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https://doi.org/10.1038/s41467-019-09777-8 OPEN

[illegible]

[illegible] & [illegible]

[illegible]

[1] D m P c d M c C , v C d , B d , CO 80309, A. [2] Fc M m c d P c , v lj j , Jd 19, 1000 lj j , v . [3]

C

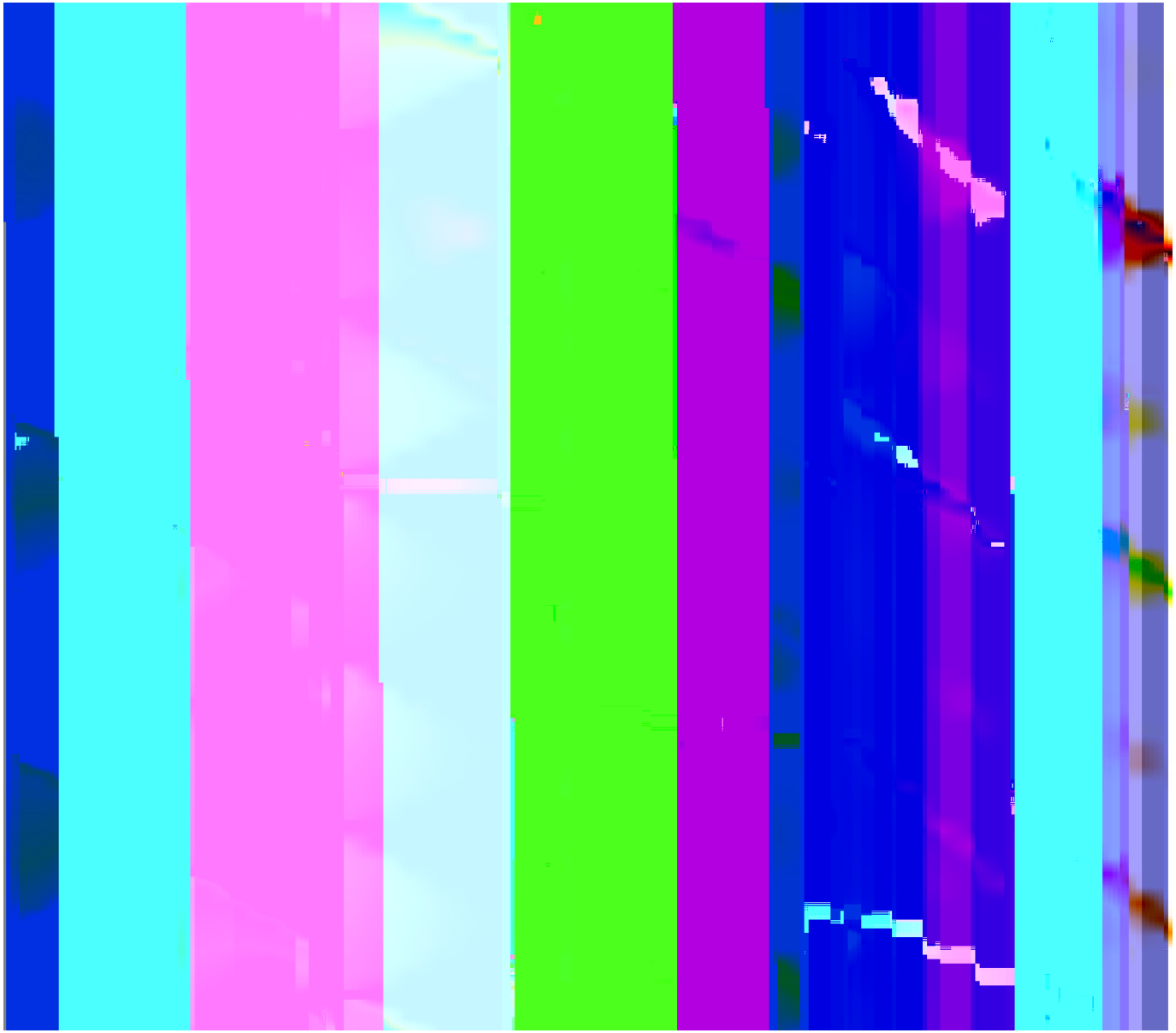
[illegible]

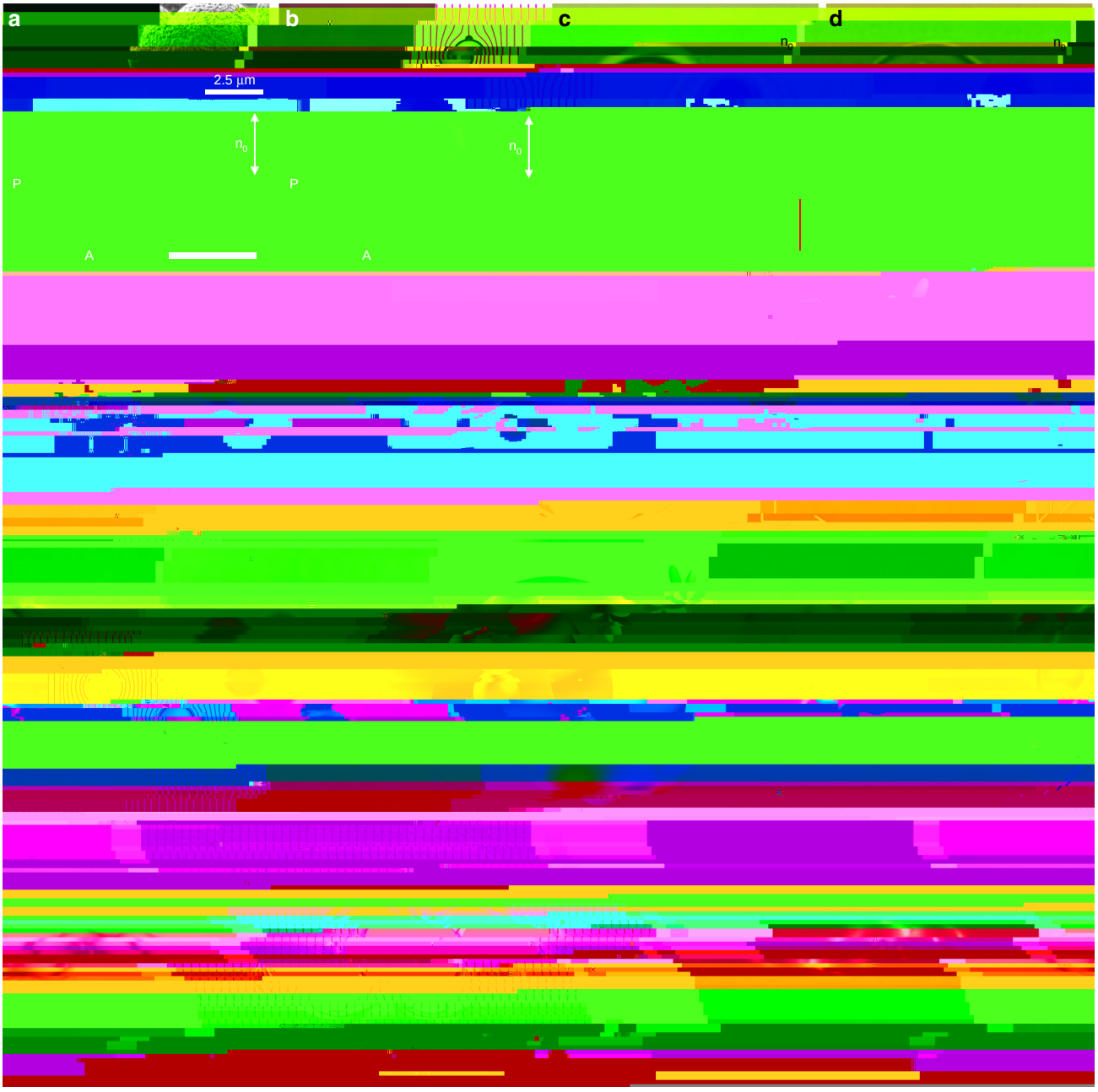
$$\int_0^{2\pi}\int_0^{\pi} \quad , \theta, \varphi \quad \frac{1}{1} \quad \theta, \varphi \quad \theta \quad \varphi, \qquad 4$$

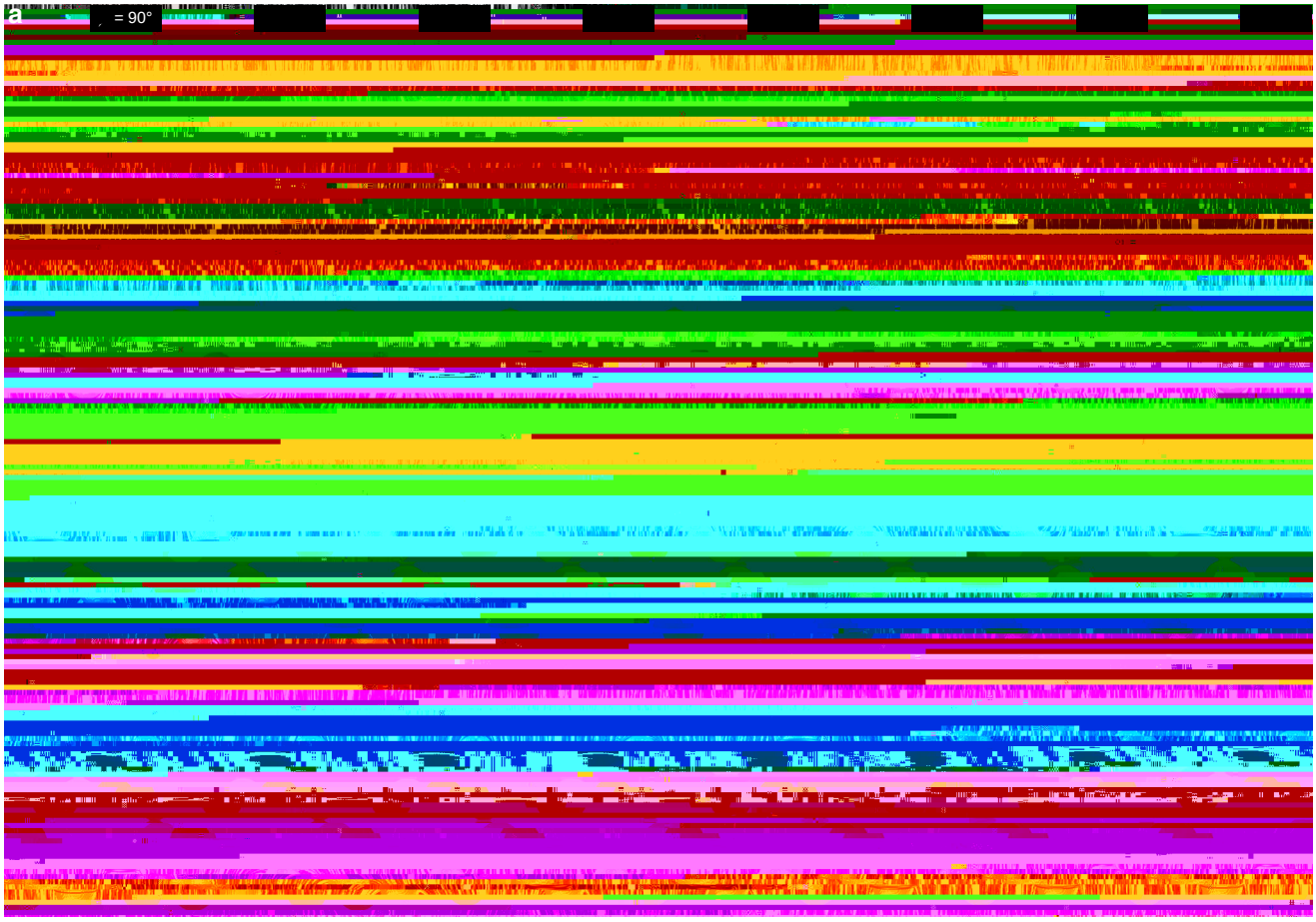
[illegible] $\ll 1$ [illegible] ≈ 1. [illegible] (θ, ϕ) [illegible] 1 [illegible]

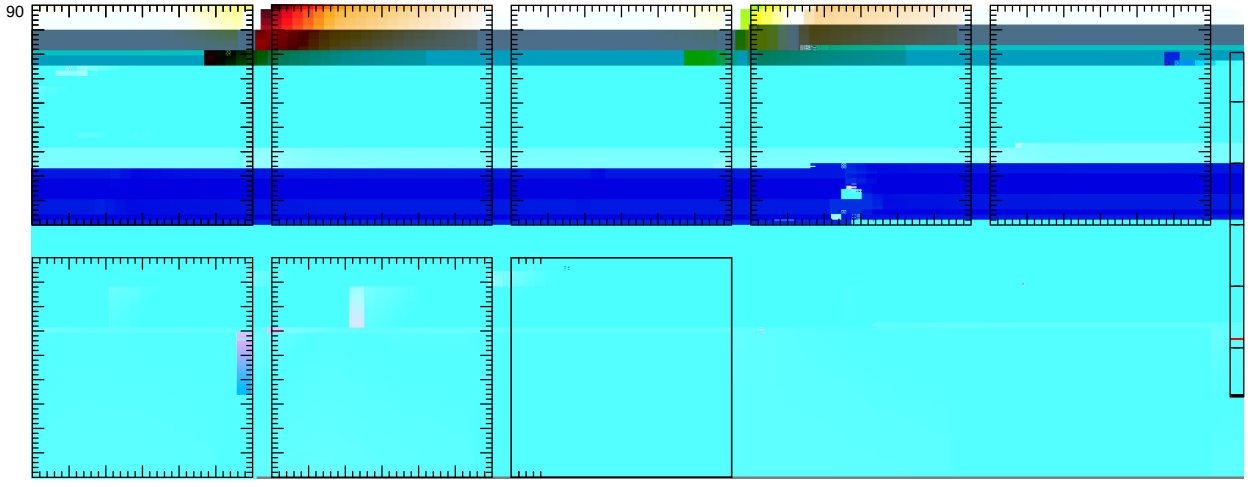
E a c e a c e c d f d a he e . [illegible] 2) [illegible] 5 [illegible] 3 –41 [illegible]

r_b (r_a)




a
b
c
d
2.5 µm
n0
n0
P
P
A
A
n0
n0


a
= 90°


90

16- [illegible] 5 [illegible] a a [illegible] a [illegible] m [illegible] a a [illegible] a [illegible] a [illegible] n [illegible] in [illegible] a [illegible] n [illegible] in [illegible] m [illegible] m [illegible] fi [illegible] n [illegible] a [illegible] a [illegible] a [illegible] m [illegible] fi [illegible] a [illegible] m [illegible] a [illegible] a [illegible] a [illegible] = 2/5 [illegible] a [illegible] a [illegible] n [illegible] = 0. [illegible] a [illegible] a [illegible] m [illegible] n [illegible] a [illegible] a [illegible] n [illegible] in [illegible] a [illegible] n [illegible] m [illegible] m [illegible] a [illegible] a [illegible] n [illegible] a [illegible] a [illegible] n [illegible] a [illegible] m [illegible] a [illegible] n [illegible] ([illegible] a 5 [illegible] a [illegible] m [illegible] m/m [illegible] m). [illegible] a [illegible] a [illegible] m [illegible] a [illegible] n [illegible] a [illegible] a [illegible] a [illegible] a [illegible] m [illegible] a 00076(000003 .20000. 13 003 ,3 23(76(n)300076(n)-324([illegible] (076(.03 (76( )0( )21.6000003)-322 .6000003 5(a) 7 (a)1 .70000076(a)22.3076(n)0