ERRATUM

D. Agboola

Erratum to: Spin Symmetry in the Relativistic q -Deformed Morse Potential

Published online: 13 August 2011
 © Springer-Verlag 2011

Erratum to: Few-Body Syst DOI 10.1007/s00601-011-0235-8

Due to incorrect potential parameters, Table 1 has an error in the numerical values. Thus using the following parameters, HCl ($D_e = 4.62428$ eV, $a = 1.8677(\text{\AA})^{-1}$, $r_e = 1.2746\text{\AA}$, $\mu = 0.9801045$ amu), CO ($D_e = 11.23827$ eV, $a = 2.2994(\text{\AA})^{-1}$, $r_e = 1.1283\text{\AA}$, $\mu = 6.8606719$ amu) and LiH ($D_e = 2.51812$ eV, $a = 1.1280(\text{\AA})^{-1}$, $r_e = 1.5956\text{\AA}$, $\mu = 0.8801221$ amu), the correct energy values are given as follows:

Table 1 Relativistic energy eigenvalues in eV for some diatomic molecules using the spin symmetry q -deformed Morse potential for various values of n_r and ℓ and a special case of $q = 1$ and $C_s = \mu$

ℓ	$n_r, \kappa < 0$	(ℓ, j)	HCl	CO	LiH
0	1, -1	$1s_{1/2}$	0.3996082	0.2069262	0.2535564
1	1, -2	$1p_{3/2}$	0.4597027	0.2355141	0.3102991
2	1, -3	$1d_{5/2}$	0.5643986	0.2870905	0.3728063
3	1, -4	$1f_{7/2}$	0.7017060	0.3565330	0.4239400
4	1, -5	$1g_{9/2}$	0.8662905	0.4410100	0.4589505
0	2, -1	$2s_{1/2}$	1.2087353	0.5816056	0.7731859
1	2, -2	$2p_{3/2}$	1.2781308	0.6114061	0.8508134
2	2, -3	$2d_{5/2}$	1.4094793	0.6682998	0.9670132
3	2, -4	$2f_{7/2}$	1.5936540	0.7485331	1.0925039
4	2, -5	$2g_{9/2}$	1.8242290	0.8487869	1.2127939

The online version of the original article can be found under doi:10.1007/s00601-011-0235-8.

D. Agboola
 Theoretical Physics Group, Department of Mathematics, Covenant University, Ota, P.M.B.1023, Ogun State, Nigeria

Present address

D. Agboola (✉)

Department of Mathematics, School of Mathematics and Physics, The University of Queensland,
 Brisbane, QLD 4072, Australia
 E-mail: davagboola@gmail.com