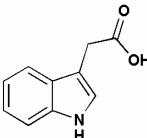
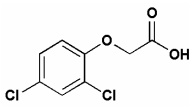
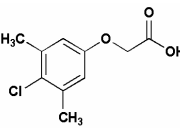
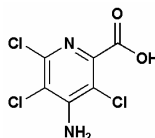
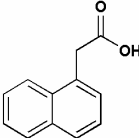


Table S4. Detailed physiochemical properties of auxins in their free acid form

Short Name	IAA	2,4-D	602-UC	Picloram	NAA
Chembridge ID			5617690		
Structure					
IUPAC Name	2-(1H-indol-3-yl)acetic acid	2-(2,4-dichlorophenoxy)acetic acid	2-(4-chloro-3,5-dimethylphenoxy)acetic acid	4-amino-3,5,6-trichloropyridine-2-carboxylic acid	2-(naphthalen-5-yl)acetic acid
MW	175.18	221.04	214.65	241.46	
Formula	C ₁₀ H ₉ NO ₂	C ₈ H ₆ Cl ₂ O ₃	C ₁₀ H ₁₁ ClO ₃	C ₆ H ₃ Cl ₃ N ₂ O ₂	C ₁₂ H ₁₀ O ₂
pK _a 's	4.66 (CO ₂ H)	2.80 (CO ₂ H)	3.56 (CO ₂ H)	16.23 (NH ₂)	4.75 (CO ₂ H)
	16.19 (NH)			3.98 (CO ₂ H)	
				-0.21 (Pyr N)	
				-1.91 (NH)	
clog P	1.76	2.37	2.79	1.79	2.68
clog D	1.28 (pH 5.0)	0.19 (pH 5.0)	1.33 (pH 5.0)	0.72 (pH 5.0)	2.24 (pH 5.0)
	0.88 (pH 5.5)	-0.28 (pH 5.5)	0.85 (pH 5.5)	0.25 (pH 5.5)	1.86 (pH 5.5)
	0.42 (pH 6.0)	-0.70 (pH 6.0)	0.37 (pH 6.0)	-0.24 (pH 6.0)	1.41 (pH 6.0)
	-0.06 (pH 6.5)	-1.01 (pH 6.5)	-0.08 (pH 6.5)	-0.71 (pH 6.5)	0.93 (pH 6.5)
	-0.54 (pH 7.0)	-1.19 (pH 7.0)	-0.46 (pH 7.0)	-1.15 (pH 7.0)	0.44 (pH 7.0)
	-1.00 (pH 7.5)	-1.27 (pH 7.5)	-0.70 (pH 7.5)	-1.51 (pH 7.5)	-0.02 (pH 7.5)
H-Bond Donor	2	1	1	2	1
H-Bond Acceptor	2	5	4	7	2