

Table S2 Band-height intensities (BHIs) of PAA recovered from non-sterilized and sterilized sand and loam after static incubation (S0, S3, S5, S10) and cyclic drying–rewetting (C0, C3, C5, C10). Values represent arithmetic means with 95% confidence intervals.

Soil type	Incubation treatment	OH-BHI	CH-BHI	Carbonyl/carboxyl-BHI	SiO/AlOSi-BHI
sand	S0	0.09 (95% CI [0.05, 0.12])	6.10 (95% CI [4.68, 7.53])	82.09 (95% CI [71.83, 92.34])	0.00 (95% CI [0.00, 0.00])
sand	S3	1.84 (95% CI [-0.17, 3.85])	1.71 (95% CI [0.48, 2.96])	17.38 (95% CI [5.67, 29.09])	0.42 (95% CI [0.38, 0.45])
sand	S5	1.19 (95% CI [0.94, 1.44])	4.47 (95% CI [2.64, 6.31])	49.30 (95% CI [27.91, 70.68])	0.39 (95% CI [0.28, 0.51])
sand	S10	0.75 (95% CI [0.41, 1.02])	3.35 (95% CI [1.17, 5.52])	52.55 (95% CI [28.82, 76.28])	0.00 (95% CI [0.00, 0.00])
sand	C0	0.09 (95% CI [0.05, 0.12])	6.10 (95% CI [4.68, 7.53])	82.09 (95% CI [71.83, 92.34])	0.00 (95% CI [0.00, 0.00])
sand	C3	0.47 (95% CI [0.30, 0.64])	3.52 (95% CI [-1.64, 8.68])	31.42 (95% CI [-8.15, 71.00])	7.23 (95% CI [5.60, 8.86])
sand	C5	0.66 (95% CI [0.08, 0.12])	2.36 (95% CI [0.50, 4.21])	21.13 (95% CI [1.19, 41.07])	-----
sand	C10	1.16 (95% CI [0.47, 1.84])	3.10 (95% CI [-0.01, 6.21])	23.48 (95% CI [-2.22, 49.19])	0.00 (95% CI [0.00, 0.00])
loam	S0	1.36 (95% CI [1.14, 1.57])	1.36 (95% CI [0.71, 2.00])	0.87 (95% CI [0.74, 0.99])	0.00 (95% CI [0.00, 0.00])
loam	S3	1.47 (95% CI [0.87, 2.07])	0.86 (95% CI [0.73, 1.00])	-----	11.81 (95% CI [10.46, 13.16])
loam	S5	1.22 (95% CI [0.83, 1.61])	1.18 (95% CI [0.93, 1.43])	0.00 (95% CI [0.00, 0.00])	13.31 (95% CI [10.92, 15.71])
loam	S10	1.21 (95% CI [0.40, 2.01])	0.68 (95% CI [0.31, 1.06])	0.61 (95% CI [0.15, 1.06])	14.02 (95% CI [12.77, 15.26])

Soil type	Incubation treatment	OH-BHI	CH-BHI	Carbonyl/carboxyl-BHI	SiO/AlOSi-BHI
loam	C0	1.36 (95% CI [1.14, 1.57])	1.36 (95% CI [0.71, 2.00])	0.87 (95% CI [0.74, 0.99])	0.00 (95% CI [0.00, 0.00])
loam	C3	1.08 (95% CI [1.07, 1.10])	0.86 (95% CI [0.73, 1.00])	0.64 (95% CI [0.34, 0.94])	11.60 (95% CI [10.57, 12.64])
loam	C5	1.31 (95% CI [0.89, 1.74])	1.18 (95% CI [0.93, 1.43])	-----	11.65 (95% CI [10.91, 12.39])
loam	C10	1.32 (95% CI [0.75, 1.90])	0.68 (95% CI [0.31, 1.06])	0.65 (95% CI [-0.62, 1.92])	7.99 (95% CI [2.42, 13.56])
Sterilized sand	S0	-----	6.73 (95% CI [5.96, 7.49])	65.25 (95% CI [56.19, 74.31])	3.35 (95% CI [1.85, 4.85])
Sterilized sand	S3	1.31 (95% CI [0.67, 1.97])	2.51 (95% CI [-0.52, 5.55])	20.84 (95% CI [-11.68, 53.36])	9.69 (95% CI [2.42, 16.96])
Sterilized sand	S5	0.61 (95% CI [0.32, 0.90])	5.80 (95% CI [4.83, 6.77])	58.27 (95% CI [50.16, 66.37])	0.00 (95% CI [0.00, 0.00])
Sterilized sand	S10	1.10 (95% CI [0.07, 2.14])	5.95 (95% CI [3.72, 8.18])	46.92 (95% CI [33.37, 60.47])	-----
Sterilized sand	C0	----- ---	6.73 (95% CI [5.96, 7.49])	65.25 (95% CI [56.19, 74.31])	3.35 (95% CI [1.85, 4.85])
Sterilized sand	C3	0.40 (95% CI [-0.07, 0.87])	4.28 (95% CI [2.83, 5.73])	50.26 (95% CI [34.03, 66.50])	0.00 (95% CI [0.00, 0.00])
Sterilized sand	C5	0.65 (95% CI [-1.56, 2.87])	2.97 (95% CI [1.23, 4.71])	30.26 (95% CI [10.32, 50.20])	-----
Sterilized sand	C10	1.89 (95% CI [0.44, 3.34])	2.55 (95% CI [2.08, 3.03])	12.22 (95% CI [8.95, 17.48])	1.16 (95% CI [0.82, 1.50])
Sterilized loam	S0	1.41 (95% CI [0.57, 2.25])	0.84 (95% CI [0.49, 1.19])	0.64 (95% CI [0.41, 0.88])	14.51 (95% CI [14.17, 14.85])

Soil type	Incubation treatment	OH-BHI	CH-BHI	Carbonyl/carboxyl-BHI	SiO/AlOSi-BHI
Sterilized loam	S3	1.02 (95% CI [0.62, 1.45])	0.97 (95% CI [0.80, 1.14])	-----	14.48 (95% CI [11.83, 17.13])
Sterilized loam	S5	1.03 (95% CI [0.45, 1.61])	0.75 (95% CI [0.48, 1.02])	0.57 (95% CI [0.50, 0.65])	14.20 (95% CI [12.14, 16.26])
Sterilized loam	S10	1.86 (95% CI [1.23, 2.50])	1.77 (95% CI [1.10, 2.44])	-----	11.78 (95% CI [10.74, 12.82])
Sterilized loam	C0	1.41 (95% CI [0.57, 2.25])	0.84 (95% CI [0.49, 1.19])	0.64 (95% CI [0.41, 0.88])	14.51 (95% CI [14.17, 14.85])
Sterilized loam	C3	2.47 (95% CI [1.35, 3.59])	1.48 (95% CI [0.51, 2.44])	1.01 (95% CI [0.79, 1.23])	10.88 (95% CI [8.28, 13.49])
Sterilized loam	C5	1.29 (95% CI [0.78, 1.79])	1.20 (95% CI [1.15, 1.25])	0.69 (95% CI [0.33, 1.06])	13.11 (95% CI [12.53, 13.69])
Sterilized loam	C10	1.15 (95% CI [0.62, 1.69])	1.10 (95% CI [0.49, 1.71])	-----	12.30 (95% CI [11.39, 13.21])