Erratum: Theory of reflectivity properties of graphene-coated material plates [Phys. Rev. B **92**, 125419 (2015)]

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There are several technical errors in this paper that have no impact on the obtained results. On the right-hand side of Eq. (10), the multiple i in front of the second line should be replaced with $-i$. As a result, Eqs. (19) and (20) take the form

$$\begin{aligned}\Pi_{00}(\omega, \theta_i) &\approx -8\alpha \ln 2 \frac{k_B T}{c} \sin^2 \theta_i, \\ \Pi(\omega, \theta_i) &\approx 8\alpha \ln 2 \frac{k_B T \omega^2}{c^3} \sin^2 \theta_i\end{aligned}\quad (19)$$

and

$$\begin{aligned}\Pi_{00}^*(\omega, \theta_i) &\approx 8i\alpha \ln 2 \frac{\omega_T}{\omega} \cos \theta_i, \\ \Pi^*(\omega, \theta_i) &\approx 8i\alpha \ln 2 \frac{\omega_T}{\omega}.\end{aligned}\quad (20)$$

Note that in the asymptotic region (18), the pure imaginary polarization tensor at $T = 0$ and the imaginary part of the thermal correction to it cancel each other out, resulting in real expressions (19). In Eqs. (21) and (22), the terms $2\pi\alpha$ should be deleted in both numerators and denominators. The multiple v_F^2 in the last term of Eq. (8) should be $\tilde{v}_F^2$.

Furthermore, due to typos in the optical data for the imaginary parts of the complex index of refraction of SiO_2 in the frequency region $\omega \sim 100$ meV, the structure of absorption peaks in Fig. 3 is shown incorrectly. The corrected Fig. 3 is shown here.

The authors are greatly indebted to M. Antezza for attracting their attention to an incorrect structure of peaks in Fig. 3.

FIG. 3. The reflectivities of the graphene-coated and uncoated silica plates (lines 2, 3, and 1, respectively) at the normal incidence are shown as functions of frequency at low frequencies. Lines 2 and 3 are plotted for the graphene-coated silica at $T = 75$ and 300 K, respectively.