

(a) $d = 50 \ \mu \text{m}, s = 22 \ \mu \text{m}, z = 30 \ \mu \text{m}, m = 600$





Figure S1. R_{\min} dependence of w, S_{\max} , and ΣB_{\max} for $d=50 \ \mu\text{m}$, $s=22 \ \mu\text{m}$, m=600, and (a) $z=30 \ \mu\text{m}$, (b) $z=100 \ \mu\text{m}$ based on Equation (11).



(a) $d = 50 \ \mu \text{m}, s = 22 \ \mu \text{m}, z = 30 \ \mu \text{m}, m = 200$



(b) $d = 50 \ \mu \text{m}, s = 22 \ \mu \text{m}, z = 100 \ \mu \text{m}, m = 200$

Figure S2. R_{\min} dependence of w, S_{\max} , and ΣB_{\max} for $d=50 \ \mu\text{m}$, $s=22 \ \mu\text{m}$, m=200, and (a) $z=30 \ \mu\text{m}$, (b) $z=100 \ \mu\text{m}$ based on Equation (11).



(a) $d = 70 \ \mu \text{m}, s = 2 \ \mu \text{m}, z = 30 \ \mu \text{m}, m = 600$



(b) $d = 70 \ \mu \text{m}, s = 2 \ \mu \text{m}, z = 100 \ \mu \text{m}, m = 600$

Figure S3. R_{\min} dependence of w, S_{\max} , and ΣB_{\max} for $d=70 \ \mu\text{m}$, $s=2 \ \mu\text{m}$, m=600, and (a) $z=30 \ \mu\text{m}$, (b) $z=100 \ \mu\text{m}$ based on Equation (11).



(a) $d = 70 \ \mu \text{m}, s = 2 \ \mu \text{m}, z = 30 \ \mu \text{m}, m = 200$



(b) $d = 70 \ \mu \text{m}, s = 2 \ \mu \text{m}, z = 100 \ \mu \text{m}, m = 200$

Figure S4. R_{\min} dependence of w, S_{\max} , and ΣB_{\max} for $d=70 \ \mu\text{m}$, $s=2 \ \mu\text{m}$, m=200, and (a) $z=30 \ \mu\text{m}$, (b) $z=100 \ \mu\text{m}$ based on Equation (11).



(a) $d = 50 \ \mu \text{m}, s = 22 \ \mu \text{m}, z = 30 \ \mu \text{m}, m = 600$





Figure S5. R_{\min} dependence of w, S_{\max} , and ΣB_{\max} for $d=50 \ \mu\text{m}$, $s=22 \ \mu\text{m}$, m=600, and (a) $z=30 \ \mu\text{m}$, (b) $z=100 \ \mu\text{m}$ based on Equation (12).



(a) $d = 50 \ \mu \text{m}, s = 22 \ \mu \text{m}, z = 30 \ \mu \text{m}, m = 200$



(b) $d = 50 \ \mu \text{m}, s = 22 \ \mu \text{m}, z = 100 \ \mu \text{m}, m = 200$

Figure S6. R_{\min} dependence of w, S_{\max} , and ΣB_{\max} for $d=50 \ \mu\text{m}$, $s=22 \ \mu\text{m}$, m=200, and (a) $z=30 \ \mu\text{m}$, (b) $z=100 \ \mu\text{m}$ based on Equation (12).



(a) $d = 70 \ \mu \text{m}, s = 2 \ \mu \text{m}, z = 30 \ \mu \text{m}, m = 600$



(b) $d = 70 \ \mu \text{m}, s = 2 \ \mu \text{m}, z = 100 \ \mu \text{m}, m = 600$

Figure S7. R_{\min} dependence of w, S_{\max} , and ΣB_{\max} for $d=70 \ \mu\text{m}$, $s=2 \ \mu\text{m}$, m=600, and (a) $z=30 \ \mu\text{m}$, (b) $z=100 \ \mu\text{m}$ based on Equation (12).



(a) $d = 70 \ \mu \text{m}, s = 2 \ \mu \text{m}, z = 30 \ \mu \text{m}, m = 200$



(b) $d = 70 \ \mu \text{m}, s = 2 \ \mu \text{m}, z = 100 \ \mu \text{m}, m = 200$

Figure S8. R_{\min} dependence of w, S_{\max} , and ΣB_{\max} for $d=70 \ \mu\text{m}$, $s=2 \ \mu\text{m}$, m=200, and (a) $z=30 \ \mu\text{m}$, (b) $z=100 \ \mu\text{m}$ based on Equation (12).