text{ G}$</p>	31
	<p>$J = -4.7 \text{ K}$ (1次元Heisenbergモデル) $J = -4.9 \text{ K}$ (STモデル)</p>	32
	<p>ラジカル対のESR $D = 81.4 \pm 0.3 \text{ G}$ $E = 16.0 \pm 0.3 \text{ G}$</p>	34
	<p>電子スペクトル ESR 磁化率</p>	38
	<p>電子スペクトル ESR 磁化率</p>	38
	<p>電子スペクトル ESR 磁化率</p>	38
	<p>(混晶) 2Kまで強磁性的相互作用を維持 $2J_F = 1.5 \pm 0.7 \text{ meV}$ $2J_{AF} = -45 \pm 2 \text{ meV}$</p>	39, 40, 42, 43

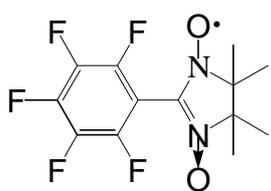
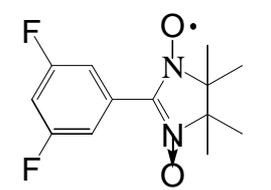
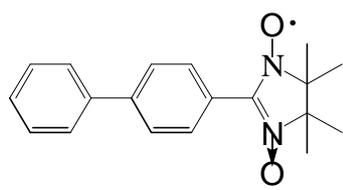
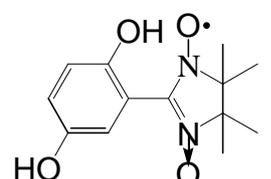
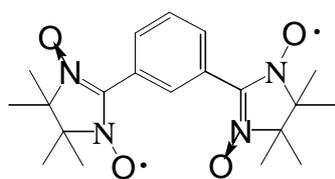
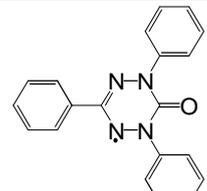
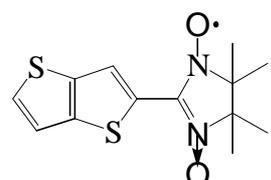
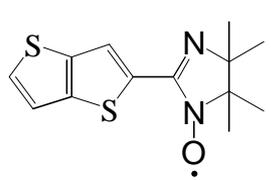
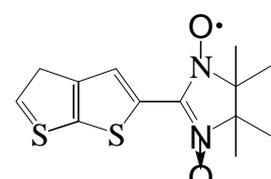
分子構造	備考	文献番号
	$J=1.1K$ $J_1^1=0.07K$ $J_2^1=-0.015K$ $T_n=0.28K$	41
	monoclinic, Cc, $a=10.960(3)$, $b=19.350(3)$ $c=8.257(3)$, $\beta=131.61(1)^\circ$	44
	$=1.9K$ $=-0.5K$	45, 46
	$=-1.4K$	46
	最初の有機ラジカル強磁性体(相) $T_c=0.60K$ 磁化曲線、 dc , ac , 比熱	47, 48, 56
	$=0.2K$ $J=4.3K$ $J'/J=0.05$, $J''/J=-0.04$	49, 67
	$=-1.2K$	49
	$J=-2.45K$ (一次元Heisenberg)	50
	反強磁性体転移(相) $T_N=0.65K$	48

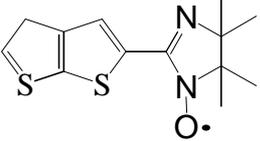
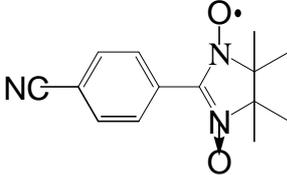
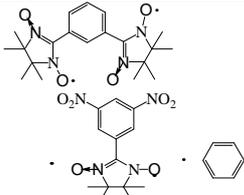
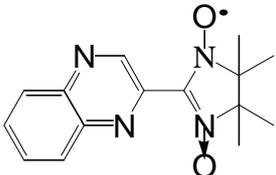
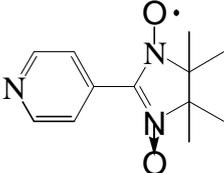
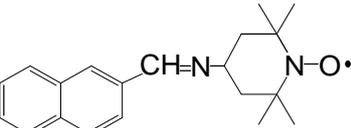
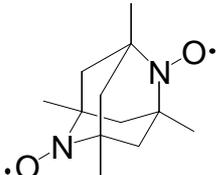
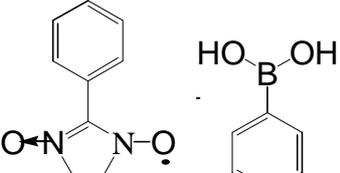
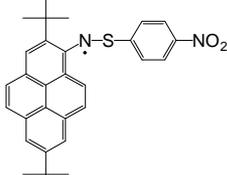
分子構造	備考	文献番号
	<p>=0.27K monoclinic, P2, a=10.5356(8), b=11.0273(7), c=6.1267(5) , β=95.255(6) °</p>	51
	<p>=-11.9K</p>	52
	<p>=-1.19K</p>	52
	<p>常磁性 monoclinic, P2₁/a, a=15.734(2), b=12.653(2), c=12.182(2) , β=110.46(1) °</p>	53
	<p>反強磁性的相互作用 triclinic, P-1</p>	53
	<p>=4.4K (2~300K) 1.1*10⁻³Mのベンゼン溶液から5° でベンゼンを留去して得られた微 結晶</p>	54
	<p>=-14K</p>	55
	<p>J=23K</p>	55
	<p>=10K</p>	57

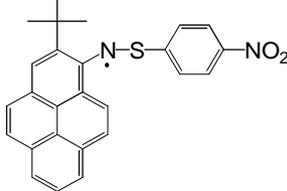
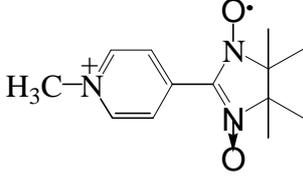
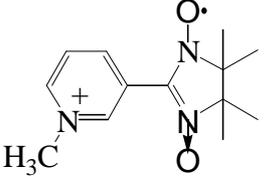
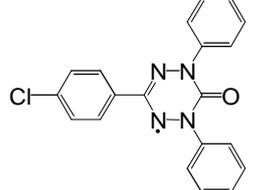
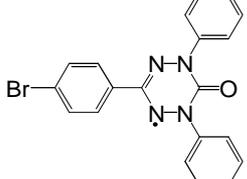
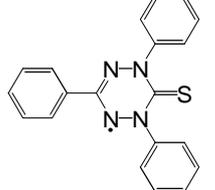
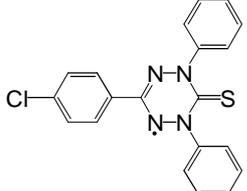
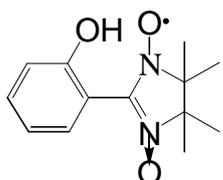
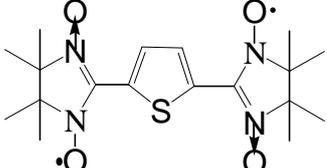
分子構造	備考	文献番号
	μ SR $M [1-(T/T_c)]$ $=1.86, =0.32$	58, 79
	1次元Heisenbergモデル $J=18.2(3)\text{cm}^{-1}$ $J'=-0.77(2)\text{cm}^{-1}$	59
	$2J=-108\text{cm}^{-1}$ (STモデル)	59
	$=0.8\text{K}$	60
	 $J_1=68.4 \pm 2.7\text{K}$ $=0.073 \pm 0.035$ $=-1.72 \pm 0.03\text{K}$	61
	$J_1=J_2=6.8 \pm 0.1\text{K}$ $=-2.13 \pm 0.04\text{K}$	61
	強磁性体 $=3.2\text{K}$, 比熱 $T_c=0.67\text{K}$ 圧力効果 (磁化率、比熱)	62, 80, 86, 90, 96, 102, 111
	$2J=-41.3\text{K}$ (1次元Heisenbergモデル)	62, 96
	$J=-1.2(3)\text{K}$ $=-0.2\text{K}$	63

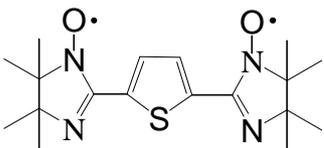
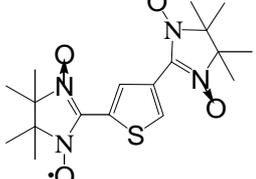
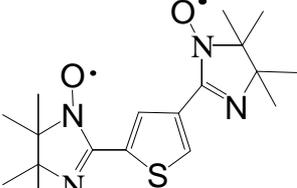
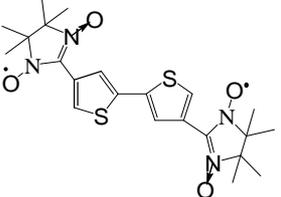
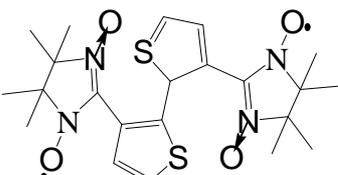
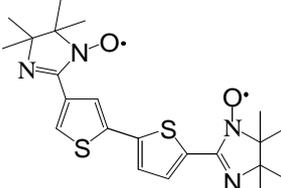
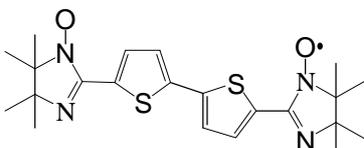
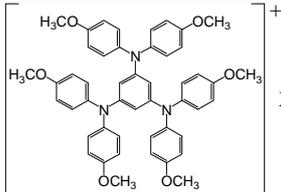
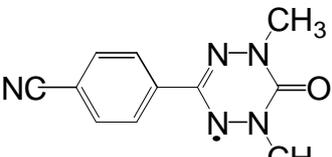
分子構造	備考	文献番号
	<p>$J=1.4(8)K$ $=2.5K$</p>	63
	<p>$2J=-73.8K$</p>	64
	<p>強磁性体 $T_c=1.48 \pm 0.02K$ (最高の転移温度) monoclinic, C2/c $a=8.371$, $b=14.482$, $c=10.329$, $\beta=105.35^\circ$</p>	65
	<p>$=1K$</p>	64
	<p>$2J=-311(6)cm^{-1}$</p>	65
	<p>$2J=-194(4)cm^{-1}$</p>	65
 <p>I</p>	<p>$2J=-145K$ (STモデル) $=-2.7K$</p>	66
 <p>ClO_4^-</p>	<p>$=-1.5K$</p>	66
	<p>偏極中性子回析 分子内のスピン濃度の決定</p>	68

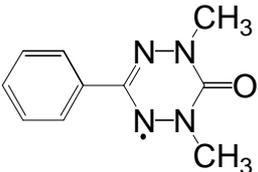
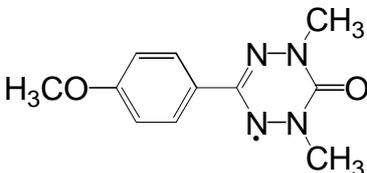
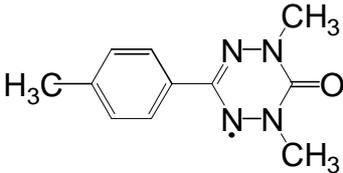
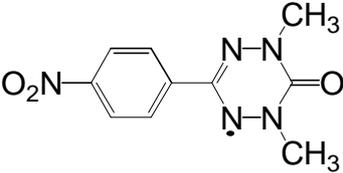
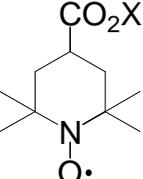
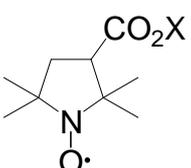
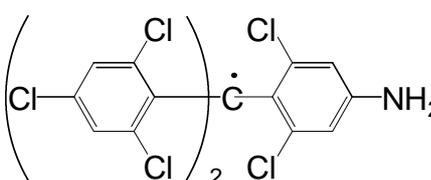
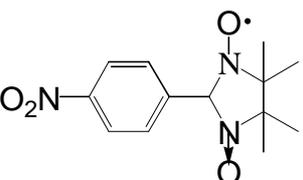
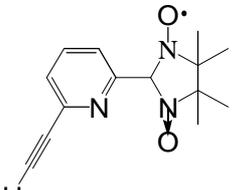
分子構造	備考	文献番号
	$2J=358 \pm 14\text{cm}^{-1}$ (STモデル) $=-2.02 \pm 0.10\text{K}$ $ D =0.0081\text{cm}^{-1}$ $ E =0.00075\text{cm}^{-1}$	69
	ZF- μ SR	70
	=-2.2K	71
	=-0.3K	71
	$2J_1=-220\text{K}$ $J_2/J_1=0.3$	71
	偏極中性子回析 スピン密度分布	72
	$R= \text{CH}_3$ $2J=-148\text{K}$ (STモデル), $=-4.7\text{K}$ $R= \text{C}_2\text{H}_5$ $2J_1=-12.0\text{K}$, $2J_2=3.4\text{K}$ $R= \text{C}_3\text{H}_7$ $2J=4.8\text{K}$, $=-0.7\text{K}$ $R= \text{C}_4\text{H}_9$ $J=0.30\text{K}$ (一次元強磁性鎖)	73
	$J=5.0\text{K}$ (二量体) $J'=0.02\text{K}$ (二量体間)	74
	$J=-10.4\text{K}$, $=0.1$ (一次元鎖、J, J)	75

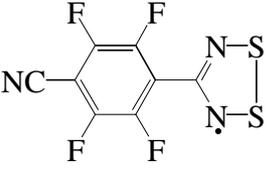
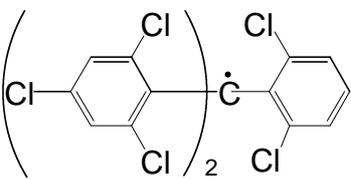
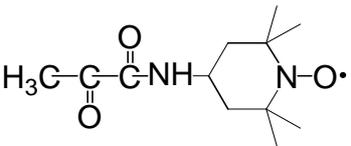
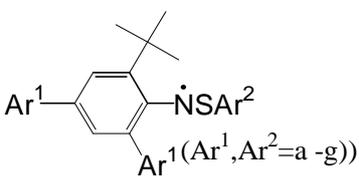
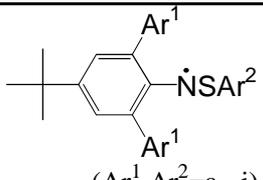
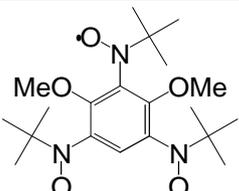
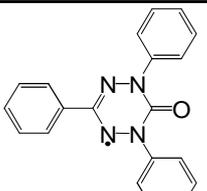
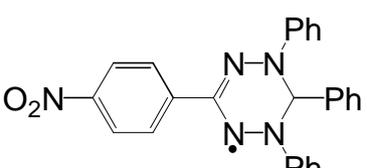
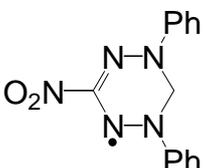
分子構造	備考	文献番号
	$J = -2.8\text{K}$, $\Delta = 0.4$	75
	$J = -10.5 \pm 0.5\text{K}$	75
	$J_A = -8.0 \pm 0.5\text{K}$ $\Delta_A = 0.1$ $J_B = -0.3\text{K}$ $\Delta_B = 0$	75
	強磁性体 相、 $T_c = 0.5\text{K}$ ($J = 0.93\text{K}$, $\Delta = 0.46\text{K}$) (STモデル) 相 $J = 5.0\text{K}$, $\Delta = -0.32\text{K}$ (STモデル)	76, 123
	40Tまでの磁化曲線	77
	$\Delta = -12(2)\text{K}$ 弱強磁性体転移 ($T = 4.9\text{K}$)	78
	monoclinic, $P2_1/a$ $J = 0.11\text{K}$ (一次元Heisenberg)	81
	monoclinic, $P2_1/n$ $\Delta = -0.54\text{K}$	81
	monoclinic, $P2_1/c$ $2J = -5.2\text{K}$ (STモデル)	81

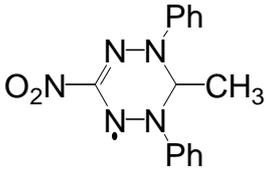
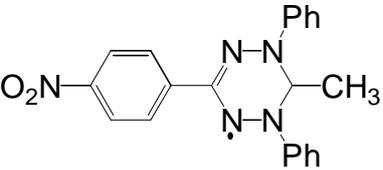
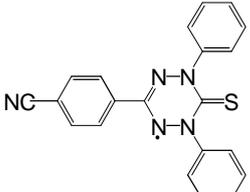
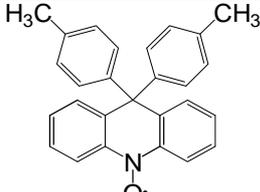
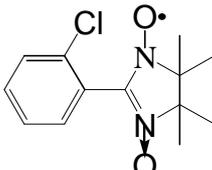
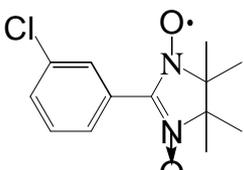
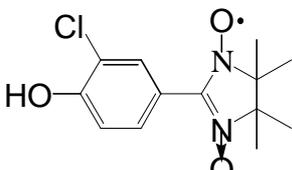
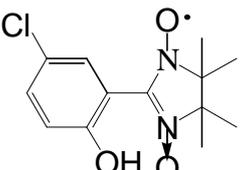
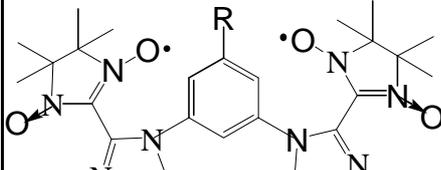
分子構造	備考	文献番号
	monoclinic, $P2_1/c$ $2J = -9.2\text{K}$ (STモデル) $= -0.5\text{K}$	81
	orthorhombic, $Ic2a$ $J = 0.75\text{K}$ (Ferromagnetic square lattice モデル) ESR	82
	$J_1 = 20\text{K}$ (分子内) $J_2 = -30\text{K}$ (分子間)	83
	$T_c = 0.21\text{K}$ (μSR , ac) canted ferromagnetism $J = 0.28\text{K}$	84
	$T_c = 0.11\text{K}$ (μSR , ac) 鎖内に強磁性秩序形成	84
	$T_N = 0.12\text{K}$ メタ磁性体	85
	偏極中性子回析 スピン密度の決定	87
	$J = 0.65\text{K}$ $J' = -0.40\text{K}$	88
	$J = -108\text{K}$	89

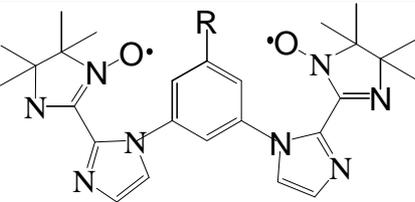
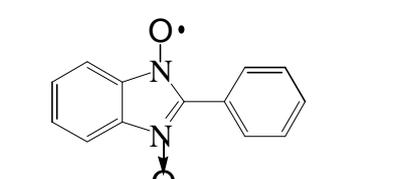
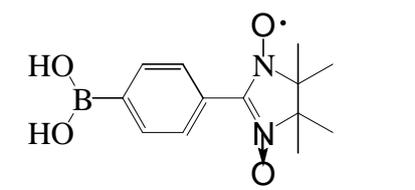
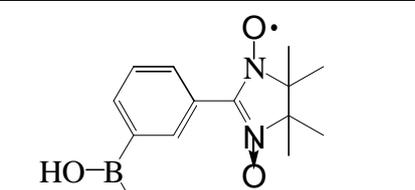
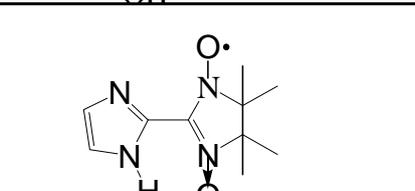
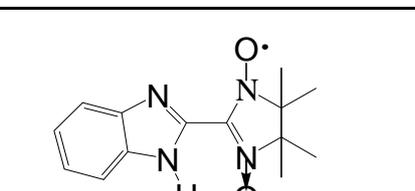
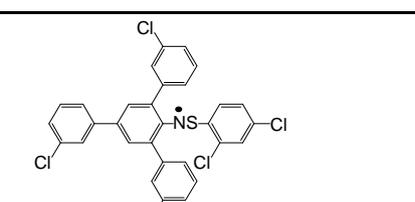
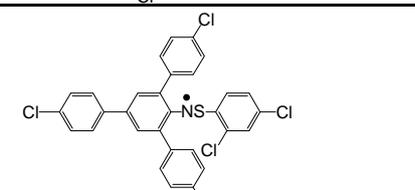
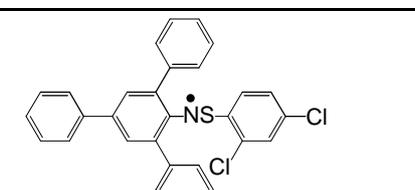
分子構造	備考	文献番号
	<p>J=-192K</p>	<p>89</p>
	<p>in saponite clay 常磁性</p>	<p>91</p>
	<p>in saponite clay 常磁性</p>	<p>91</p>
	<p>=2.5K 強磁性体 Tc=0.21K J=5.5K, zJ'=3 × 10⁻²K</p>	<p>92, 101</p>
	<p>=-7.7K</p>	<p>92</p>
	<p>2J₁=-66.0K =J₂/J₁=0.6 (Heisenberg モデル)</p>	<p>92</p>
	<p>2J₁=-58.5K (Heisenberg モデル)</p>	<p>92</p>
	<p>強磁性体 Tc=0.45K</p>	<p>93, 97, 131</p>
	<p>J=-115K</p>	<p>94</p>

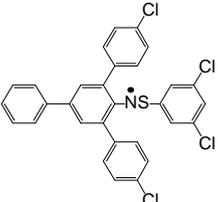
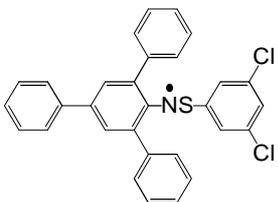
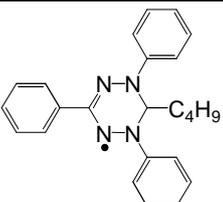
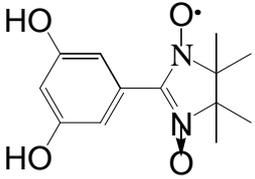
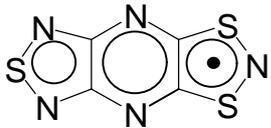
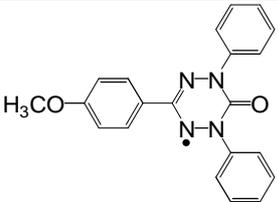
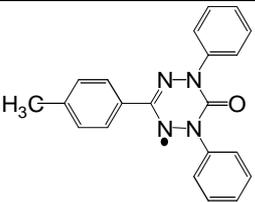
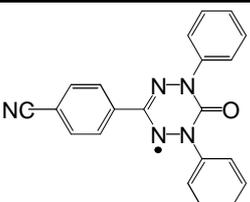
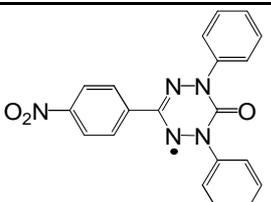
分子構造	備考	文献番号
	J=-30K	94
	J=40K	94
	J=16K	94
	J=0K	94
	J=-6K	94
	J=3K	94
	J=-7.5K	94
	X ⁻ =ClO ₄ ⁻ , BF ₄ ⁻ -1K	95
	スピンパイエルズ転移 T _c =16K T > 16K 1次元 Heisenbergモデル 2J=-84K	98, 128, 129

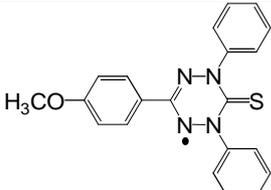
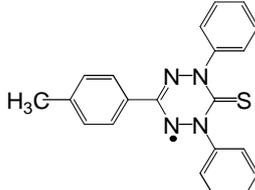
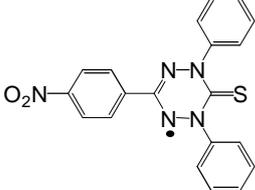
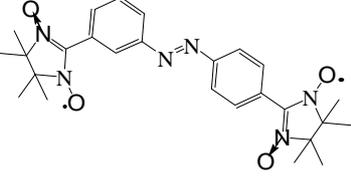
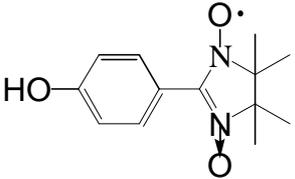
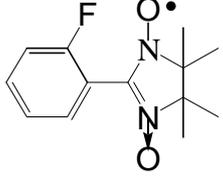
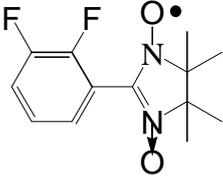
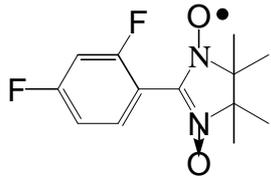
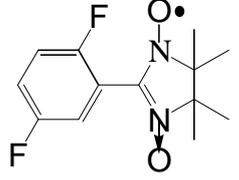
分子構造	備考	文献番号
	$2J_1 = -83\text{K}$, $2J_2 = -42\text{K}$ (1次元 Heisenbergモデル)	98
	$2J_1 = -55\text{K}$, $2J_2 = -27\text{K}$ (1次元 Heisenbergモデル)	98
	$J = -30\text{K}$ (1次元 Heisenbergモデル)	98
	$= -(2.0 \pm 0.2)\text{K}$ (1次元 Heisenbergモデル)	98
	$X = \text{H}$, -20K $X = \text{Li}$, -1.4K $X = \text{Na}$, 0.5K $X = \text{K}$, 0.6K	99
	$X = \text{H}$, -10K $X = \text{Li}$, -2.1K $X = \text{Na}$, -0.5K $X = \text{K}$, -1.9K	99
	$= -1.3\text{K}$	100
	磁化率と比熱の圧力効果 $T_c = 0.61\text{K}$ (1bar) $T_c = 0.35\text{K}$ (7.2kbar) 6.5kbar付近で反強磁性体に転移	103, 125
	強磁性体 $T_c = 0.2\text{K}$	104

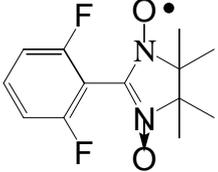
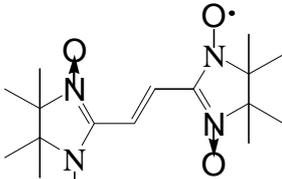
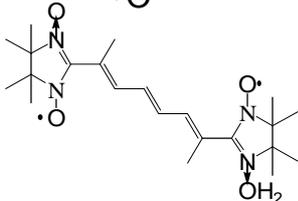
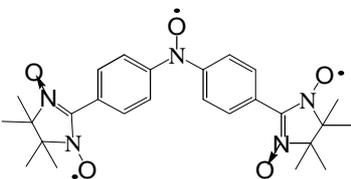
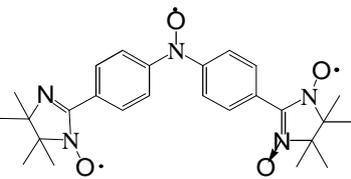
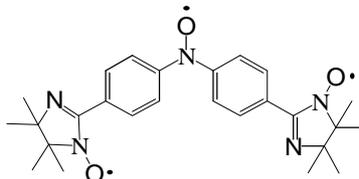
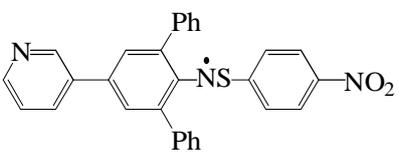
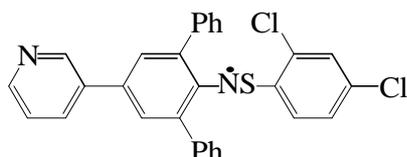
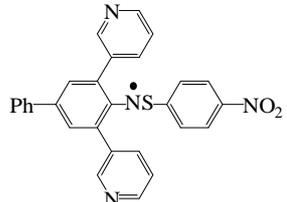
分子構造	備考	文献番号
	弱強磁性体 $T_c=36K$ 傾角 $= (0.085 \pm 0.005)^\circ$ $M_s(0) = (1.5 \pm 0.1) \times 10^{-3} \mu_B$	105
	$= -1.8K$	106
	比熱測定 比熱からは強磁性体に見えるが磁気測定では反強磁性体	107
	a: $Ar^1=Ph, Ar^2=3-NO_2C_6H_4$ b: $Ar^1=Ph, Ar^2=4-NO_2C_6H_4$ c: $Ar^1=Ph, Ar^2=2,4-Cl_2C_6H_3$ d: $Ar^1=Ph, Ar^2=3,5-Cl_2C_6H_3$ e: $Ar^1=Ph, Ar^2=4-ClC_6H_4$	108
	f: $Ar^1=Ph, Ar^2=4-Br-C_6H_4$ g: $Ar^1=4-ClC_6H_4, Ar^2=3-NO_2C_6H_4$ h: $Ar^1=4-ClC_6H_4, Ar^2=4-NO_2C_6H_4$ i: $Ar^1=4-ClC_6H_4, Ar^2=2,4-Cl_2C_6H_3$ j: $Ar^1=4-ClC_6H_4, Ar^2=3,5-Cl_2C_6H_3$	108
	$H = -2J(S_{A1}S_B + S_B S_{A2} + S_{A1}S_{A2})$ $J = -41.5K, \quad = 0.31$	109
	2次元 Heisenberg反強磁性体、 $J = -4.3K$ 弱強磁性体転移、 比熱 $T_c = 5.4K$	110, 122, 127
	$T_N = 1.16 \pm 0.04K$	112
	$2J = -11.6K$ (1次元 Heisenbergモデル)	112

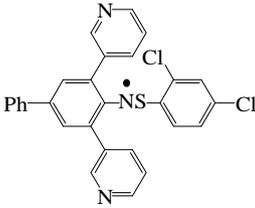
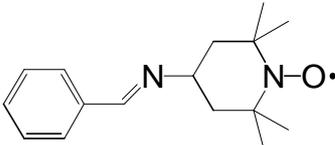
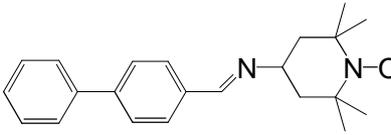
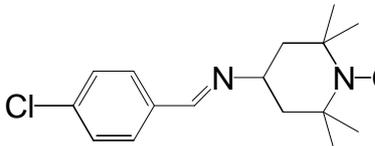
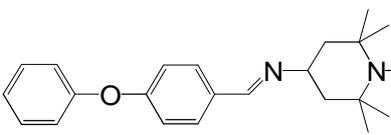
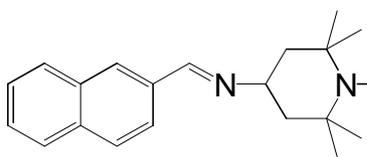
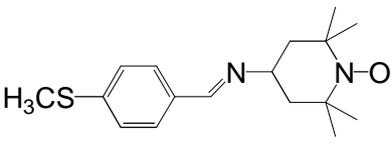
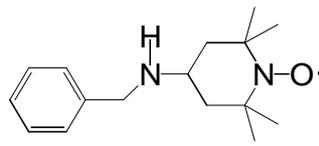
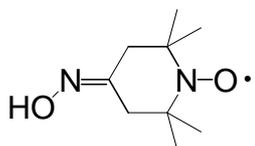
分子構造	備考	文献番号
	$2J_1 = -113\text{K}$, $J_2/J_1 = -0.4$ (1次元 Heisenbergモデル)	112
	$= -18\text{K}$	112
	弱強磁性体、 $T_N=0.41\text{K}$ 傾角= 0.32° $= 2.9\text{K}$	113,127
	$J = 8.85\text{K}$ (STモデル)	114
	$J = -0.95\text{K}$ (1次元 Heisenbergモデル)	115
	$J = -1.82\text{K}$ (STモデル)	115
	$J_1 = -14.9\text{K}$, $J_2 = -10.5\text{K}$ (1次元 Heisenbergモデル)	115
	$J = -42.3\text{K}$ (STモデル)	115
	$R = \text{H}$, $J = -158\text{K}$ $R = \text{Cl}$, $J = -4.85\text{K}$	116

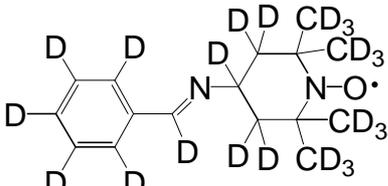
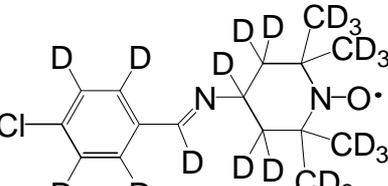
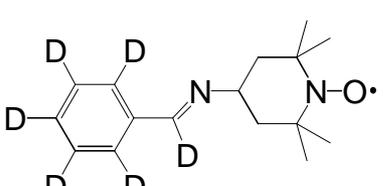
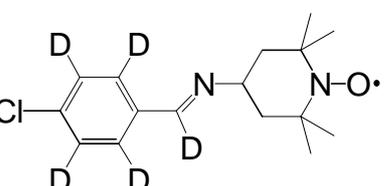
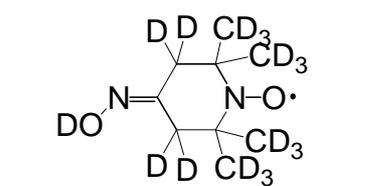
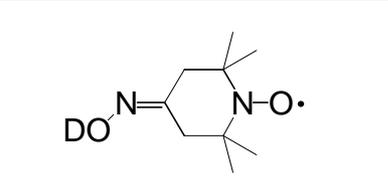
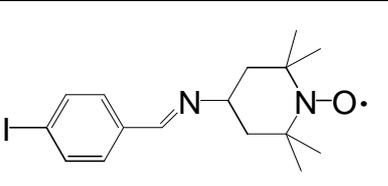
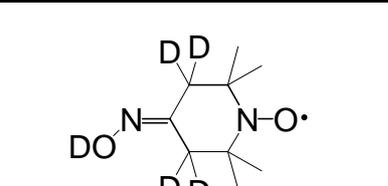
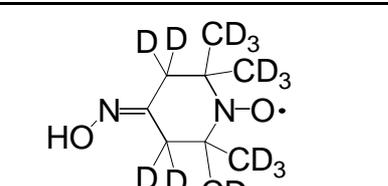
分子構造	備考	文献番号
	<p>R = H, J = -239K R = Cl, J = -3.83K</p>	116
	<p>J₁= -38K (ダイマー内) ZJ₂= -17K (ダイマー間)</p>	117
	<p>J= 0.71K (STモデル)</p>	118
	<p>= -0.82K</p>	118
	<p>2J= -123cm⁻¹ (STモデル)</p>	119
	<p>J= 12cm⁻¹ (1次元 Heisenbergモデル) = 8.2K</p>	119
	<p>2J = 11.4K (1次元 Heisenbergモデル)</p>	120
	<p>2J = 28.0K (1次元 Heisenbergモデル)</p>	120
	<p>2J₁ = -16.8K, J₂/J₁ = 0.55 (1次元 Heisenbergモデル)</p>	120

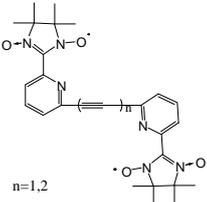
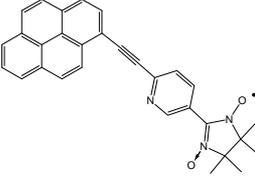
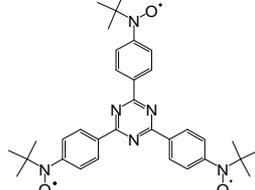
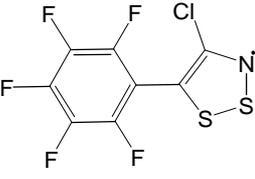
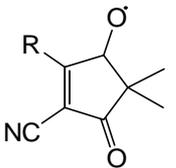
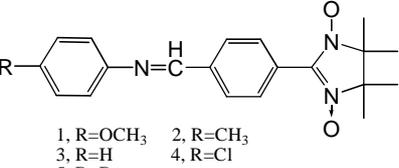
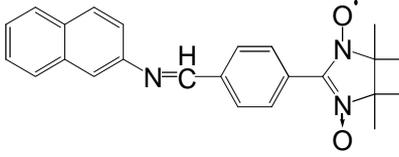
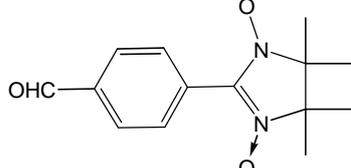
分子構造	備考	文献番号
	$2J = 3.6K$ (1次元 Heisenbergモデル)	120
	$2J_1 = -128.8K, J_2/J_1 = 0.9$ (1次元 Heisenbergモデル)	120
	ESR	121
	$J = 10.0K, \quad = -4.0K$ (STモデル)	123
	150Kで相転移 低温部では $= -34K$	124
	$2J = -27.3K$ (1次元 Heisenbergモデル)	127
	$2J = 7.0K$ (1次元 Heisenbergモデル)	127
	$2J = -27.3K$ (1次元 Heisenbergモデル)	127
	$2J = 5.0K$ (1次元 Heisenbergモデル)	127

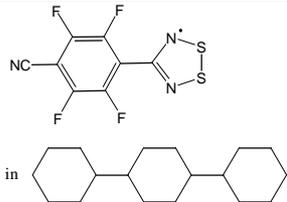
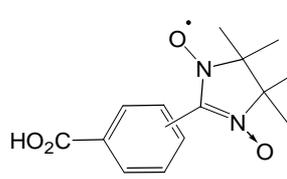
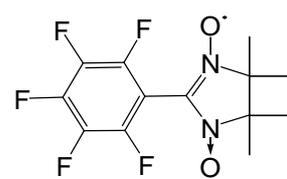
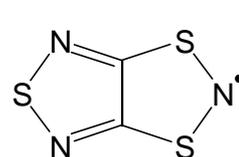
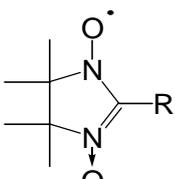
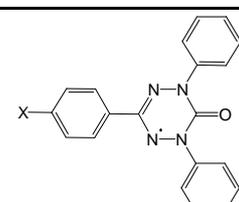
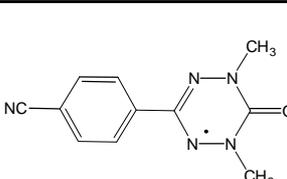
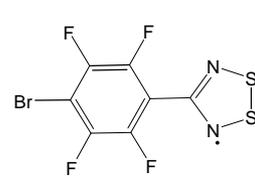
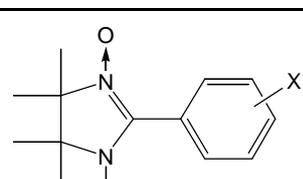
分子構造	備考	文献番号
	$2J = -10.9\text{K}$ (1次元 Heisenbergモデル)	127
	$2J_1 = -92.0\text{K}, J_2/J_1 = 0.7$ (1次元 Heisenbergモデル)	127
	$= -0.9\text{K}$	127
	$2J = 8.36 \pm 0.26\text{K}$ $= -0.39 \pm 0.01\text{K}$ (STモデル)	130
	μSR	131
	$= 0.48\text{K}$	132
	$= -1.50\text{K}$	132
	$= -0.91\text{K}$	132
	強磁性体 $T_c = 0.48\text{K}$ $= 0.66\text{K}$	132

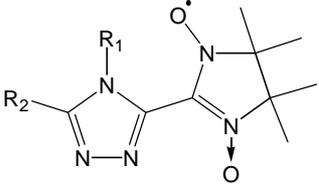
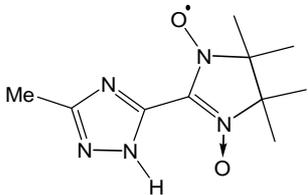
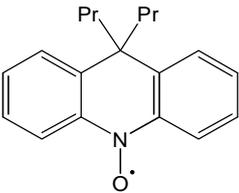
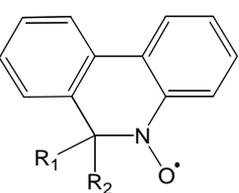
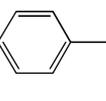
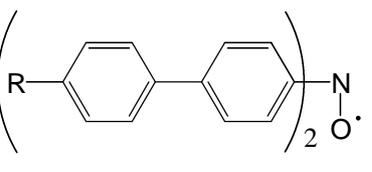
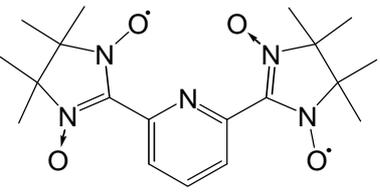
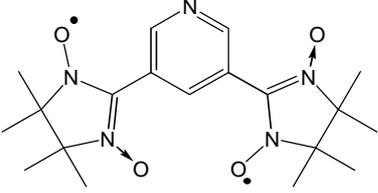
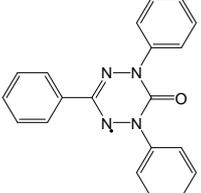
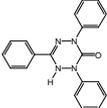
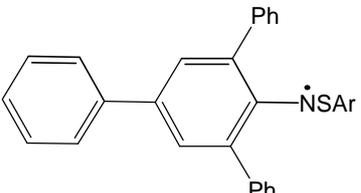
分子構造	備考	文献番号
	0.0K	132
	2J=-469K	133
	2J=-90K, = -32K	133
	$J_{12}=J_{23} = 231 \pm 4K$ $H= -2(J_{12}S_1S_2+J_{23}S_2S_3)$	134
	$J_{12} = 349 \pm 26K$ $J_{23} = 130 \pm 3K$ $H= -2(J_{12}S_1S_2+J_{23}S_2S_3)$	134
	$J_{12}=J_{23} = 127 \pm 3K$ $H= -2(J_{12}S_1S_2+J_{23}S_2S_3)$	134
	$2J = -63.4K$ (1次元 Heisenbergモデル)	135
	$2J = -12.8K, J'/J = 0.91$ (1次元 Heisenbergモデル)	135
	$2J = -17.8K$ (1次元 Heisenbergモデル)	135

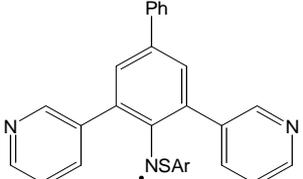
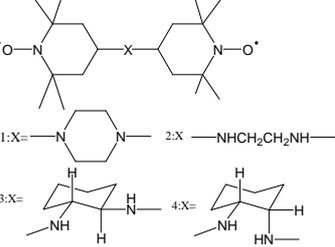
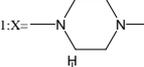
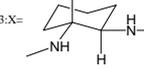
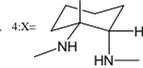
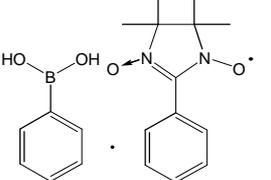
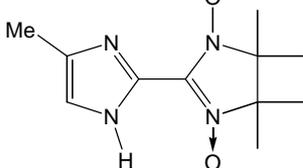
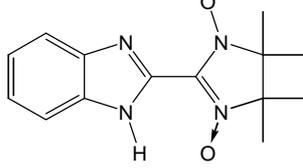
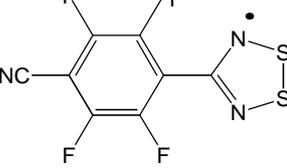
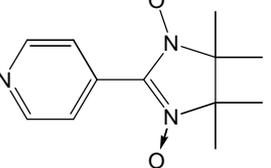
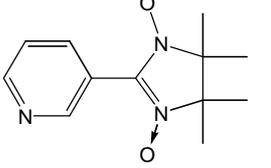
分子構造	備考	文献番号
	<p>$2J = 22.4K$ (1次元 Heisenbergモデル)</p>	135
	<p>強磁性体 $T_c=0.18K$ NMR(水素上のスピン密度)</p>	136, 138, 145
	<p>強磁性体 $T_c=0.4K$ NMR(水素上のスピン密度)</p>	137, 138, 145
	<p>強磁性体 $T_c=0.4K$ μ SR, NMR</p>	138, 139, 142
	<p>強磁性体 $T_c=0.2K$ NMR(水素上のスピン密度)</p>	138, 145
	<p>メタ磁性体 $J_1=0.2K$ $J_2=-0.02K$ $H_c=180 Oe(40mK)$</p>	140
	<p>強磁性体 $T_c=0.3K$ NMR(水素上のスピン密度)</p>	141, 145
	<p>強磁性体 $T_c=0.18K$</p>	141
	<p>強磁性体 $T_c=0.25K$ NMR(水素上のスピン密度)</p>	141, 147

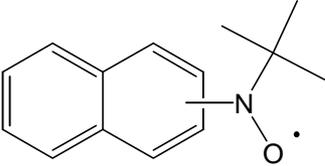
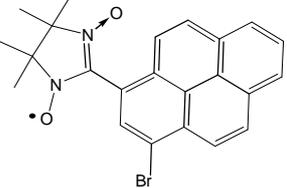
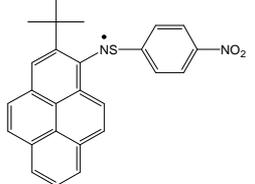
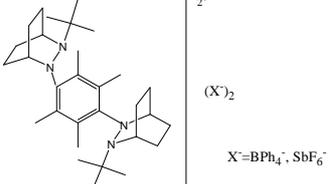
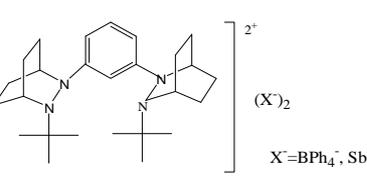
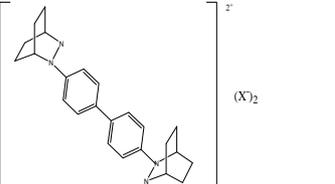
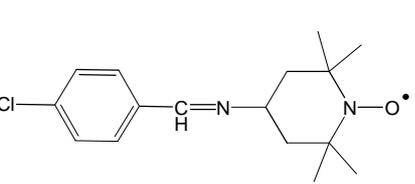
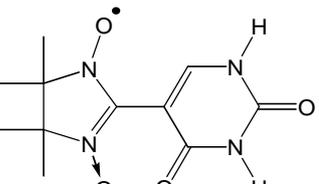
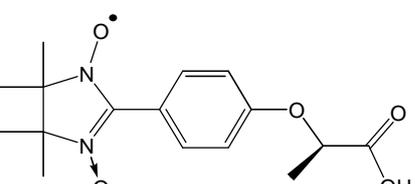
分子構造	備考	文献番号
	<p>磁性に同位体効果なし</p>	<p>143, 144</p>
	<p>磁性に同位体効果なし</p>	<p>143, 144</p>
	<p>磁性に同位体効果なし</p>	<p>143, 144</p>
	<p>磁性に同位体効果なし</p>	<p>143, 144</p>
	<p>磁性に同位体効果なし (水素上のスピン密度)</p>	<p>143, 144, 147</p>
	<p>磁性に同位体効果なし (水素上のスピン密度)</p>	<p>143, 144, 147</p>
	<p>強磁性体相 Tc=0.28K 反強磁性体相 =-0.23K</p>	<p>146</p>
	<p>NMR(水素上のスピン密度)</p>	<p>147</p>
	<p>NMR(水素上のスピン密度)</p>	<p>147</p>

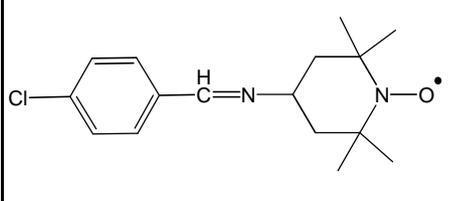
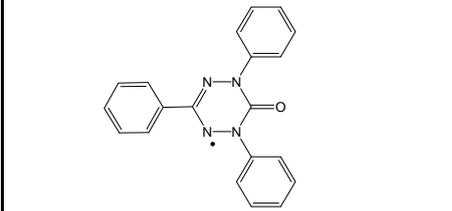
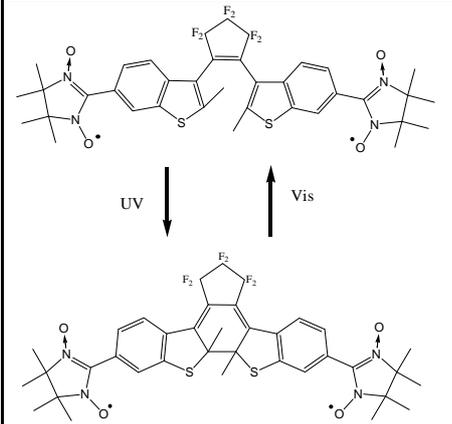
分子構造	備考	文献番号
<p>TEMPO誘導体の磁気的相互作用、結晶構造等</p>		148 ~ 154
 <p>n=1,2</p>	<p>n=1 $2J = -10K$ $= -3K$</p>	156
	<p>$= -0.8K$</p>	156
	<p>二等辺三角形モデル $J_1 = 15.3 \pm 0.8K$ $J_2 / J_1 = 0.77 \pm 0.1$ $= -5.40 \pm 0.01K$</p>	157
	<p>結晶構造 ESR</p>	158
 <p>1, R=ph 2, R=m-pyridyl</p>	<p>1, $J = -101K$ 2, $J = -55K$</p>	159
 <p>1, R=OCH₃ 2, R=CH₃ 3, R=H 4, R=Cl 5, R=Br</p>	<p>1, $= -1.9K$ 2, $= 1.9K$ 3, $= 0.9K$ 4, $= -1.6K$ 5, $= 0.7K$</p>	160
	<p>$= -0.8K$</p>	160
	<p>$= -6.9K$</p>	160

分子構造	備考	文献番号
	<p>host-guest Complex 常磁性</p>	161
	<p>オルト体, =-0.8K メタ体, =5.24K パラ体, =1.38K</p>	162
	<p>磁性の圧力効果 常圧: $J_1 = -3.1K$, $J_2/J_1 = 0.4$ 6.5kbar: $J_1 = -4.5K$, $J_2/J_1 = 1$</p>	163
	<p>室温での磁気双安定性 高温相: 常磁性 低温相: 反磁性 $T_c = 230K$ $T_c = 305K$</p>	164
	<p>強磁性的相互作用 23種 反強磁性的相互作用 24種 構造と磁性の相関</p>	165
	<p>$(X=Br)_x$, $(X=Cl)_{1-x}$ alloyの磁性</p>	166
	<p>$(X=O)_{1-x}$, $(X=S)_x$ alloyの磁性</p>	167
	<p>=-27K ($T > 60K$)</p>	168
 <p>1, o-H 2, m-OH 3, p-OH 4, p-OCH₃ 5, p-CH₃</p>	<p>固体 ¹H, ²H, ¹³C, NMRによるスピ ン密度の決定</p>	169

分子構造	備考	文献番号
	$R_1=R_2=Me: T_N=0.33K$ metamagnet $H_c=700Oe$	170
	$J=14.8Kcm^{-1}$	170
	$=0.77K$	171
	$R_1, R_2= Et$  $2J/K_B=+3.5K$	171
	$R=H: =0.91K$ $R=Et: =1.5K$ $R=n-pr: =1.6K$ $R=n-Bu: =1.3K$ $R=n-C_5H_{11}: =1.7K$ $R=n-C_7H_{15}: =2.0K$	171
	$H=-2J_1(S_{A1} \cdot S_{A2}+S_{B1} \cdot S_{B2})$ $-2J_2S_{A1} \cdot S_{B2}$ $J_1=8.0K, J_2=-52.0K$	172
	$=-6.0K$	172
	 を3%ドーピングすると 反強磁性的相互作用 強磁性的相互作用	173
	$Ar=4-NO_2C_6H_4$ 一次元AF鎖 $2J=-63.4K$ $Ar=2,4-Cl_2C_6H_3$ 一次元AF鎖 $2J=-12.8K \quad =0.91$	174

分子構造	備考	文献番号
	<p>Ar=4-NO₂C₆H₄ 一次元AF鎖 2J=-17.8K Ar=2,4-Cl₂C₆H₃ 一次元F鎖 2J=22.4K</p>	174
 <p>1: X=  2: X= NHCH₂CH₂NH— 3: X=  4: X= </p>	<p>1: =0.18K 2: =-0.30K 3: =-1.33K 4: =-2.27K</p>	175
	<p>中性子回折 スピン密度</p>	176
	<p>=6.2K</p>	177
	<p>=8.2K</p>	177
	<p>T_c=36Kで弱強磁性体へ転移</p>	178
	<p>Magic angle 1H-NMR スピン密度の決定</p>	179
		179

分子構造	備考	文献番号
		180
	りん光スペクトル S=3/2 S=1/2	180
		180
 <p>(X)₂ X⁻=BPh₄⁻, SbF₆⁻</p>	J _{intra} = -106K J _{inter} = -49K =0.46K	181
 <p>(X)₂ X⁻=BPh₄⁻, SbF₆⁻</p>	S=1 J _{intra} > 190K	181
 <p>(X)₂ X⁻=BPh₄⁻, SbF₆⁻</p>	J _{intra} = -106K J _{inter} = -42K =0.40	181
	T _c の圧力依存性 P > 7.9kbarで 強磁性 反強磁性転移	182
	水溶液中のESR 反強磁性体転移 T _N =5K	183
	R体 一次元反強磁性Heisenbergモデル J = -2.0K	184

分子構造	備考	文献番号
	<p>偏極中性子回折 スピン密度</p>	<p>185</p>
	<p>弱強磁性体転移 温度に対する圧力効果 $T_c(P) = T_c(P_0)(1 + 0.086P)$ $0 < P < 10.9\text{kbar}$</p>	<p>186</p>
	<p>磁氣的相互作用の光スイッチング</p>	<p>187</p>