



## Corrigendum

## Corrigendum to “Matrix model to predict specific optical rotations of acyclic chiral molecules” [Tetrahedron 63 (2007) 2292–2314]

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## ARTICLE INFO

## Article history:

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Dear editor:

I appreciate one reader who found some errors in our paper entitled “Matrix model to predict specific optical rotations of acyclic chiral molecules” in *Tetrahedron* **2007**, 63, 2292–2314. The errors appeared in [Table 3](#). The corrections are listed below:

Because of the errors, some  $\det(D)$  and  $k_0$  values in [Table 4](#) should be corrected. However, all conclusions are not changed. The  $\det(D)$  correction of **52** becomes +0.10 from –0.21 and the change leads to the  $k_0$  values change from –0.45 to +0.095 and agreed well with the experimental result. The details are listed in the following table.

**Table 3**  
Values of **m**, **r**, and **s** values for some selected substituents

R	Original <b>m</b> values	Corrected <b>m</b>
–C <sub>2</sub> H <sub>5</sub>	13.6	14.1
–n-Pr	14.0	14.5
–n-Bu	14.1	14.6
–n-C <sub>5</sub> H <sub>11</sub>	14.2	14.7

**Table 4**  
Calculated values of  $\det(D)$ , experimental and computed  $[\alpha]_D$  values (by DFT methods) of specific rotation and the values of  $k_0$  from  $[\alpha]_D/\det(D)$  for 90 example molecules


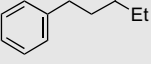
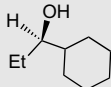
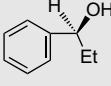

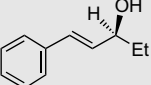

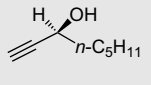











Structure no.	Structure	Original $\det(D)$	Corrected $\det(D)$	Original $k_0$	Corrected $k_0$
1		+16.16	+14.6	0.59	0.65
2		+14.98	+13.51	0.87	0.96
4		–27.18	–25.71	0.35	0.37
7		+31.23	+30.3	+0.66	+0.64
8		–14.46	–13.21	0.77	0.83

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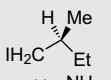
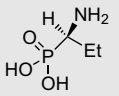
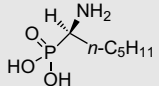
E-mail address: [hjzhu@mail.kib.ac.cn](mailto:hjzhu@mail.kib.ac.cn) (H.-J. Zhu).

Table 4 (continued)

Structure no.	Structure	Original det(D)	Corrected det(D)	Original $k_0$	Corrected $k_0$
12		-11.02	-9.99	0.68	0.75
17		+4.97	+9.52	5.40	2.82
24		+5.98	+7.94	1.45	1.02
25		-32.16	-31.23	1.42	1.46
26		-18.96	-17.88	0.94	1.00
27		-5.14	-3.60	1.16	1.65
28		-31.41	-30.49	1.44 (PhH) 1.55 (CHCl <sub>3</sub> )	1.48 (PhH) 1.59 (CHCl <sub>3</sub> )
36		-29.53	-29.16	0.76	0.77
40		+8.21	+8.02	4.70	4.85
41		+8.06	+7.87	5.30	5.48
42		+12.64	+11.57	2.43	2.89
43		+11.79	+10.72	4.28	4.71
44		+11.57	+10.51	3.97	4.37
45		+6.57	+6.08	4.20	4.54
46		+6.18	+5.68	4.14	4.51
47		+6.08	+5.58	3.96	4.32
48		+14.67	14.74	1.80	1.80
49		+14.73	14.80	2.8	2.8
52		-0.21	+0.10	-0.45	+0.095

(continued on next page)

Table 4 (continued)

Structure no.	Structure	Original det(D)	Corrected det(D)	Original $k_0$	Corrected $k_0$
69		+1.75	+1.61	3.26	3.54
84		-96.02 ( $s_{\text{NH}_2}=0$ ) -96.67 ( $s_{\text{NH}_2}=0.44$ )	-94.00 ( $s_{\text{NH}_2}=0$ ) -93.94 ( $s_{\text{NH}_2}=0.44$ )	0.17 0.17	0.17 0.17
85		-259.5	157.76	0.16	0.16

Thus, some statements in the text should be revised. These are omitted here. I apologise for any inconvenience caused.