IOP Publishing 2D Mater. 2 (2015) 049501 doi:10.1088/2053-1583/2/4/049501

2D Materials

CORRIGENDUM

Corrigendum: k.p theory for two-dimensional transition metal dichalcogenide semiconductors (2015 *2D Mater.* **2** 022001)

Andor Kormányos[1], Guido Burkard[1], Martin Gmitra[2], Jaroslav Fabian[2], Viktor Zólyomi[3], Neil D Drummond[3] and Vladimir Fal'ko[3]

[1] Department of Physics, University of Konstanz, D-78464 Konstanz, Germany
[2] Institute for Theoretical Physics, University of Regensburg, D-93040 Regensburg, Germany
[3] Department of Physics, Lancaster University, Lancaster LA1 4YB, UK

E-mail: andor.kormanyos@uni-konstanz.de **and** guido.burkard@uni-konstanz.de

OPEN ACCESS

2 November 2015

In our paper there are a couple of misprints which we wish to correct in order to avoid any possible confusion.

Firstly, in table 12, in the first column, in the 5th and 6th lines the band index 'VB' is incorrect and should read 'CB' instead. The corrected table 12 reads:

Table 12. Decay rate of monolayer MX_2 at the Γ point in units of 1/Å.

	MoS_2	$MoSe_2$	$MoTe_2$	WS_2	WSe_2	WTe_2
M_{VB}	1.44	0.91	1.20	1.54	1.02	1.35
X_{VB}	2.31	2.19	3.18	2.33	2.10	3.07
H_{VB}	1.53	1.20	2.03	1.60	1.23	1.98
M_{CB}	5.10	3.50	5.44	3.50	3.28	5.37
X_{CB}	3.84	4.28	6.01	4.50	4.48	5.99
H_{CB}	5.01	3.89	5.50	6.40	3.96	5.49

Secondly, in appendix A, the index showing the symmetry of the wave function at the *K* point for the second band above the conduction band was incorrect: instead of $|\Psi^{cb+2}_{E_1'}\rangle$ the correct notation reads $|\Psi^{cb+2}_{E_2'}\rangle$. This misprint affects three sentences in appendix A.

The first sentence in the second paragraph in appendix A should therefore read: 'our seven-band model (without spin) contains every band between the third band below the VB (which we denote by VB-3) and the second band above the CB (denoted by CB+2), i.e., we take the basis $\{|\Psi^{vb-3}_{E_2'}, s\rangle, |\Psi^{vb-2}_{E_1''}, s\rangle, |\Psi^{vb-1}_{E_2''}, s\rangle, |\Psi^{vb}_{A_1''}, s\rangle, |\Psi^{cb}_{E_1'}, s\rangle, |\Psi^{cb+1}_{A_2''}, s\rangle, |\Psi^{cb+2}_{E_2'}, s\rangle\}$.'

The sixth sentence in this paragraph should read: 'this first group contains the following states: $\{|\Psi^{vb}_{A_1'}, s\rangle, |\Psi^{cb}_{E_1'}, s\rangle, |\Psi^{vb-3}_{E_2'}, s\rangle, |\Psi^{cb+2}_{E_1'}, s\rangle\}$.'

Finally, the ninth sentence in the fourth paragraph of appendix A should read: 'thus we arrive at a four-band model containing $\{|\Psi^{vb}_{A_1'}, s\rangle, |\Psi^{cb}_{E_1'}, s\rangle, |\Psi^{vb-3}_{E_2'}, s\rangle, |\Psi^{cb+2}_{E_2'}, s\rangle\}$.'