Erratum: Modeling the physisorption of graphene on metals [Phys. Rev. B **97, 165403 (2018)]**

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There is a typographical error in the 11th line from the bottom in the second column of p. 2. The correct equation is $n = 4/\{(2.46/0.529)[(2.46 \times \sqrt{3}/2)/0.529] \times 3.4\}$. n is the electron density of the graphene layer and should not be confused with $\bar{n}$, the average electron density of the jellium substrate in the line after Eq. (6).

In Eq. (3), $\xi = \beta/\sqrt{\bar{\omega}_p^2 + u^2}$ and $\beta^2 = 3k_F^2/5$, where $\bar{\omega}_p = \sqrt{4\pi\bar{n}}$ is the plasmon frequency of the metal substrate [1] and $k_F^2 = 2\epsilon_F$. The Fermi energy of the metal substrate ϵ_F is given by $\epsilon_F = (3\pi^2\bar{n})^{2/3}/2$. The electron density for a simple metal, such as aluminum, is $\bar{n} = 3/(4\pi r_s^3)$. However, for transition metals, we use $\bar{n} = 3/[4\pi(r_s^f)^3]$ [2]. The equation for r_s^f in the paper is incorrect; the correct equation is $r_s^f = (m_{\text{opt}})^{1/3}r_s$ [2]. This correction changes λ and $d_{\perp}^f(0)$ in Table S1 of the Supplemental Material. The corrected [2,3] $\lambda^f = -0.0105(r_s^f)^2 + 0.1285r_s^f + 0.248$ and $d_{\perp}^f(0) = 0.02(r_s^f)^2 - 0.27r_s^f + 2.06$ are listed below.

The correction $r_s^f = (m_{\text{opt}})^{1/3}r_s$ changes the van der Waals (vdW) coefficients and Z_0 in Table II of the paper and the Perdew-Burke-Ernzerhof functional (PBE) + vdW physisorp-

tion energies in Table III. The corrected columns of Tables II and III are listed below.

The optimal cutoff parameter b is 3.33 bohrs, instead of 3.35 bohrs in the paper. The mean absolute error of the total physisorption energy for graphene on the eight metal surfaces is still 6 meV/carbon atom. Thus, the conclusions reported in the paper remain valid.

TABLE II. Corrected vdW coefficients and Z_0 for graphene on the (1,1,1) transition metals Ni, Pd, Pt, Cu, Ag, and Au and on the (0,0,0,1) surface of Co, all in atomic units.

	C_3	C_5^q	C_5^{nl}	C_5	Z_0
Ni	0.281	1.357	0.863	2.220	0.479
Co	0.283	1.371	0.871	2.241	0.470
Pd	0.349	1.704	1.055	2.759	0.320
Pt	0.352	1.717	1.059	2.776	0.318
Cu	0.300	1.453	0.914	2.368	0.426
Ag	0.317	1.542	0.909	2.451	0.433
Au	0.345	1.685	1.025	2.710	0.348

TABLE III. Corrected PBE + vdW physisorption energies in the meV/carbon atom.

	PBE + vdW
Al	68
Ni	67
Co	67
Pd	83
Pt	82
Cu	76
Ag	76
Au	86
ME	0
MAE	6

TABLE SI. Corrected values for λ and $d_{\perp}^f(0)$. For Cu, Ag, and Au, the r_s , m_{opt} , ω_0 , and Ω inputs are taken from Ref. [2], and r_s^f is calculated from $r_s^f = (m_{\text{opt}})^{1/3}r_s$. For Ni, Co, Pd, and Pt, the r_s , m_{opt} , ω_0 , and Ω inputs are extrapolated as explained in Ref. [3].

Metal	λ^f	$d_{\perp}^f(0)$
Ni	0.542	1.424
Co	0.542	1.423
Pd	0.543	1.420
Pt	0.543	1.422
Cu	0.543	1.422
Ag	0.538	1.433
Au	0.539	1.430

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[3] J. Tao and A. M. Rappe, *Phys. Rev. Lett.* **112**, 106101 (2014).