Addendum: Group delay and dispersion in adiabatic plasmonic nanofocusing

Vasily Kravtsov, Joanna M. Atkin, and Markus B. Raschke*

Department of Physics, Department of Chemistry, and JILA, University of Colorado,
Boulder, CO 80309, USA
**Corresponding author: markus.raschke@colorado.edu*

In our Letter [1], we demonstrated the group velocity decrease of a surface plasmon polariton propagating on a conical surface of a tip toward its apex as shown in Fig. 3(a) of the manuscript. We would like to clarify that the abscissa of the graph in that figure labeled as "Distance to apex" defines the distance from the *geometric* apex. By geometric apex we mean the vertex of the ideal cone inscribed by the tip, as shown in Fig. 1A below.
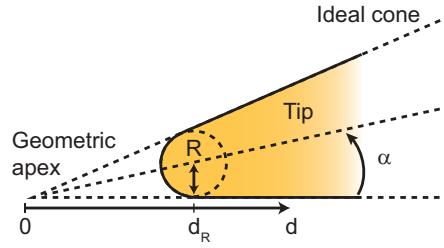

Fig. 1A. Ideal cone and real tip geometry.

The group velocity decrease of the surface plasmon polariton terminates at $\sim 0.2c$, when the field reradiates as an effective point dipole centered in the sphere of radius R inscribed into the tip apex. The corresponding distance of that emitter from the geometric apex is $d_R \simeq R \cot \alpha \simeq 134$ nm for the tip used in the experiment with $R \simeq 20$ nm and $\alpha \simeq 8.5°$. We therefore provide for better clarity a revised figure below (Fig. 2A).
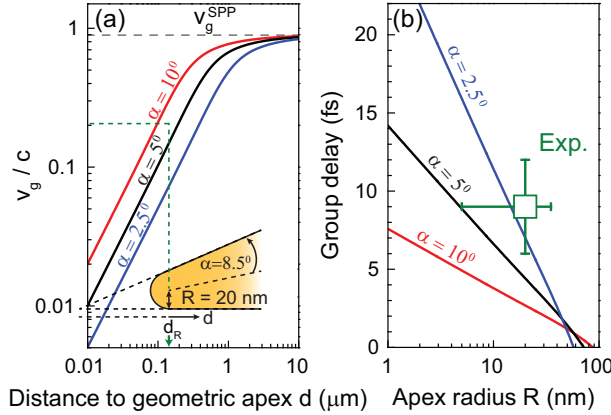

Fig. 2A. Revised version of Fig. 3 from [1].

This correction does not affect any conclusions drawn in the Letter.

References

1. V. Kravtsov, J. M. Atkin, and M. B. Raschke, Opt. Lett. **38**, 1322 (2013).