



**Visualization 5.** Ratios of different quantities with respect to those in corresponding reference system, normalized by the corresponding thresholds of superradiance. (a)  $r\delta R_{exc/em}/N$  normalized radiative rate enhancement ratios at excitation and emission, (b)  $rcQE/1$  normalized corrected quantum efficiency ratio at emission, (c)  $rP_x factor/N^2$  normalized total fluorescence enhancement ratio and  $rP_x cQE/N^2$  normalized objective function enhancement ratio, (d) average of the normalized ratios. Lines are to guide eyes and to uncover tendencies of depicted quantities in groups of (a, b, c, d) spherical and ellipsoidal nanoresonators, among them (a)  $r\delta R_{exc/em}/N$  at normalized radiative rate enhancement ratios at the excitation and emission separately, (c)  $rP_x factor/N^2$  and  $rP_x cQE/N^2$  normalized total fluorescence enhancement and objective function enhancement ratios separately.

Colors indicate, when certain quantity is larger in case of

4 6 number of emitters  
coated bare type of nanoresonator  
spherical ellipsoidal geometry of nanoresonator

normalized ratio	bare_4		coated_4		bare_6		coated_6	
	spherical	ellipsoidal	spherical	ellipsoidal	spherical	ellipsoidal	spherical	ellipsoidal
$rcQE_{em}/1$	1.000	1.033	1.000	1.045	1.010	1.038	1.000	1.020
$r\delta R_{ex}/N$	1.000	1.000	0.995	1.000	0.998	1.001	0.997	1.001
$P_{ex}^N/P_{ex}^{1*}/N^2$	1.000	1.000	0.995	1.000	0.998	1.001	0.997	1.001
$r\delta R_{em}/N$	1.005	1.032	1.003	1.042	1.005	1.035	1.002	1.021
$P_{em}^N/P_{em}^{1*}/N^2$	1.005	1.032	1.003	1.042	1.005	1.035	1.002	1.022
$rP_x/N^2$	1.004	1.031	0.998	1.042	1.004	1.036	0.999	1.023
$rP_xcQE/N^2$	1.009	1.065	0.998	1.089	1.009	1.075	1.001	1.047
$\overline{rX}$	1.004	1.032	0.9986	1.044	1.005	1.037	0.9996	1.022

**Table corresponding to Visualization 5.** Ratios of  $cQE$  quantum efficiencies at emission, radiative rate enhancements,  $P_x$  factors and  $P_xcQE$  objective functions with respect to those of corresponding reference systems, normalized by the corresponding threshold of superradiance.  $N$ : number of color centers,  $rcQE_{em}/1$ : normalized corrected quantum efficiency ratio at emission,  $r\delta R_{ex}/N$ : normalized excitation rate enhancement ratio,  $P_{ex}^N/P_{ex}^{1*}/N^2$ : normalized ratio of radiated powers at the excitation,  $r\delta R_{em}/N$ : normalized emission rate enhancement ratio,  $P_{em}^N/P_{em}^{1*}/N^2$ : normalized ratio of radiated powers at the emission,  $rP_x/N^2$ : normalized  $P_x$  factor ratio,  $rP_xcQE/N^2$ : normalized objective function ratio,  $\overline{rX}$ : average of the normalized ratios to qualify the extent of superradiance threshold overriding.