Erratum: Multipolar engineering of subwavelength dielectric particles for scattering enhancement [Phys. Rev. Applied 15, 024052 (2021)]

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In this erratum, we would like to outline an erroneous derivation made in the Appendix of the original paper. A minor correction concerns Eq. (A7) where one should take into account the fact that all singular values are real non-negative, which leads to the bound $\sigma \leq 1$. A logical mistake is the transition from Eq. (A8) to Eq. (A9), which in fact is completely unsound. With these remarks, we cannot conclude that the partial scattering cross-sections (SCSs) have a certain bound except the total SCS. Thus, the increase of partial SCSs is a matter of optimization of particle geometry.

Nevertheless, the main results of the paper remain solid and correct since the provided generalization of the superscattering condition does not rely on the specific value of the partial cross-section limit.

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