

Hordenine cv Solist - Report

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Adsorbimento

Langmuir

```
##
## Formula: Y ~ Q * b * X / (1 + b * X)
##
## Parameters:
##      Estimate Std. Error t value Pr(>|t|)
## Q 9.5242351   7.6177461    1.25   0.232
## b 0.0008688   0.0007896    1.10   0.290
##
## Residual standard error: 0.0696 on 14 degrees of freedom
##
## Algorithm "port", convergence message: relative convergence (4)
```

Sigmoidal Langmuir

```
##
## Formula: Y ~ Q * b * X / (1 + b * X + s/X)
##
## Parameters:
##      Estimate Std. Error t value Pr(>|t|)
## Q 10.5441460   9.7792422    1.078   0.301
## b  0.0007712   0.0008029    0.960   0.354
## s -0.5348174   0.6217583   -0.860   0.405
##
## Residual standard error: 0.0714 on 13 degrees of freedom
##
## Algorithm "port", convergence message: relative convergence (4)
```

Freundlich

```
##
## Formula: Y ~ K * (X)^(1/n)
##
## Parameters:
##      Estimate Std. Error t value Pr(>|t|)
## K  0.01325     0.00372    3.561 0.00313 **
## n  1.13633     0.07250   15.673 2.84e-10 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.06443 on 14 degrees of freedom
##
## Algorithm "port", convergence message: relative convergence (4)
```

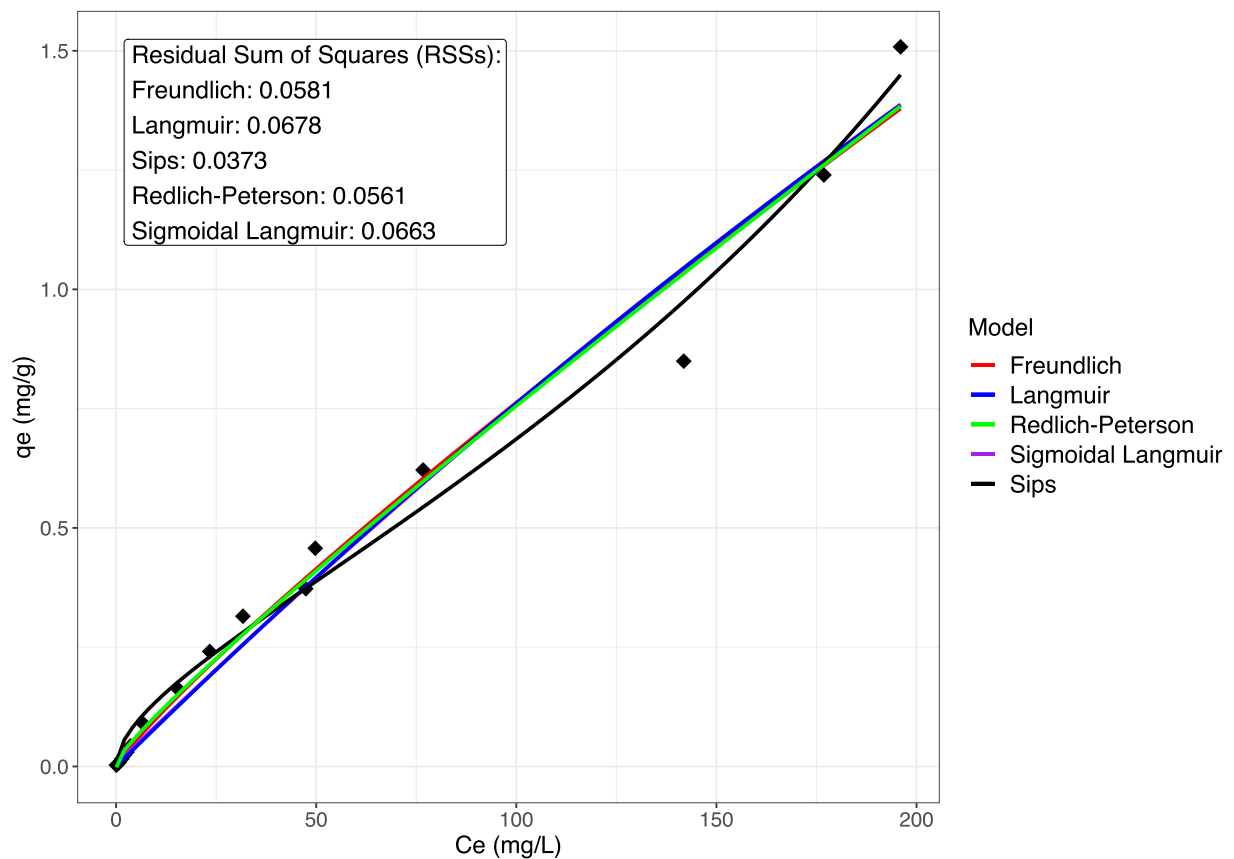
Sips

```
##
## Formula: Y ~ (Ks * (X)^Bs)/(1 + as * (X)^Bs)
##
## Parameters:
##      Estimate Std. Error t value Pr(>|t|)
## Ks   0.03638    0.01236   2.943  0.01143 *
## Bs   0.50791    0.13301   3.819  0.00213 **
## as  -0.04341    0.04012  -1.082  0.29891
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.05355 on 13 degrees of freedom
##
## Algorithm "port", convergence message: relative convergence (4)
```

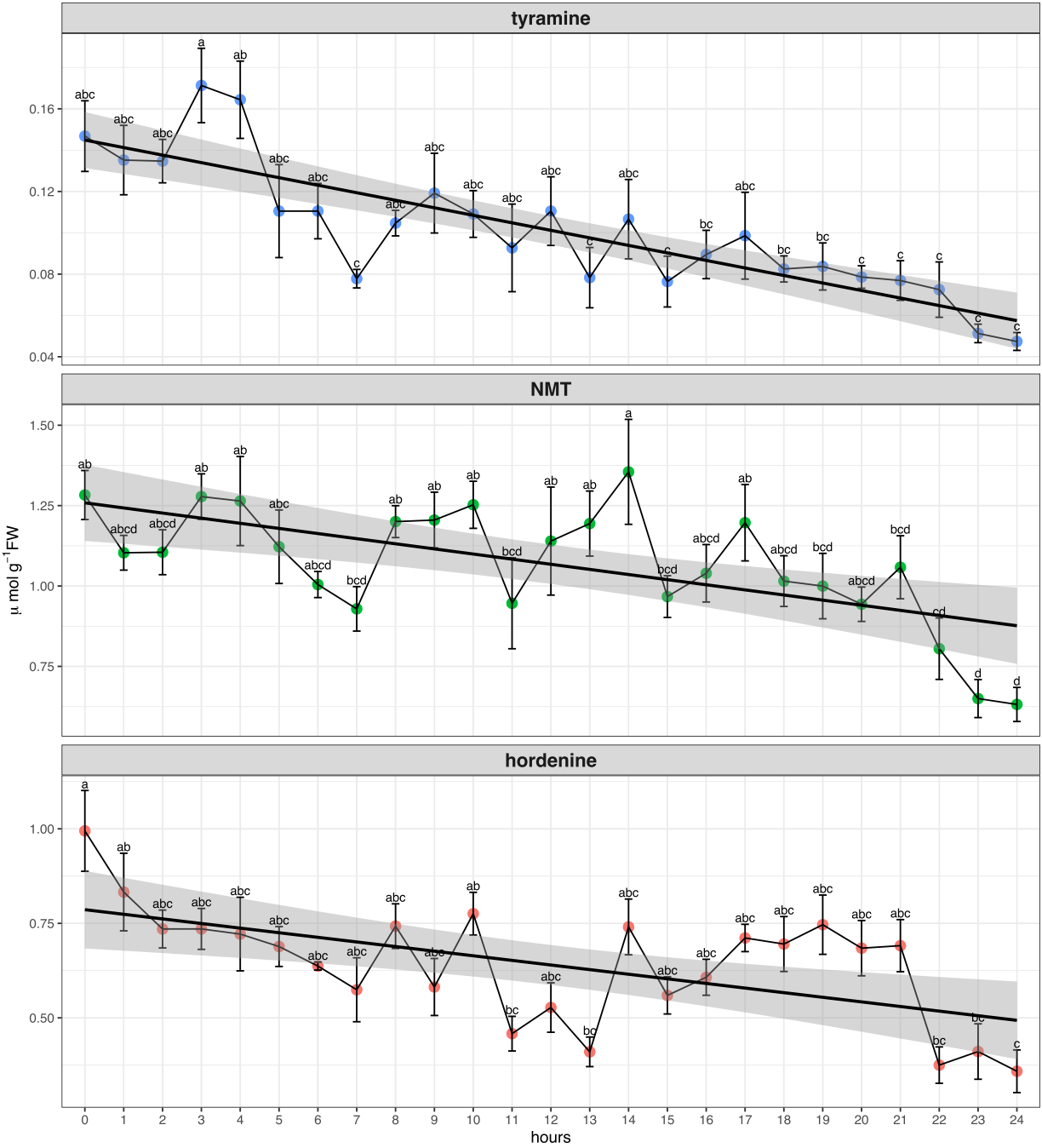
Redlich

```
##
## Formula: Y ~ Kr * X/(1 + ar * (X)^g)
##
## Parameters:
##      Estimate Std. Error t value Pr(>|t|)
## Kr   0.004104    0.006192   0.663  0.51908
## g   -0.129146    0.377059  -0.343  0.73744
## ar  -0.828002    0.179205  -4.620  0.00048 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.0657 on 13 degrees of freedom
##
## Algorithm "port", convergence message: relative convergence (4)
```

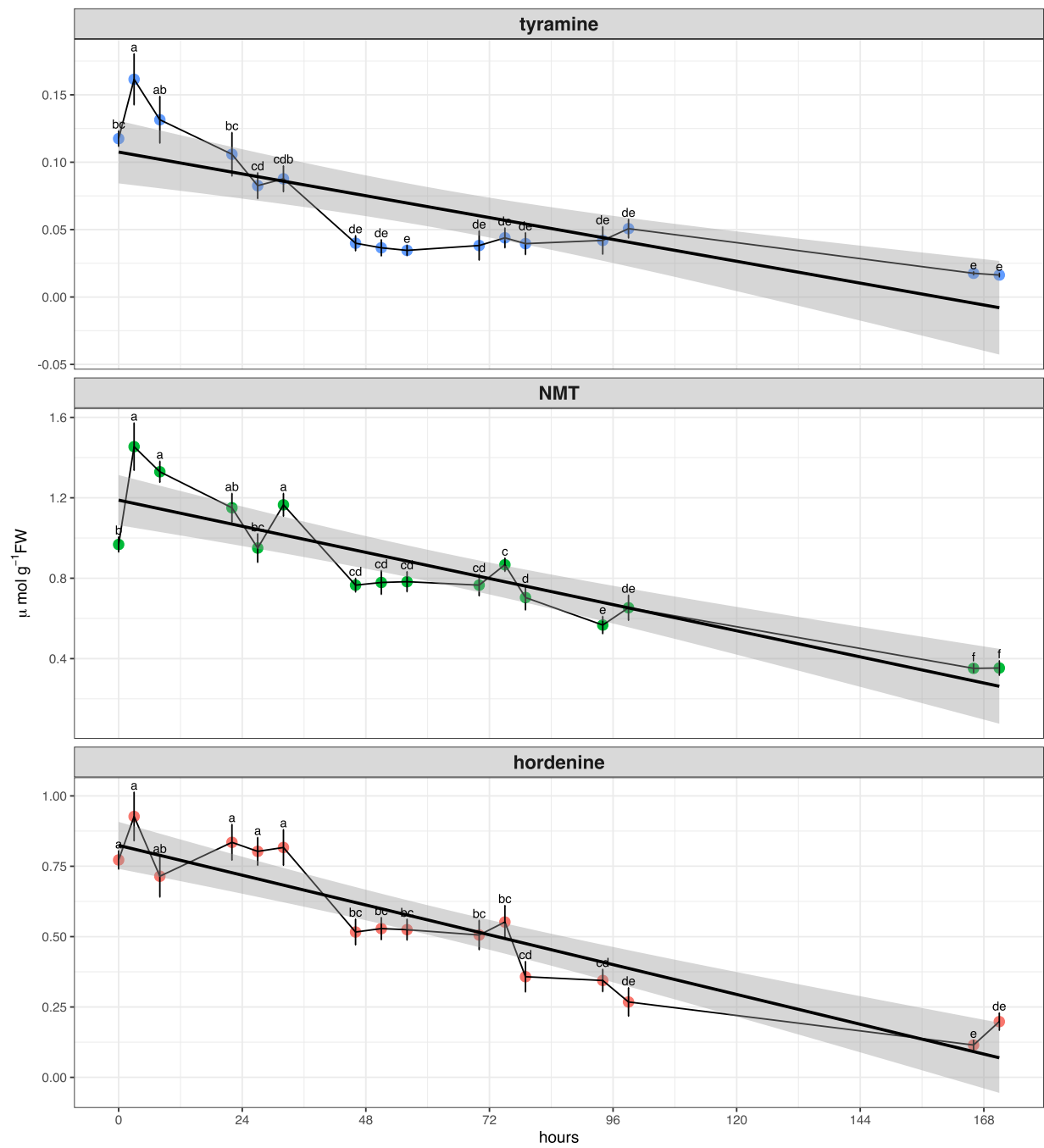
Adsorption isotherms plot



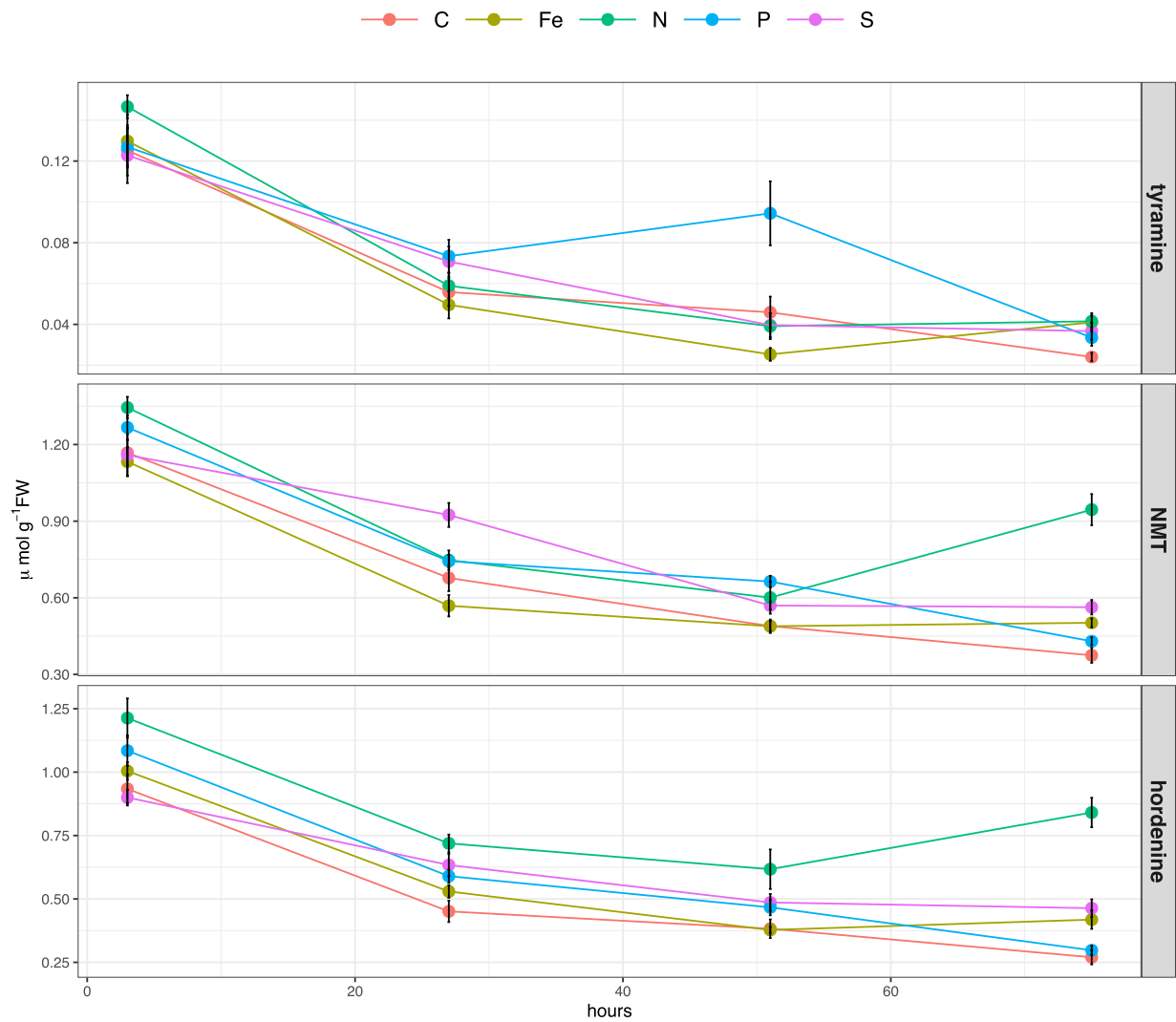
Time Course 24h



Time Course 8 days

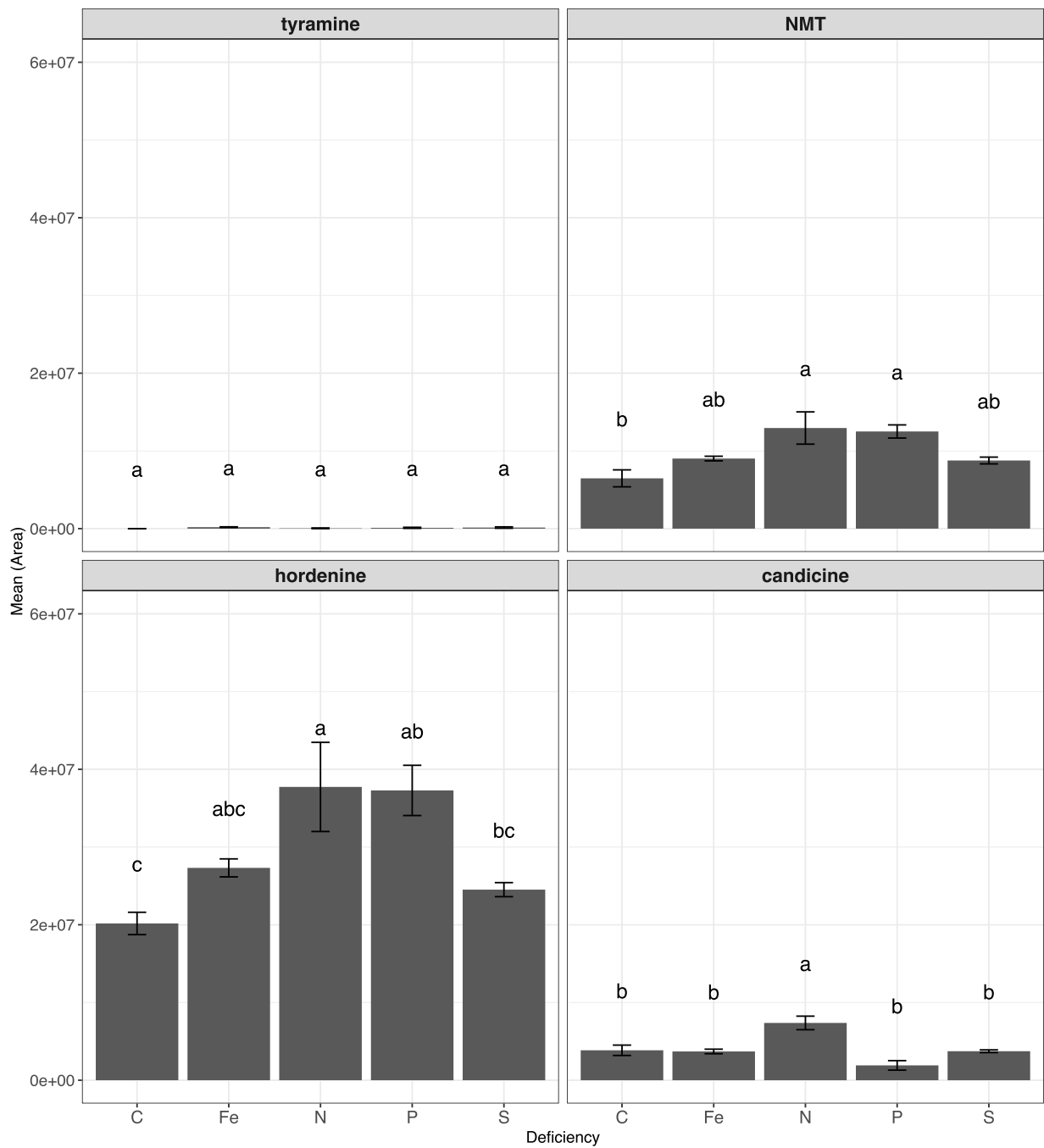


Time Course in Nutrients Deficiency



Tyramine					NMT					Hordenine				
	3h	27h	51h	75h		3h	27h	51h	75h		3h	27h	51h	75h
	P=0.595	P<0.089	P<0.001	P<0.001		P=0.118	P<0.001	P<0.001	P<0.001		P=0.015	P<0.001	P<0.001	P<0.001
C	a	ab	b	b	C	ab	bc	b	d	C	bc	d	b	c
-Fe	a	b	b	a	-Fe	b	c	b	bc	-Fe	bc	cd	b	b
-S	a	a	b	a	-S	b	a	ab	b	-S	c	ab	b	b
-N	a	ab	b	a	-N	a	b	a	a	-N	a	a	a	a
-P	a	a	a	ab	-P	ab	b	a	bc	-P	ab	bc	b	c

Targeted metabolomic of Time Course in Nutrients Deficiency



Untargeted metabolomic (Fold Change Biosynthesis) of Time Course in Nutrients Deficiency

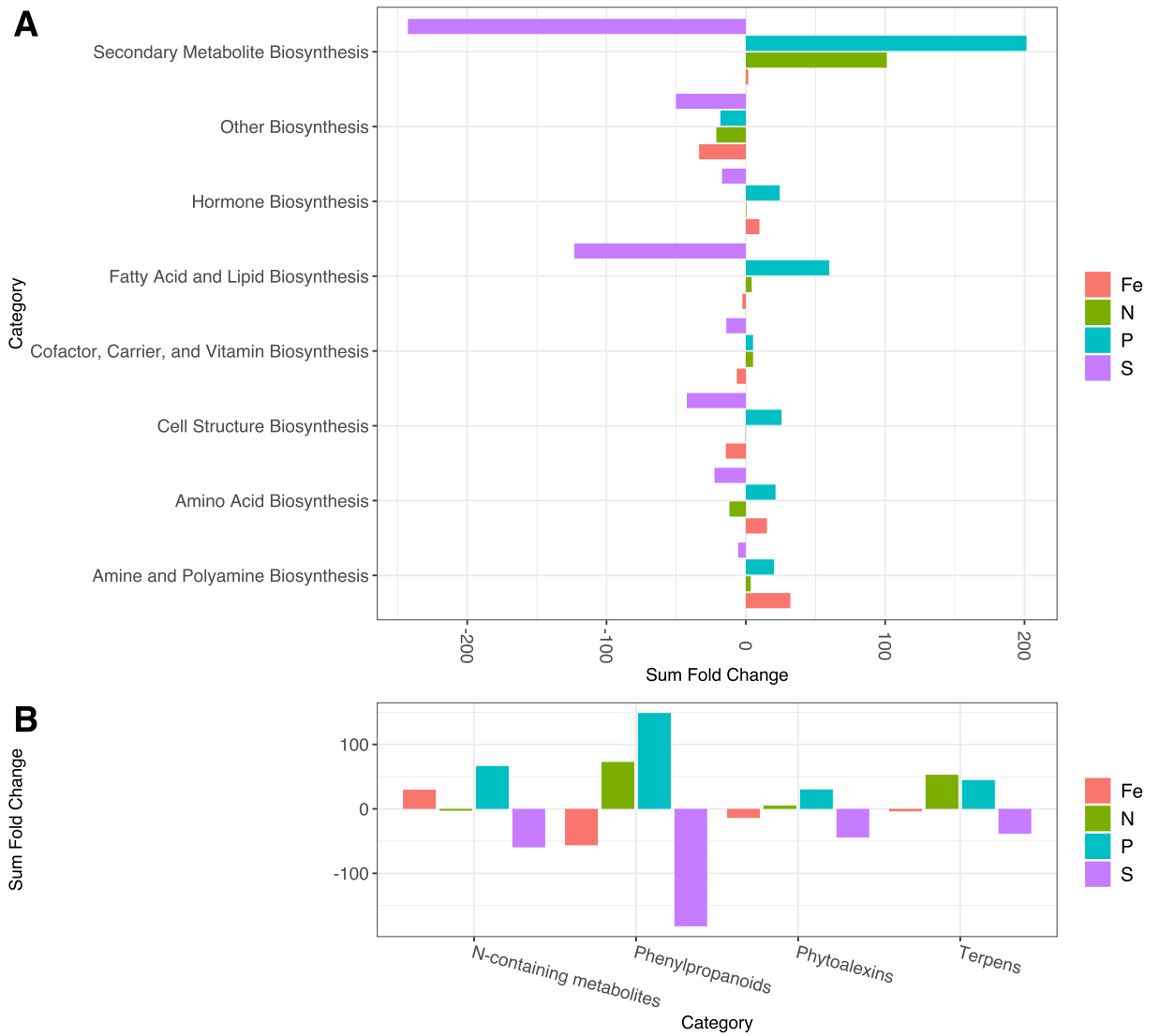


Table - Root Exudates

Days	Tyramine (nmol g ⁻¹)	N-methyltyramine (nmol g ⁻¹)	Hordenine (nmol g ⁻¹)
0	11.4 (± 0.64)	83.85 (± 8.57)	102.55 (± 10.22)
3	0.11 (± 0.01)	1.38 (± 0.09)	1.23 (± 0.22)