Supporting Information

Analyte Co-Localization at Electromagnetic Gap Hot-Spots For Highly Sensitive (Bio)molecular Detection by Plasmon Enhanced Spectroscopies

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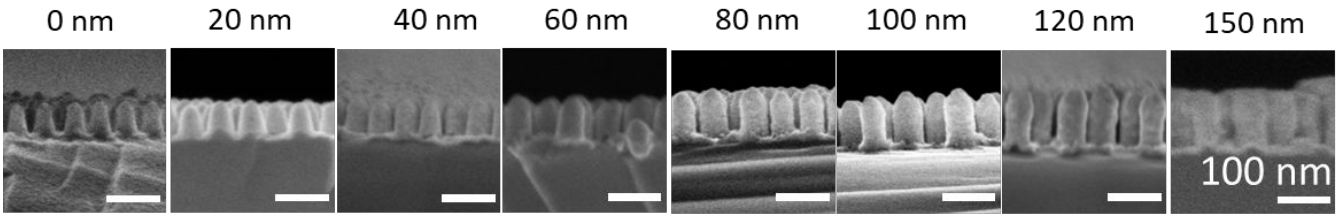
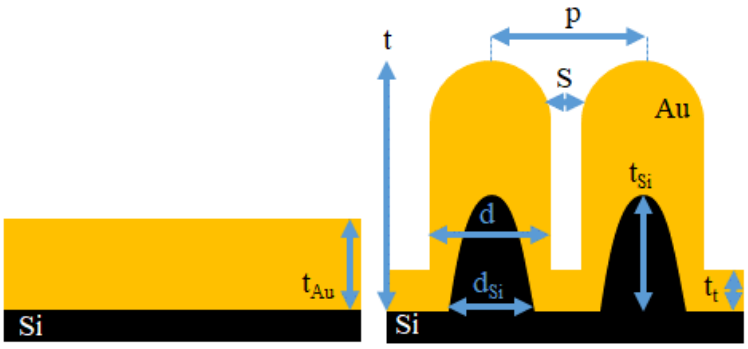


Figure S1. Cross section of the Au-NPA with increasing thickness of sputtered gold. The gold thickness is indicated on top of the images.

Table S1. Geometric parameters of the gold nanopillars (Au NP) used for numerical simulations of EM field profiles.



Au Deposition t_{Au} (nm)	Au-NP Diameter d (nm)	Au NP Separation S (nm)	Au-NP Pitch p (nm)	Au thickness at NP Base t_t (nm)	Au-NP Height t (nm)
150	104	6	110	44	265
120	98	12	110	37	235
100	94	16	110	32	214
80	90	20	110	28	194

60	86	24	110	23	173
40	82	28	110	18	153
20	78	32	110	13	132
0 (SiNP)	74	36	110	0	111

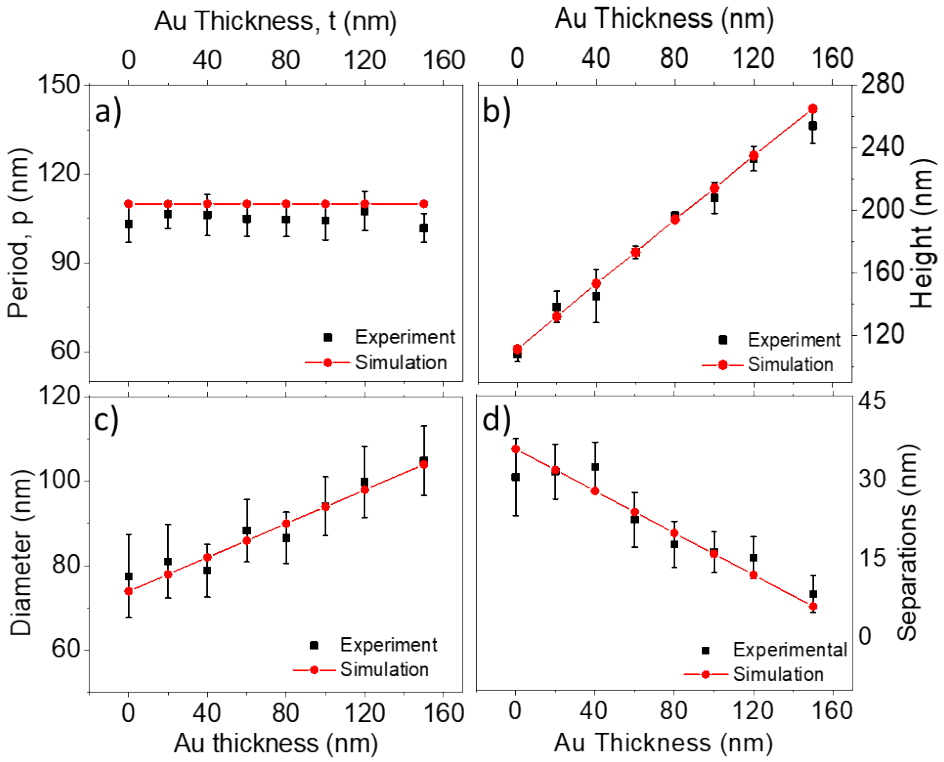


Figure S2. The plots show a comparison of the experimental values for a) period, b) height, c) diameter and d) separations, with those used in the models for FDTD simulations.

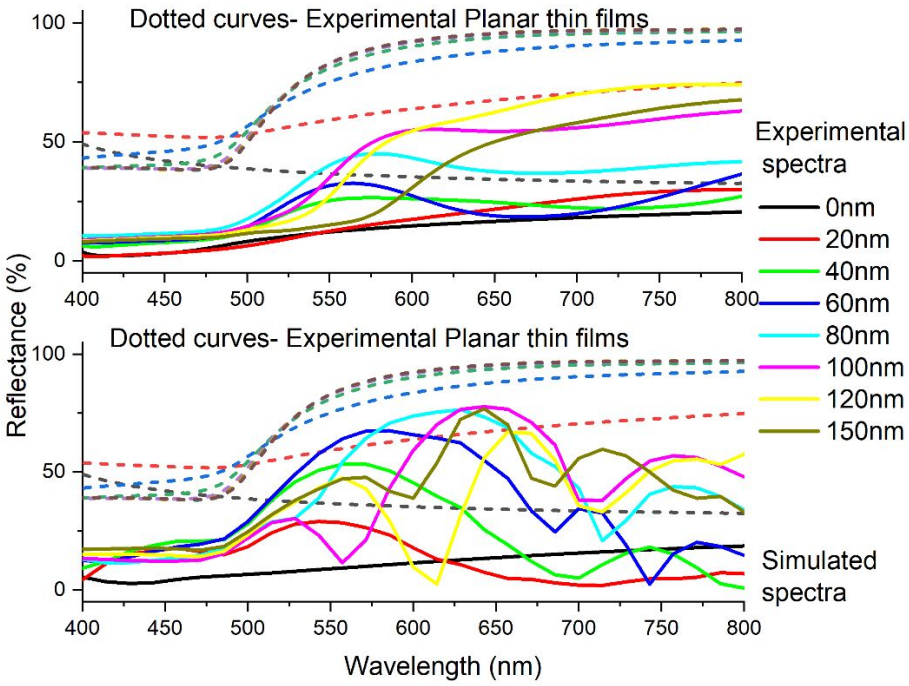


Figure S3. Comparison of (top) experimental and (bottom) simulated reflectance of Au-NPA. Dotted lines show experimental spectra of planar Au thin films.