Erratum

W.G. Harter and T.C. Reimer, Nuclear spin weights and gas phase spectral structure of $^{12}C_{60}$ and $^{13}C_{60}$ buckminsterfullerene, Chem. Phys. Letters 194 (1992) 230.

The correlation table between S_{60} and Y_h representations contain small errors, generally in the sixth or seventh place of the observable distribution. Errors of one part in 10^6 do not affect the predictions for spectral intensity distributions in the figures and would normally be unobservable. However, the errors are significant with regard to the tiny populations of states of highest spin, should they become important in some future experiment. The revised correlations (table 1) are given below. Numerical changes are required in section 3.

On page 235, the third sentence in paragraph 7 should be changed to read: "Neither A_g nor A_u has an ($I=29$) multiplet but they have 22 and 14 ($I=28$) multiplets, respectively".

On page 235, the third sentence in paragraph 8 should read as: "Then the numbers of states begin to level off and attain a maximum value of about seven hundred and fifty trillion for H_u or H_g species having nuclear spin $I=3$ and 4".

The total nuclear spin weights on page 237, should be revised as follows:

A_g $9.607679885269312000\times10^{15}$
T_{1g} $2.882303697092649600\times10^{16}$
T_{3g} $2.882303697092649600\times10^{16}$
G_g $3.843071685619372800\times10^{16}$
H_g $4.803839674093824000\times10^{16}$

A_u $9.607678793631424000\times10^{15}$
T_{1u} $2.882303799098121600\times10^{16}$
T_{3u} $2.882303799098121600\times10^{16}$
G_u $3.843071678461062400\times10^{16}$
H_u $4.803839557771827200\times10^{16}$

Finally, all species have slightly differing weights for odd and even parity. The G species are not exceptional in this regard; hence, the final sentence on page 237 should be omitted.

Table 1
Frequency table relating the number of Y_h species {A_g, T_{1g}, T_{3g}, G_g, H_g, A_u, T_{1u}, T_{3u}, G_u, H_u} that correlate with each of the S_{60} permutation group species. The g and u characters in the parity column denote even and odd parity, respectively, and the I column lables each of the pertinent S_{60} species by total nuclear spin

I	Par	A	T_1	T_3	G	H
30	g	1	0	0	0	0
	u	0	0	0	0	0
29	g	0	1	1	2	3
	u	0	2	2	2	2
28	g	22	36	36	58	80
	u	14	42	42	56	70
27	g	280	804	804	1084	1354
	u	260	826	826	1086	1336
26	g	3887	11238	11238	15125	19022
	u	3772	11324	11324	15096	18878

Table 1
Continued

I	Par	A	T_1	T_3	G	H
25	g	41528	124257	124257	165779	207307
	u	41266	124548	124548	165808	207074
24	g	372752	1114158	1114158	1486916	1859568
	u	371694	1114942	1114942	1486642	1858246
23	g	2801748	8402852	8402852	11204600	14006448
	u	2799558	8405316	8405316	11204874	14004522
22	g	18110340	54304371	54304371	72414711	90525051
	u	18103410	54309474	54309474	72412884	90516294
21	g	101874363	305608974	305608974	407483337	509357130
	u	101861196	305623968	305623968	407485164	509345790
20	g	505125708	1515241704	1515241704	2020367376	2525493654
	u	505090980	1515266928	1515266928	2020357878	2525449428
19	g	2227563126	6682635360	6682635360	8910198522	11137761648
	u	2227502850	6682705140	6682705140	8910208020	11137710870
18	g	8805633300	26416344630	26416344630	35221977930	44027608785
	u	8805495420	26416442910	26416442910	35221938330	44027431350
17	g	31395905685	94187559795	94187559795	125583465480	156979373610
	u	31395687300	94187817780	94187817780	125583505080	156979194780
16	g	101492436960	304475471640	304475471640	405967908600	507460345560
	u	101491992360	304475780520	304475780520	405967772880	507459765240
15	g	298734989924	896204629630	896204629630	1194939619444	1493674601616
	u	298734348764	896205406510	896205406510	1194939755164	1493674096176
14	g	803453709856	2410356037985	2410356037985	3213809747951	4017263465559
	u	803452525816	2410356831830	2410356831830	3213809357756	4017261891324
13	g	1980110898945	5940332333550	5940332333550	7920443232495	9900554131440
	u	1980109351620	5940334271070	5940334271070	7920443622690	9900552974310
12	g	4481735502630	13445194549380	13445194549380	17926930052010	22408665535200
	u	4481732871390	13445196226770	13445196226770	17926929098160	22408661950230
11	g	9331438352730	27994315570980	27994315570980	37325753923710	46657192295880
	u	9331435261110	27994319616450	27994319616450	37325754877560	46657190157990
10	g	17892025439775	53676052490265	53676052490265	71568077929785	89460103369560
	u	17892020535870	53676055391160	53676055391160	71568075926790	89460096462600
9	g	31605175642230	94815530686980	94815530686980	126420706329465	158025881932935
	u	31605170531130	94815537801090	94815537801090	126420708332460	158025878824830
8	g	51415130846760	154245351765540	154245351765540	205660482612300	257075613497820
	u	51415123186380	154245355784100	154245355784100	205660478970480	257075602195620
7	g	76925432220000	230776308338940	230776308338940	307701740558940	384627172778940
	u	76925425313100	230776318887660	230776318887660	307701744200760	384627169513860
6	g	105558807981090	316676363633175	316676363633175	422235171614265	527793979532265
	u	105558798039270	316676367808710	316676367808710	422235165847980	527793963824370
5	g	132192080280555	396576266554074	396576266554074	528768346834233	660960427177878
	u	132192072923730	396576279677184	396576279677184	528768352600518	660960425587128
4	g	149756091280506	449268197030424	449268197030424	599024288311326	748780379591832
	u	149756080818726	449268199508214	449268199508214	599024280327336	748780361146062
3	g	150988619146706	452965902231668	452965902231668	603954521378374	754943140441100
	u	150988613640506	452965915721858	452965915721858	603954529362364	754943142918890
2	g	130959549507485	392878564027270	392878564027270	523838113534755	654797663126220
	u	130959541149860	392878562690050	392878562690050	523838103839910	654797645073750
1	g	89413728633564	268241251090167	268241251090167	357654979723731	447068708357295
	u	89413727296344	268241262122232	268241262122232	357654989418576	447068716714920
0	g	31791575566072	95374646372040	95374646372040	127166221937640	158957797411208
	u	31791571643468	95374639953380	95374639953380	127166211596396	158957783147612

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