Computational details:

The magnetic exchange interaction between the Gd(III) centers in the non-radical bridged complex has been evaluated using the following Hamiltonian relation,

$$\hat{H} = -2\mathrm{J}\,\hat{S}_{Gd}\,\hat{S}_{Gd}$$

J represents the Isotropic exchange coupling constant and S_1, S_2 are the spins of Gd (III) centers. *J* values are computed from the energy differences between the high spin (E_{HS}) state, which is calculated using single determinant wave functions and low spin (E_{BS}) state, determined using Broken Symmetry (BS) approach developed by Noodleman.[1, 2] The BS approach was proved to be handy in evaluating the J values to a good estimate in variety of complexes. All the calculations are performed using hybrid B3LYP[3] functional with a combination of CSDZ ECP on Gd[4] and TZV[5] triple- ζ basis set on other atoms as implemented in the Gaussian 09 suite of programs.[6] In the case of radical bridged dinuclear Gd(III) complex, the magnetic interaction between the metal-radical and Gd(III)…Gd(III) interaction has to be taken into account. Four different configurations (all spins up, spin of down on N_2, spin down on Gd_A, spin down on Gd_B) have been computed to obtain the values of J_1 and J_2.[2]

Table S1: DFT computed energies of high spin (HS) and broken symmetry (BS) state, $<S^2>$ values for different radical systems.

	HS	BS1	BS2	BS3	$<S^2>$			
1	-4291.32197	-4291.32370	-4291.3229	-4291.3229	63.7782	49.7794	7.781	7.781
2	-4291.33551	-4291.33558	-	-	56.0281	7.0295	-	-
[Gd(Hbpz$_3$)$_2$(dtbsq)](3)	-2211.03014	-2211.03036	-	-	21.0189	14.0180	-	-
[Gd(NITBzImH)$_2$(NO$_3$)$_3$](4)	-1999.09573	-1998.92771	-	-	20.0690	13.0578	-	-
[Gd(hfac)(IM2py)](5)	-3640.35909	-3640.35918	-	-	20.0284	13.0288	-	-
[Gd(NITBzImH)$_4$](ClO$_4$)$_3$(6)	-1423.30279	-1423.30284	-	-	20.0393	13.0393	-	-

Table S2: DFT computed spin densities of selected atoms of complexes **1** and **2**.

Complex (1)					**Complex (2)**	
Atom specification	Spin densities				Spin densities	
	HS	BS1	BS2	BS3	HS	BS
Gd1	7.0119	7.0727	7.0337	-7.0948	7.0425	7.0571
Gd2	7.0152	7.0751	-7.0966	7.0364	7.0425	-7.0571
O7	0.0005	-0.0001	0.0003	0.0002	-0.0001	-0.0003

N8	-0.0088	-0.0038	-0.0087	0.0037	-0.0095	-0.0095
N9	-0.0059	-0.0068	-0.0058	0.0067	-0.0104	-0.0104
N10	0.4733	-0.5366	0.5021	0.5082	-0.0208	-0.0011
N71	0.4831	-0.5478	0.5208	0.5104	-0.0208	0.0011
O76	0.0005	0.00003	0.0001	0.0003	-0.0001	0.0003
N77	-0.0085	-0.0038	0.0037	-0.0083	-0.0095	0.0095
N78	-0.0062	-0.0071	0.0070	-0.0062	-0.0104	0.0104

Table S3: DFT computed spin densities of selected atoms of complexes **3**, **4**, **5** and **6**.

Complex 3			Complex 4			Complex 5			Complex 6		
Atom specification	Spin densities		Atom specification	Spin densities		Atom specification	Spin densities		Atom specification	Spin densities	
	HS	BS		HS	BS		HS	BS		HS	BS
Gd1	7.0487	7.0537	Gd1	7.0358	7.0364	Gd1	7.0220	7.0318	Gd1	7.0337	7.0269
O2	0.2204	-0.2265	O2	0.0000	-0.0002	O21	-0.0013	-0.0032	O2	0.1364	-0.1460
O3	0.1954	-0.2031	N4	-0.0048	-0.0044	O22	-0.0019	-0.0019	O3	0.4759	-0.4756
N5	0.0056	0.0057	O7	0.2824	-0.2858	O23	-0.0019	-0.0024	N4	0.2964	-0.3015
N13	-0.0295	-0.0296	O8	0.3949	-0.3941	O24	-0.0023	-0.0024	N5	0.2267	-0.2266
N20	-0.0224	-0.0272	N9	0.2983	-0.3006	O25	-0.0005	-0.0026	N6	-0.0185	0.0069
N36	0.0021	0.0012	N10	0.2983	-0.2978	O26	-0.0010	-0.0022	O39	-0.0007	-0.0008
N44	0.0127	0.0102	N11	-0.0564	0.0472	N27	0.3251	-0.3321	N41	-0.0052	-0.0056
			O45	-0.0027	-0.0041	N28	0.3163	-0.3171	O44	-0.0006	-0.0004
			O46	-0.0051	-0.0050				N46	-0.0048	-0.0049
			O49	-0.0053	-0.0057				O49	-0.0004	-0.0005
			O50	-0.0039	-0.0037				N51	-0.0062	-0.0057
			O53	-0.0055	-0.0076						
			O54	-0.0057	-0.0066						

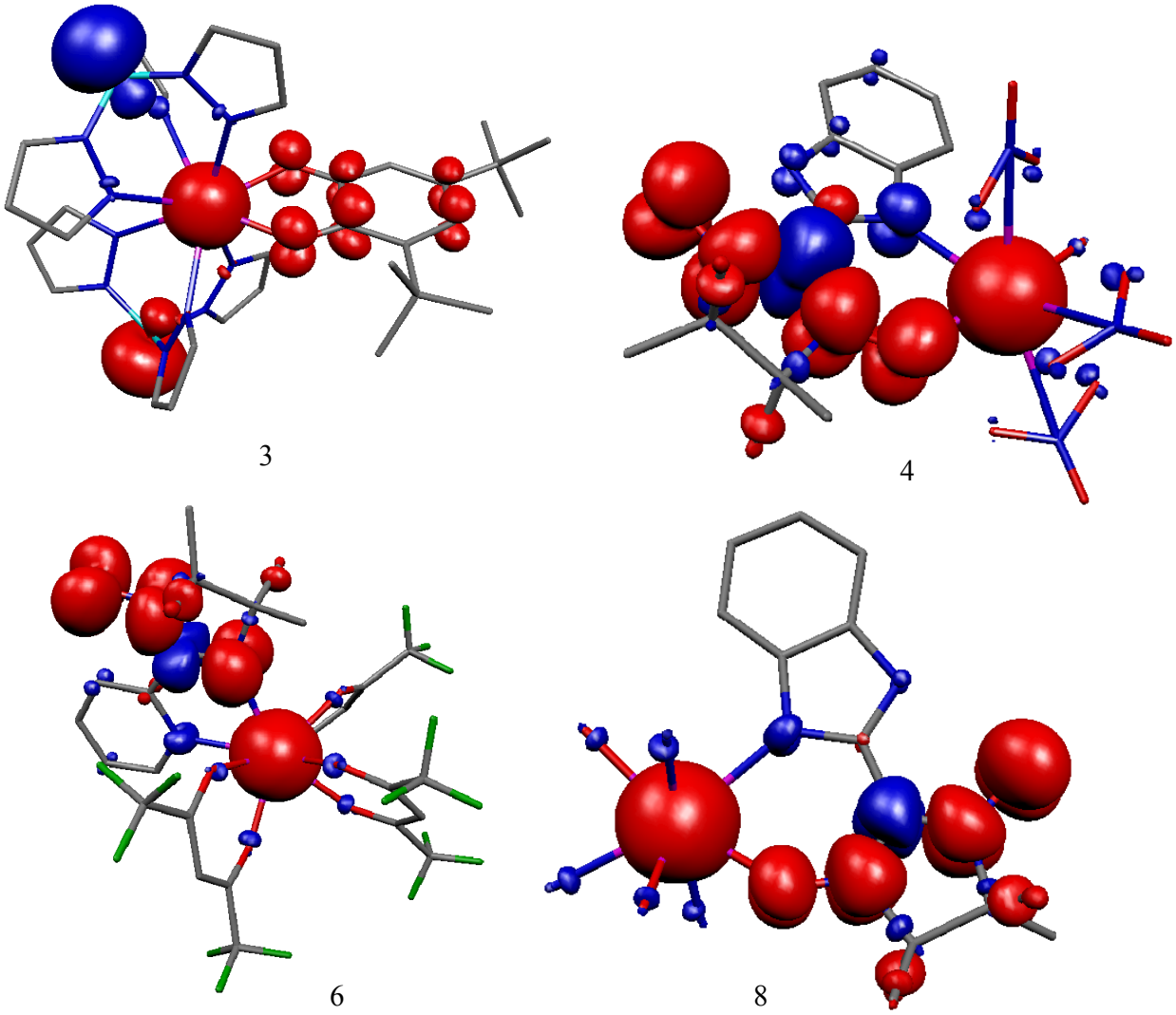

Figure S1: Computed spin density plot for complexes **3**, **4**, **5** and **6**.

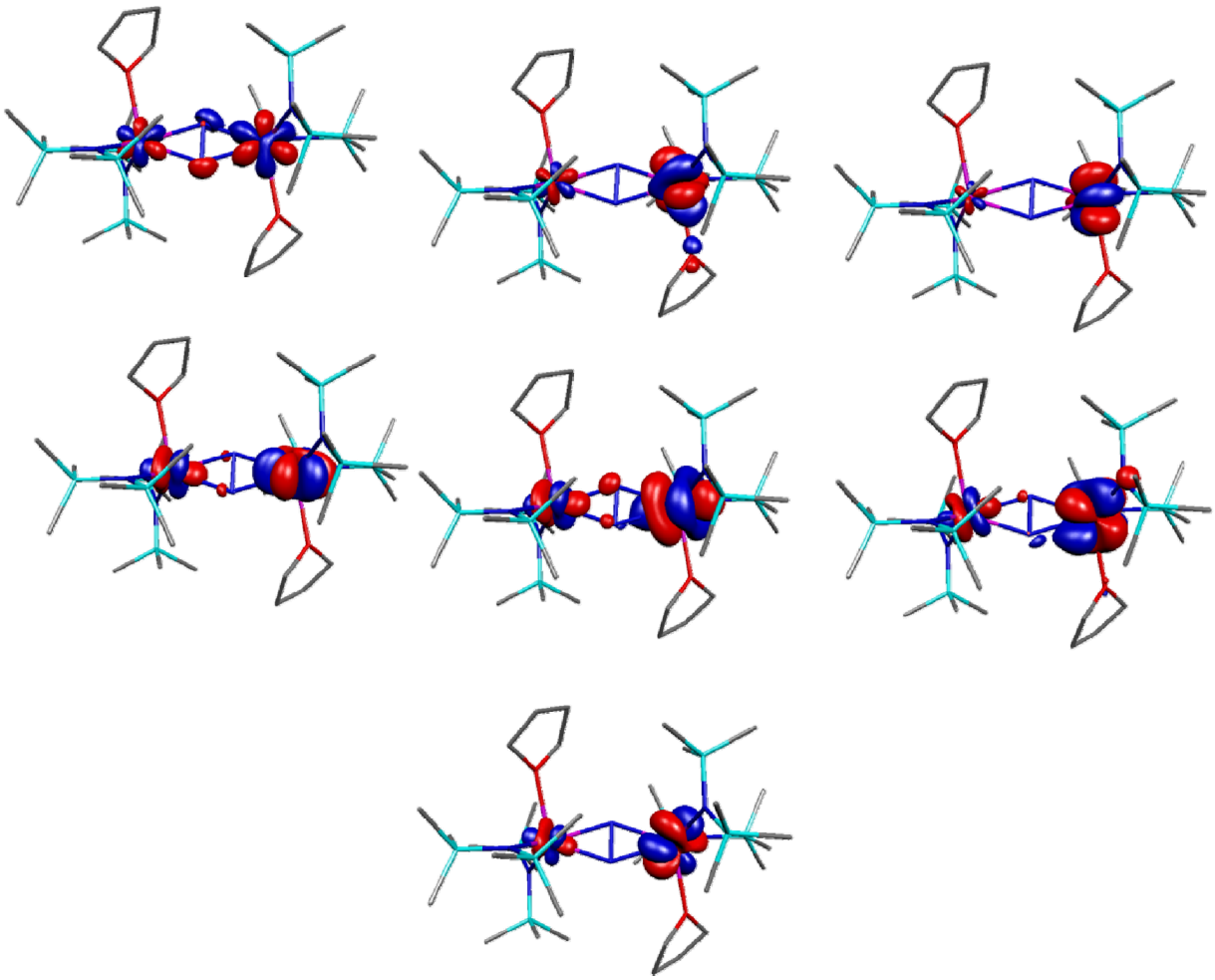

Figure S2: Computed magnetic orbitals of the Gd(III) in Complex **1**.

Mechanism- Overlap between 4f-orbitals of two Gd(III) ions and πp_y^* of N_2^{3-}

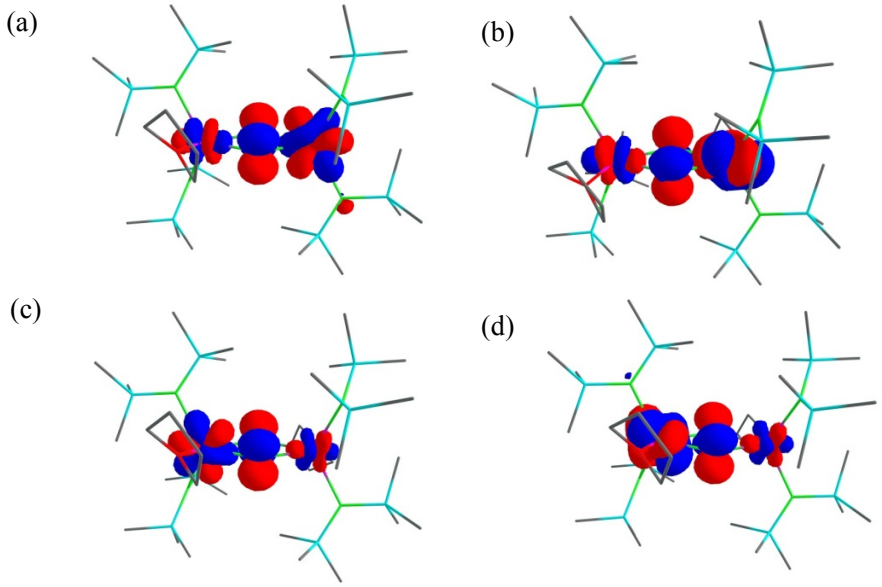

Figure S3. Form overlap integral values (Table S6 and S7), we infer that three 4f orbitals [(a) $f_{x(x2-3y2)}$, (b and c) $f_{y(y2-3x2)}$, (d) $f_{z(x2-y2)}$] overlap with πp_y^* orbital of N_2^{3-} plays a prominent in deciding the interaction as antiferromagnetic and this can be evidenced from the superimposed figure shown above. The overlap of $f_{y(y2-3x2)}$ with πp_y^* orbital is found to be prominent in both Gd(III) ions whereas the $f_{x(x2-3y2)}$ overlap is found to be prominent in Gd_1 and $f_{z(x2-y2)}$ in the case of Gd_2.

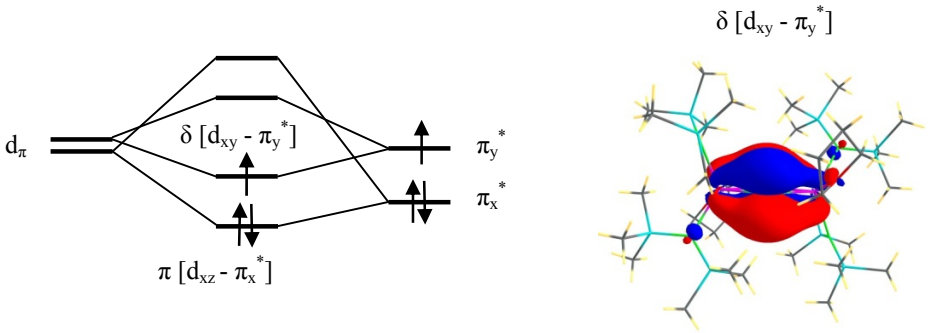

Figure S3: Qualitative Molecular diagram for complex **1**.

Table S4: Exchange coupling values for certain {3d-4f} complexes.

Complexes	J (cm^{-1})	Ref
$[Cu^{II}Gd^{III}\{pyCO(OEt)pyC(OH)(OEt)py\}_3](ClO_4)_2 \cdot EtOH$	-0.32	7
$[Mn^{II}Gd^{III}\{pyCO(OEt)pyC(OH)(OEt)py\}_3](ClO_4)_2 \cdot EtOH$	-1.7	7
$[Ni^{II}Gd^{III}\{pyCO(OEt)pyC(OH)(OEt)py\}_3](ClO_4)_2 \cdot EtOH$	-0.22	7
$[LCo(MeOH)Gd(NO_3)_3]$	0.45	8
$L^1Fe(CH_3OH)Gd(NO_3)_3(CH_3OH)_2$	0.50	9
$L^1Fe((CH_3)_2CO)Gd(NO_3)_3$	0.41	9
$L^2Fe((CH_3)_2CO)Gd(NO_3)_3$	0.08	9
$[Gd_2Ni_2(pro)_4(NO_3)_6(CH_3CN)_4]$	0.15	10
$[LVOGd(hfa)_2(CH3OH)]_2$	0.46	11
$[L^2V(O)\{(CH_3)_2CO\}Gd(NO_3)_3]$	-2.6	12

Magneto-structural correlations (Dihedral Correlation)

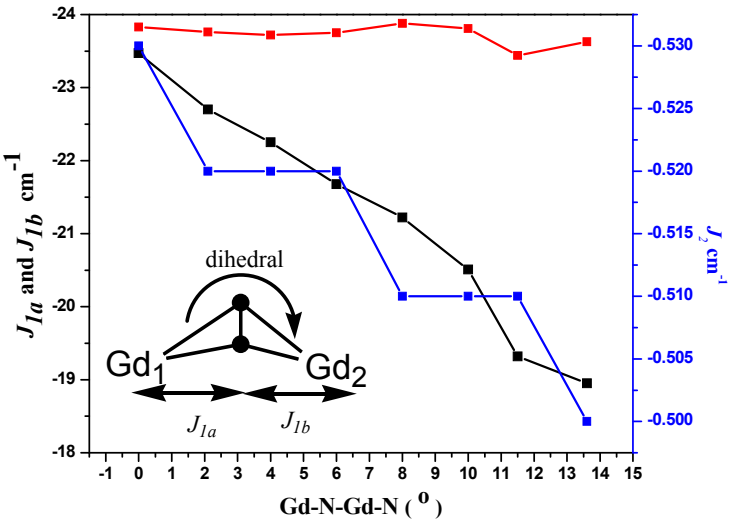

Figure S4. Magneto-structural correlation developed by varying the Gd-N-Gd-N dihedral angle.

The magnetic coupling between Gd_1 and N_2^{3-} has been taken as J_{1a} and J_{1b} in the case of Gd_2. The developed correlation by varying the dihedral angle (Gd-N-Gd-N) is shown in the above figure, in which J_{1a} is denoted in red lines and J_{1b} in black lines whereas J_2 (interaction between 2 Gd(III) atoms) is denoted by blue lines. Here the dihedral is varied by moving the Gd_2 atom out of the Gd_2N_2 plane without affecting the position of Gd_1. Upon varying the dihedral, J_{1a} remains unaffected whereas J_{1b} and J_2 vary constantly. This variation routes from the large difference between the overlap between the 4f-orbitals and πp_y^* (Table S7 and S9).

Table S5: Spin densities and NPA charges of different atoms in complex **1**.

Distance (N-N)	N1	N2
1.440	0.488	0.498
1.420	0.480	0.490
1.400	0.473	0.483
1.380	0.466	0.474
1.360	0.456	0.465
1.340	0.446	0.455
1.320	0.434	0.443

1.300	0.421	0.431
1.278	0.409	0.417
1.260	0.395	0.402
1.240	0.378	0.385

Distance (N-N)	Gd1	Gd2	N1	N2
1.400 (**1**)	1.743	1.700	-0.813	-0.793
1.380	1.734	1.689	-0.806	-0.788
1.320	1.693	1.640	-0.777	-0.759
1.278	1.665	1.600	-0.748	-0.731
1.240	1.636	1.570	-0.717	-0.701

Table S6: Overlap integral (S_{ab}) values for distance correlation in Complex **1** corresponding to coupling constant J_1 (J_{1a} and J_{1b}).

1.4	f_{xz^2}	πp_y*	-0.01664	**1.36**	f_{xz^2}	πp_y*	0.02371	**1.32**	f_{xz^2}	πp_y*	0.00315	**1.278**	f_{xz^2}	πp_y*	0.02413
Gd1	f_{yz^2}		-0.01925		$f_{x(x^2-3y^2)}$		0.04579		$f_{x(x^2-3y^2)}$		-0.03830		f_{xyz}		-0.02868
	f_{z^3}		0.01346		f_{z^3}		0.01180		f_{z^3}		0.01175		f_{z^3}		-0.00531
	$f_{z(x^2-y^2)}$		0.01493		f_{yz^2}		0.00970		f_{yz^2}		0.00575		f_{yz^2}		0.00249
	f_{xyz}		0.00613		$f_{y(y^2-3x^2)}$		0.04274		$f_{y(y^2-3x^2)}$		0.04773		$f_{x(x^2-3y^2)}$		0.03399
	$f_{x(x^2-3y^2)}$		0.05232		f_{xyz}		0.00481		f_{xyz}		0.00722		$f_{y(y^2-3x^2)}$		-0.03548
	$f_{y(y^2-3x^2)}$		0.03692		$f_{z(x^2-y^2)}$		0.01575		$f_{z(x^2-y^2)}$		0.01425		$f_{z(x^2-y^2)}$		0.02320
Gd2	f_{xz^2}	πp_y*	0.00995		f_{xz^2}	πp_y*	-0.01451		f_{xz^2}	πp_y*	-0.01362		f_{xz^2}	πp_y*	-0.00673
	f_{yz^2}		0.01836		f_{xyz}		0.01119		f_{xyz}		-0.00591		f_{xyz}		-0.00041
	f_{z^3}		-0.00817		f_{z^3}		-0.01063		f_{z^3}		-0.01279		f_{z^3}		-0.00230
	$f_{z(x^2-y^2)}$		0.02466		f_{yz^2}		-0.00942		f_{yz^2}		-0.00242		f_{yz^2}		0.00127
	$f_{x(x^2-3y^2)}$		0.01603		$f_{y(y^2-3x^2)}$		-0.06184		$f_{y(y^2-3x^2)}$		-0.06682		$f_{y(y^2-3x^2)}$		-0.06964
	f_{xyz}		-0.01277		$f_{z(x^2-y^2)}$		-0.02493		$f_{z(x^2-y^2)}$		-0.02275		$f_{z(x^2-y^2)}$		0.00302
	$f_{y(y^2-3x^2)}$		-0.0634		$f_{x(x^2-3y^2)}$		0.01069		$f_{x(x^2-3y^2)}$		-0.00055		$f_{z(x^2-y^2)}$		-0.00601

Table S7: Overlap integral (S_{ab}) values for dihedral correlation in Complex **1** corresponding to coupling constant J_1 (J_{1a} and J_{1b})

0	f_{xz^2}	πp_y*	-0.01664	**4**	f_{xz^2}	πp_y*	-0.01264	**10**	f_{xz^2}	πp_y*	-0.00964	**13.6**	f_{xz^2}	πp_y*	-0.01178
Gd1	f_{yz^2}		-0.01925		f_{yz^2}		-0.0056		f_{yz^2}		0.002887		f_{yz^2}		0.022082
	f_{z^3}		0.01346		f_{z^3}		-0.01433		f_{z^3}		-0.01559		f_{z^3}		-0.01478
	$f_{z(x^2-y^2)}$		0.01493		f_{xyz}		-0.01973		f_{xyz}		-0.02076		f_{xyz}		-0.02019
	f_{xyz}		0.00613		$f_{y(y^2-3x^2)}$		0.050831		$f_{y(y^2-3x^2)}$		0.047755		$f_{y(y^2-3x^2)}$		-0.04391
	$f_{x(x^2-3y^2)}$		0.05232		$f_{x(x^2-3y^2)}$		-0.03949		$f_{x(x^2-3y^2)}$		0.044404		$f_{x(x^2-3y^2)}$		0.044373
	$f_{y(y^2-3x^2)}$		0.03692		$f_{z(x^2-y^2)}$		-0.01566		$f_{z(x^2-y^2)}$		-0.01629		$f_{z(x^2-y^2)}$		-0.01553
Gd2	f_{xz^2}	πp_y*	0.00995		f_{xz^2}	πp_y*	0.015593		f_{xz^2}	πp_y*	0.024332		f_{xz^2}	πp_y*	0.030052
	f_{yz^2}		0.01836		f_{yz^2}		0.009635		f_{yz^2}		0.006456		f_{yz^2}		-0.00057
	f_{z^3}		-0.00817		f_{z^3}		0.00628		f_{z^3}		0.005635		f_{z^3}		0.004117
	$f_{z(x^2-y^2)}$		0.02466		$f_{x(x^2-3y^2)}$		0.017923		$f_{x(x^2-3y^2)}$		0.01611		$f_{x(x^2-3y^2)}$		0.013074
	$f_{x(x^2-3y^2)}$		0.01603		$f_{y(y^2-3x^2)}$		-0.06267		$f_{y(y^2-3x^2)}$		-0.06055		$f_{y(y^2-3x^2)}$		-0.05986
	f_{xyz}		-0.01277		$f_{z(x^2-y^2)}$		-0.02729		$f_{z(x^2-y^2)}$		-0.02937		$f_{z(x^2-y^2)}$		-0.02653
	$f_{y(y^2-3x^2)}$		-0.0634		f_{xyz}		0.012418		f_{xyz}		0.002866		f_{xyz}		-0.00345

Table S8: Overlap integral (S_{ab}) values for distance correlation in complex **1** corresponding to coupling constant J_2.

1.4	f_{xz^2}	f_{xz^2}	**-0.01465**	**1.36**	f_{xz^2}	f_{xz^2}	**0.005901**	**1.32**	f_{xz^2}	f_{xz^2}	**0.00256**	**1.278**	f_{xz^2}	f_{xz^2}	**0.001416**
		f_{yz^2}	-0.000359			f_{yz^2}	0.000525			f_{yz^2}	-0.000188			f_{yz^2}	-0.00047
		f_{z^3}	0.0029013			f_{z^3}	-0.005179			f_{z^3}	-0.00339			f_{z^3}	-0.00188
		$f_{z(x^2-y^2)}$	0.0076368			$f_{z(x^2-y^2)}$	-0.00417			$f_{z(x^2-y^2)}$	-0.001098			$f_{z(x^2-y^2)}$	-0.000496
		f_{xyz}	-0.000112			f_{xyz}	0.0002087			f_{xyz}	0.0001526			f_{xyz}	6.818E-05
		$f_{y(y^2-3x^2)}$	0.0014042			$f_{y(y^2-3x^2)}$	0.0020709			$f_{y(y^2-3x^2)}$	0.0015879			$f_{y(y^2-3x^2)}$	0.0011658
		$f_{x(x^2-3y^2)}$	0.0003957			$f_{x(x^2-3y^2)}$	0.0000511			$f_{x(x^2-3y^2)}$	0.0005359			$f_{x(x^2-3y^2)}$	0.0005559
	f_{yz^2}	f_{xz^2}	0.0076368		f_{yz^2}	f_{xz^2}	-0.003104		f_{yz^2}	f_{xz^2}	-0.001476		f_{yz^2}	f_{xz^2}	-0.000714
		f_{yz^2}	-0.000724			f_{yz^2}	-0.000997			f_{yz^2}	-0.00042			f_{yz^2}	-0.000186
		f_{z^3}	-0.001588			f_{z^3}	0.0030758			f_{z^3}	0.0023283			f_{z^3}	0.0012764
		$f_{z(x^2-y^2)}$	-0.002268			$f_{z(x^2-y^2)}$	0.0024185			$f_{z(x^2-y^2)}$	0.0006721			$f_{z(x^2-y^2)}$	-0.000269
		f_{xyz}	-0.000464			f_{xyz}	0.0002817			f_{xyz}	9.294E-05			f_{xyz}	7.693E-05
		$f_{y(y^2-3x^2)}$	-0.001084			$f_{y(y^2-3x^2)}$	-0.00084			$f_{y(y^2-3x^2)}$	-0.000945			$f_{y(y^2-3x^2)}$	-0.00075
		$f_{x(x^2-3y^2)}$	0.0001319			$f_{x(x^2-3y^2)}$	-5.95E-05			$f_{x(x^2-3y^2)}$	-0.000378			$f_{x(x^2-3y^2)}$	-0.000398
	f_{z^3}	f_{xz^2}	0.0029013		f_{z^3}	f_{xz^2}	-0.002654		f_{z^3}	f_{xz^2}	-0.002559		f_{z^3}	f_{xz^2}	-0.002057
		f_{yz^2}	0.0009341			f_{yz^2}	-0.000828			f_{yz^2}	-0.000569			f_{yz^2}	-3.58E-05
		f_{z^3}	0.0007919			f_{z^3}	0.0022352			f_{z^3}	0.0034652			f_{z^3}	0.002802
		$f_{z(x^2-y^2)}$	-0.001588			$f_{z(x^2-y^2)}$	0.0020252			$f_{z(x^2-y^2)}$	0.0012885			$f_{z(x^2-y^2)}$	0.0009067
		f_{xyz}	0.0005178			f_{xyz}	0.0003188			f_{xyz}	0.000138			f_{xyz}	2.769E-05
		$f_{y(y^2-3x^2)}$	-0.0005932			$f_{y(y^2-3x^2)}$	-0.000412			$f_{y(y^2-3x^2)}$	-0.001208			$f_{y(y^2-3x^2)}$	-0.001506
		$f_{x(x^2-3y^2)}$	0.0001651			$f_{x(x^2-3y^2)}$	0.0000319			$f_{x(x^2-3y^2)}$	-0.000444			$f_{x(x^2-3y^2)}$	-0.00068

$f_{z(x^2-y^2)}$	f_{xz^2}	0.0003957	$f_{z(x^2-y^2)}$	f_{xz^2}	-0.000295	$f_{z(x^2-y^2)}$	f_{xz^2}	-5.86E-05	$f_{y(y^2-3x^2)}$	f_{xz^2}	7.014E-05
	f_{yz^2}	0.0001282		f_{yz^2}	0.0001167		f_{yz^2}	0.0003092		f_{yz^2}	0.000512
	f_{z^3}	0.0001651		f_{z^3}	-0.000146		f_{z^3}	-0.00027		f_{z^3}	-0.000344
	$f_{z(x^2-y^2)}$	0.0001319		$f_{z(x^2-y^2)}$	-0.000085		$f_{z(x^2-y^2)}$	-0.000127		$f_{z(x^2-y^2)}$	-0.000218
	f_{xyz}	-0.000889		f_{xyz}	-0.000779		f_{xyz}	-0.000534		f_{xyz}	-0.00034
	$f_{y(y^2-3x^2)}$	0.0003516		$f_{y(y^2-3x^2)}$	-0.000864		$f_{y(y^2-3x^2)}$	-0.000788		$f_{y(y^2-3x^2)}$	-0.000547
	$f_{x(x^2-3y^2)}$	0.0013567		$f_{x(x^2-3y^2)}$	0.0011173		$f_{x(x^2-3y^2)}$	0.0008628		$f_{x(x^2-3y^2)}$	0.0008658
$f_{x(x^2-3y^2)}$	f_{xz^2}	-0.000359	$f_{x(x^2-3y^2)}$	f_{xz^2}	-0.000512	$f_{x(x^2-3y^2)}$	f_{xz^2}	-0.000522	$f_{x(x^2-3y^2)}$	f_{xz^2}	-0.000468
	f_{yz^2}	0.0012951		f_{yz^2}	0.0024302		f_{yz^2}	0.0027463		f_{yz^2}	0.0029845
	f_{z^3}	0.0009341		f_{z^3}	-0.000917		f_{z^3}	-0.000682		f_{z^3}	-0.00056
	$f_{z(x^2-y^2)}$	-0.000724		$f_{z(x^2-y^2)}$	-0.000333		$f_{z(x^2-y^2)}$	-6.04E-05		$f_{z(x^2-y^2)}$	-0.000203
	f_{xyz}	0.0001596		f_{xyz}	-0.001513		f_{xyz}	-0.00129		f_{xyz}	-0.000984
	$f_{y(y^2-3x^2)}$	-0.001558		$f_{y(y^2-3x^2)}$	-0.000346		$f_{y(y^2-3x^2)}$	-0.000276		$f_{y(y^2-3x^2)}$	5.044E-05
	$f_{x(x^2-3y^2)}$	0.0001282		$f_{x(x^2-3y^2)}$	0.0000017		$f_{x(x^2-3y^2)}$	9.336E-05		$f_{x(x^2-3y^2)}$	0.0001434
f_{xyz}	f_{xz^2}	0.0014042	f_{xyz}	f_{xz^2}	0.0009255	f_{xyz}	f_{xz^2}	0.0007726	f_{xyz}	f_{xz^2}	0.0006775
	f_{yz^2}	-0.001558		f_{yz^2}	0.0012591		f_{yz^2}	0.001057		f_{yz^2}	0.0007042
	f_{z^3}	-0.0005932		f_{z^3}	-0.00099		f_{z^3}	-0.001207		f_{z^3}	-0.000993
	$f_{z(x^2-y^2)}$	-0.001084		$f_{z(x^2-y^2)}$	-0.000938		$f_{z(x^2-y^2)}$	-0.000556		$f_{z(x^2-y^2)}$	-0.00046
	f_{xyz}	0.0008753		f_{xyz}	-0.00056		f_{xyz}	-0.000307		f_{xyz}	-0.000117
	$f_{y(y^2-3x^2)}$	-0.001211		$f_{y(y^2-3x^2)}$	-0.000156		$f_{y(y^2-3x^2)}$	0.0002236		$f_{y(y^2-3x^2)}$	0.0004589
	$f_{x(x^2-3y^2)}$	0.0003516		$f_{x(x^2-3y^2)}$	-0.000164		$f_{x(x^2-3y^2)}$	-5.61E-05		$f_{x(x^2-3y^2)}$	5.012E-05
$f_{y(y^2-3x^2)}$	f_{xz^2}	-0.000112	$f_{y(y^2-3x^2)}$	f_{xz^2}	0.0007226	$f_{y(y^2-3x^2)}$	f_{xz^2}	0.0005271	$f_{z(x^2-y^2)}$	f_{xz^2}	0.0004642

f_{yz^2}	0.0001596	f_{yz^2}	-0.001038	f_{yz^2}	-0.00097	f_{yz^2}	-0.000865
f_{z^3}	0.0005178	f_{z^3}	0.0003537	f_{z^3}	1.964E-05	f_{z^3}	-0.000156
$f_{z(x^2-y^2)}$	-0.000464	$f_{z(x^2-y^2)}$	-9.62E-05	$f_{z(x^2-y^2)}$	-0.000161	$f_{z(x^2-y^2)}$	-0.000107
f_{xyz}	0.0011235	f_{xyz}	0.0007971	f_{xyz}	0.0004723	f_{xyz}	0.0002081
$f_{y(y^2-3x^2)}$	0.0008753	$f_{y(y^2-3x^2)}$	0.0007173	$f_{y(y^2-3x^2)}$	0.0006543	$f_{y(y^2-3x^2)}$	0.0004825
$f_{x(x^2-3y^2)}$	-0.000889	$f_{x(x^2-3y^2)}$	-0.000753	$f_{x(x^2-3y^2)}$	-0.000551	$f_{x(x^2-3y^2)}$	-0.000428

Table S9: Overlap integral (S_{ab}) values for dihedral correlation in Complex **1** corresponding to coupling constant J_2.

0	f_{xz^2}	f_{xz^2}	**-0.01465**	**4**	f_{xz^2}	f_{xz^2}	**-0.01401**	**10**	f_{xz^2}	f_{xz^2}	**-0.01301**	**13.6**	f_{xz^2}	f_{xz^2}	**-0.01043**
		f_{yz^2}	-0.000359			f_{yz^2}	0.002171			f_{yz^2}	-0.00102			$f_{x(x^2-3y^2)}$	-0.00177
		f_{z^3}	0.0029013			f_{z^3}	0.006629			f_{z^3}	0.00912			f_{z^3}	0.01154
		$f_{z(x^2-y^2)}$	0.0076368			$f_{z(x^2-y^2)}$	0.007243			$f_{z(x^2-y^2)}$	0.006789			f_{yz^2}	0.005636
		f_{xyz}	-0.000112			f_{xyz}	-0.00045			f_{xyz}	-0.0011			$f_{y(y^2-3x^2)}$	-0.00154
		$f_{y(y^2-3x^2)}$	0.0014042			$f_{y(y^2-3x^2)}$	-0.00138			$f_{y(y^2-3x^2)}$	0.002411			$f_{z(x^2-y^2)}$	0.00237
		$f_{x(x^2-3y^2)}$	0.0003957			$f_{x(x^2-3y^2)}$	0.00062			$f_{x(x^2-3y^2)}$	0.001479			f_{xyz}	0.001379
	f_{yz^2}	f_{xz^2}	0.0076368		f_{yz^2}	f_{xz^2}	-0.00364		f_{yz^2}	f_{xz^2}	-0.00333		f_{yz^2}	f_{xz^2}	-0.00327
		f_{yz^2}	-0.000724			f_{yz^2}	0.000809			f_{yz^2}	0.000588			$f_{x(x^2-3y^2)}$	0.000414
		f_{z^3}	-0.001588			f_{z^3}	0.002006			f_{z^3}	0.002696			f_{z^3}	0.004029
		$f_{z(x^2-y^2)}$	-0.002268			$f_{z(x^2-y^2)}$	0.002119			$f_{z(x^2-y^2)}$	0.001903			f_{yz^2}	0.001858
		f_{xyz}	-0.000464			f_{xyz}	-0.00065			f_{xyz}	-0.00083			$f_{y(y^2-3x^2)}$	-0.00113
		$f_{y(y^2-3x^2)}$	-0.001084			$f_{y(y^2-3x^2)}$	0.000422			$f_{y(y^2-3x^2)}$	0.000453			$f_{z(x^2-y^2)}$	0.000501
		$f_{x(x^2-3y^2)}$	0.0001319			$f_{x(x^2-3y^2)}$	0.000244			$f_{x(x^2-3y^2)}$	0.000506			f_{xyz}	0.000645

f_{z^3}	f_{xz^2}	0.0029013	f_{z^3}	f_{xz^2}	-0.00279	f_{z^3}	f_{xz^2}	-0.00258	f_{z^3}	f_{xz^2}	-0.00277
	f_{yz^2}	0.0009341		f_{yz^2}	0.000392		f_{yz^2}	0.000501		f_{yz^2}	0.000433
	f_{z^3}	0.0007919		f_{z^3}	0.001137		f_{z^3}	0.001648		f_{z^3}	0.003017
	$f_{z(x^2-y^2)}$	-0.001588		$f_{z(x^2-y^2)}$	0.00153		$f_{z(x^2-y^2)}$	0.001432		$f_{z(x^2-y^2)}$	0.001602
	f_{xyz}	0.0005178		f_{xyz}	-0.00056		f_{xyz}	-0.00065		f_{xyz}	-0.00096
	$f_{y(y^2-3x^2)}$	-0.0005932		$f_{y(y^2-3x^2)}$	0.00047		$f_{y(y^2-3x^2)}$	0.000116		$f_{y(y^2-3x^2)}$	0.000126
	$f_{x(x^2-3y^2)}$	0.0001651		$f_{x(x^2-3y^2)}$	0.000258		$f_{x(x^2-3y^2)}$	0.000427		$f_{x(x^2-3y^2)}$	0.000516
$f_{z(x^2-y^2)}$	f_{xz^2}	0.0003957	$f_{z(x^2-y^2)}$	f_{xz^2}	-0.00025	$f_{z(x^2-y^2)}$	f_{xz^2}	-0.00017	$f_{z(x^2-y^2)}$	f_{xz^2}	0.000471
	f_{yz^2}	0.0001282		f_{yz^2}	0.000851		f_{yz^2}	-0.00036		f_{yz^2}	0.000453
	f_{z^3}	0.0001651		f_{z^3}	-0.00023		f_{z^3}	-0.00033		f_{z^3}	-0.00018
	$f_{z(x^2-y^2)}$	0.0001319		$f_{z(x^2-y^2)}$	-6.5E-05		$f_{z(x^2-y^2)}$	5.04E-05		$f_{z(x^2-y^2)}$	-0.00033
	f_{xyz}	-0.000889		f_{xyz}	0.000803		f_{xyz}	0.000728		f_{xyz}	-0.00051
	$f_{y(y^2-3x^2)}$	0.0003516		$f_{y(y^2-3x^2)}$	-0.00066		$f_{y(y^2-3x^2)}$	0.001163		$f_{y(y^2-3x^2)}$	-0.00137
	$f_{x(x^2-3y^2)}$	0.0013567		$f_{x(x^2-3y^2)}$	0.001237		$f_{x(x^2-3y^2)}$	0.001186		$f_{x(x^2-3y^2)}$	-0.00116
$f_{x(x^2-3y^2)}$	f_{xz^2}	-0.000359	$f_{x(x^2-3y^2)}$	f_{xz^2}	0.000359	$f_{x(x^2-3y^2)}$	f_{xz^2}	0.000292	$f_{x(x^2-3y^2)}$	f_{xz^2}	0.000143
	f_{yz^2}	0.0012951		f_{yz^2}	0.001213		f_{yz^2}	0.001928		f_{yz^2}	0.002058
	f_{z^3}	0.0009341		f_{z^3}	0.001066		f_{z^3}	0.00133		f_{z^3}	0.001655
	$f_{z(x^2-y^2)}$	-0.000724		$f_{z(x^2-y^2)}$	0.000539		$f_{z(x^2-y^2)}$	0.000348		$f_{z(x^2-y^2)}$	0.000101
	f_{xyz}	0.0001596		f_{xyz}	-0.00159		f_{xyz}	-0.0016		f_{xyz}	-0.00181
	$f_{y(y^2-3x^2)}$	-0.001558		$f_{y(y^2-3x^2)}$	0.001501		$f_{y(y^2-3x^2)}$	0.000355		$f_{y(y^2-3x^2)}$	0.000237
	$f_{x(x^2-3y^2)}$	0.0001282		$f_{x(x^2-3y^2)}$	0.000227		$f_{x(x^2-3y^2)}$	0.000413		$f_{x(x^2-3y^2)}$	0.000599

f_{xyz}	f_{xz^2}	0.0014042	f_{xyz}	f_{xz^2}	-0.00133	f_{xyz}	f_{xz^2}	-0.00117	f_{xyz}	f_{xz^2}	-0.00089
	f_{yz^2}	-0.001558		f_{yz^2}	0.000753		f_{yz^2}	0.001288		f_{yz^2}	0.000869
	f_{z^3}	-0.0005932		f_{z^3}	0.000849		f_{z^3}	0.001145		f_{z^3}	0.001213
	$f_{z(x^2-y^2)}$	-0.001084		$f_{z(x^2-y^2)}$	0.001042		$f_{z(x^2-y^2)}$	0.00089		$f_{z(x^2-y^2)}$	0.000605
	f_{xyz}	0.0008753		f_{xyz}	-0.00096		f_{xyz}	-0.00095		f_{xyz}	-0.00066
	$f_{y(y^2-3x^2)}$	-0.001211		$f_{y(y^2-3x^2)}$	0.001169		$f_{y(y^2-3x^2)}$	0.000121		$f_{y(y^2-3x^2)}$	0.000106
	$f_{x(x^2-3y^2)}$	0.0003516		$f_{x(x^2-3y^2)}$	0.00047		$f_{x(x^2-3y^2)}$	0.00061		$f_{x(x^2-3y^2)}$	0.000609
$f_{y(y^2-3x^2)}$	f_{xz^2}	-0.000112	$f_{y(y^2-3x^2)}$	f_{xz^2}	-0.00044	$f_{y(y^2-3x^2)}$	f_{xz^2}	-0.00037	$f_{y(y^2-3x^2)}$	f_{xz^2}	-0.0002
	f_{yz^2}	0.0001596		f_{yz^2}	-0.00021		f_{yz^2}	-0.00133		f_{yz^2}	-0.00121
	f_{z^3}	0.0005178		f_{z^3}	-0.00087		f_{z^3}	-0.00095		f_{z^3}	-0.001
	$f_{z(x^2-y^2)}$	-0.000464		$f_{z(x^2-y^2)}$	-0.00026		$f_{z(x^2-y^2)}$	-5.3E-06		$f_{z(x^2-y^2)}$	0.000196
	f_{xyz}	0.0011235		f_{xyz}	0.001073		f_{xyz}	0.000934		f_{xyz}	0.000859
	$f_{y(y^2-3x^2)}$	0.0008753		$f_{y(y^2-3x^2)}$	-0.00141		$f_{y(y^2-3x^2)}$	0.000515		$f_{y(y^2-3x^2)}$	0.000519
	$f_{x(x^2-3y^2)}$	-0.000889		$f_{x(x^2-3y^2)}$	0.000642		$f_{x(x^2-3y^2)}$	0.000475		$f_{x(x^2-3y^2)}$	0.000351

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