
(a) $d=50 \mu \mathrm{~m}, s=\mathbf{2 2} \mu \mathrm{m}, z=\mathbf{3 0} \mu \mathrm{m}, m=600$

(b) $d=50 \mu \mathrm{~m}, s=22 \mu \mathrm{~m}, z=100 \mu \mathrm{~m}, m=600$

Figure S1. $R_{\min }$ dependence of $w, S_{\max }$, and $\Sigma B_{\max }$ for $d=50 \mu \mathrm{~m}, s=22$ $\mu \mathrm{m}, m=600$, and (a) $z=30 \mu \mathrm{~m}$, (b) $z=100 \mu \mathrm{~m}$ based on Equation (11).
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(a) $d=\mathbf{5 0} \mu \mathrm{m}, s=\mathbf{2 2} \mu \mathrm{m}, z=\mathbf{3 0} \mu \mathrm{m}, m=200$

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

Figure $\mathrm{S} 2 . R_{\text {min }}$ dependence of $w, S_{\max }$, and $\Sigma B_{\max }$ for $d=50 \mu \mathrm{~m}, s=22$ $\mu \mathrm{m}, m=200$, and (a) $z=30 \mu \mathrm{~m}$, (b) $z=100 \mu \mathrm{~m}$ based on Equation (11).
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(a) $d=70 \mu \mathrm{~m}, s=2 \mu \mathrm{~m}, z=30 \mu \mathrm{~m}, m=600$

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

Figure S3. $R_{\min }$ dependence of $w, S_{\max }$, and $\Sigma B_{\max }$ for $d=70 \mu \mathrm{~m}, s=2$ $\mu \mathrm{m}, m=600$, and (a) $z=30 \mu \mathrm{~m}$, (b) $z=100 \mu \mathrm{~m}$ based on Equation (11).
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(a) $d=70 \mu \mathrm{~m}, s=2 \mu \mathrm{~m}, z=\mathbf{3 0} \mu \mathrm{m}, m=200$

(b) $d=\mathbf{7 0} \mu \mathrm{m}, s=2 \mu \mathrm{~m}, z=100 \mu \mathrm{~m}, m=200$

Figure S4. $R_{\min }$ dependence of $w, S_{\max }$, and $\Sigma B_{\max }$ for $d=70 \mu \mathrm{~m}, s=2$ $\mu \mathrm{m}, m=200$, and (a) $z=30 \mu \mathrm{~m}$, (b) $z=100 \mu \mathrm{~m}$ based on Equation (11).
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(a) $d=\mathbf{5 0} \mu \mathrm{m}, s=\mathbf{2 2} \mu \mathrm{m}, z=\mathbf{3 0} \mu \mathrm{m}, m=600$

(b) $d=50 \mu \mathrm{~m}, s=22 \mu \mathrm{~m}, z=100 \mu \mathrm{~m}, m=600$

Figure S5. $R_{\min }$ dependence of $w, S_{\text {max }}$, and $\Sigma B_{\max }$ for $d=50 \mu \mathrm{~m}, s=22$ $\mu \mathrm{m}, m=600$, and (a) $z=30 \mu \mathrm{~m}$, (b) $z=100 \mu \mathrm{~m}$ based on Equation (12).
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(a) $d=\mathbf{5 0} \mu \mathrm{m}, s=\mathbf{2 2} \mu \mathrm{m}, z=\mathbf{3 0} \mu \mathrm{m}, m=200$

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

Figure S6. $R_{\min }$ dependence of $w, S_{\max }$, and $\Sigma B_{\max }$ for $d=50 \mu \mathrm{~m}, s=22$ $\mu \mathrm{m}, m=200$, and (a) $z=30 \mu \mathrm{~m}$, (b) $z=100 \mu \mathrm{~m}$ based on Equation (12).
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(a) $d=70 \mu \mathrm{~m}, s=2 \mu \mathrm{~m}, z=30 \mu \mathrm{~m}, m=600$

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

Figure S7. $R_{\min }$ dependence of $w, S_{\max }$, and $\Sigma B_{\max }$ for $d=70 \mu \mathrm{~m}, s=2$ $\mu \mathrm{m}, m=600$, and (a) $z=30 \mu \mathrm{~m}$, (b) $z=100 \mu \mathrm{~m}$ based on Equation (12).
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(a) $d=70 \mu \mathrm{~m}, s=2 \mu \mathrm{~m}, z=30 \mu \mathrm{~m}, m=200$

(b) $d=\mathbf{7 0} \mu \mathrm{m}, s=2 \mu \mathrm{~m}, z=100 \mu \mathrm{~m}, m=200$

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