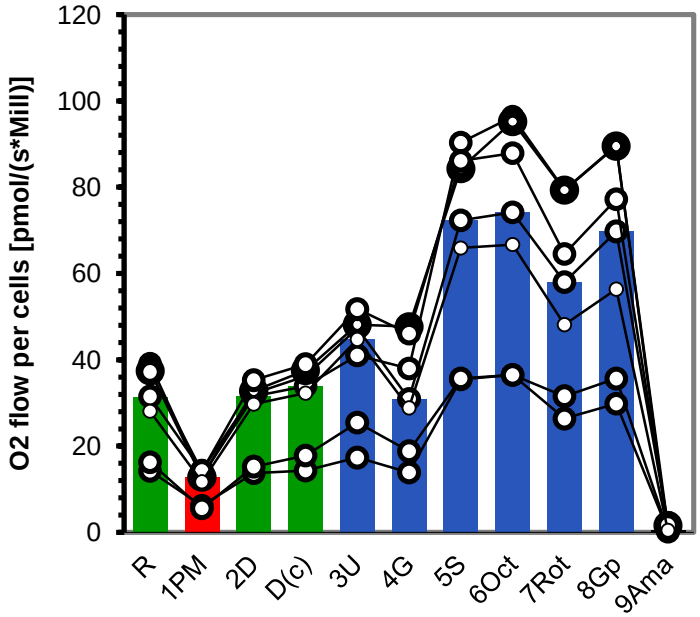
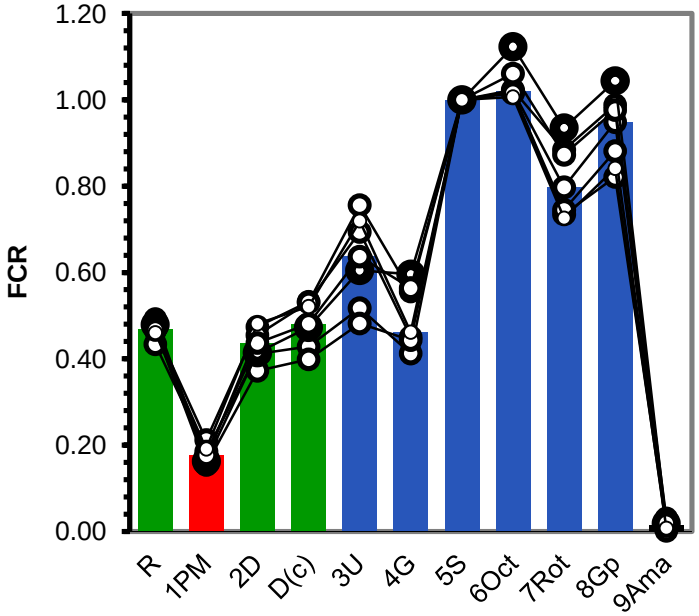
# IOC115 results. Summary

# IOC115 – Results (permeabilized cells)

**RP1**

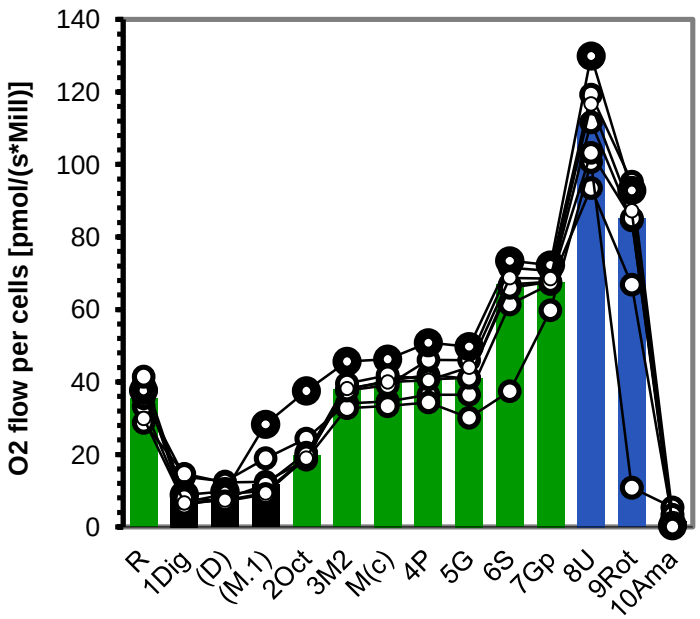


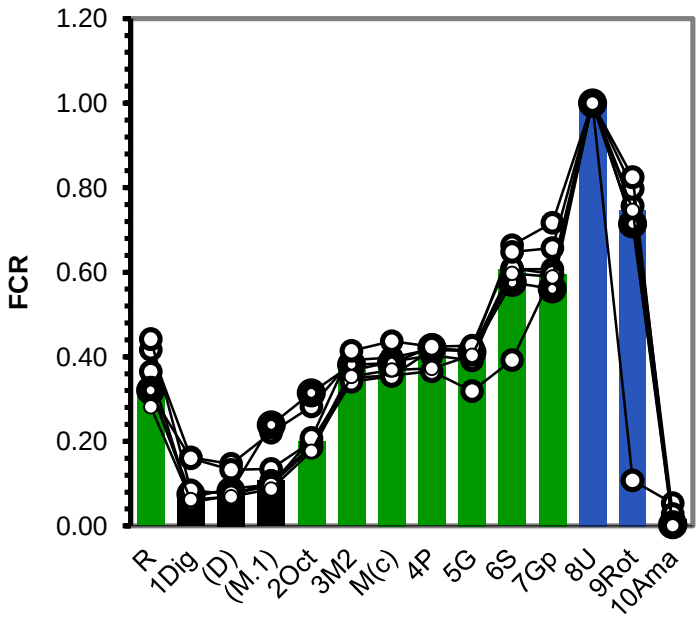




Bars show the median of seven experiments derived from 2 samples. Each point represents an individual measurement in one O2k chamber.

# IOC115 – Results (permeabilized cells)

**RP2**

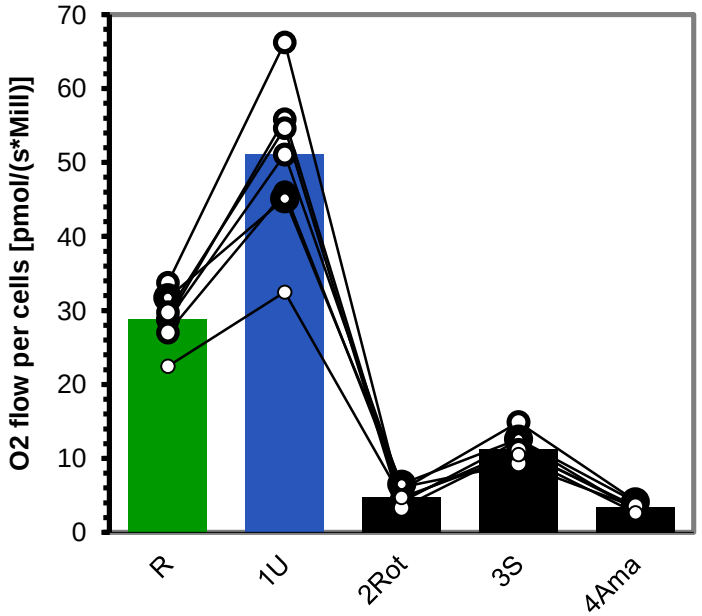


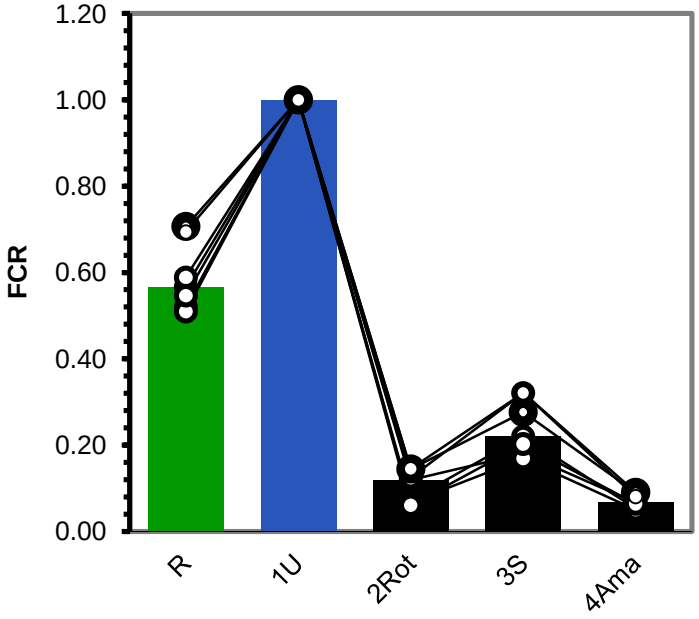




Bars show the median of seven experiments derived from 2 samples. Each point represents an individual measurement in one O2k chamber.

# IOC115 – Results (intact cells)

**CCP(S)_R1**



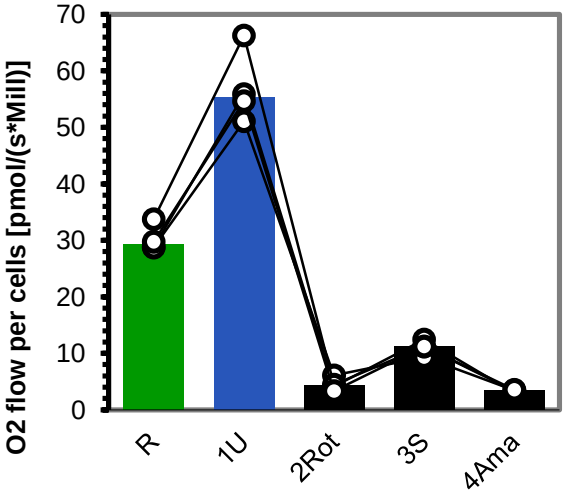



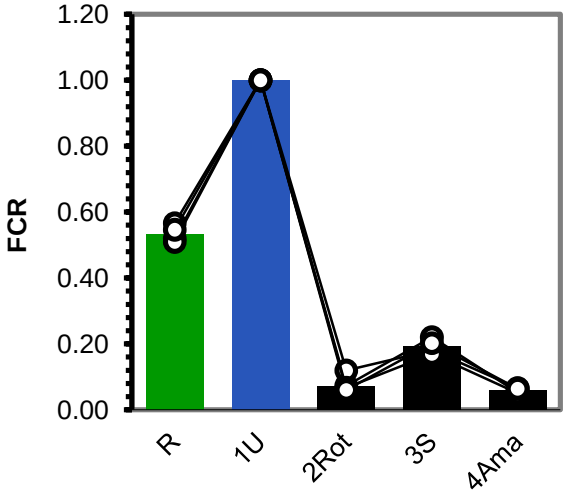

Bars show the median of seven experiments derived from 2 samples. Each point represents an individual measurement in one O2k chamber.

# IOC115 – Results (intact cells)

**CCP(S)_R1**

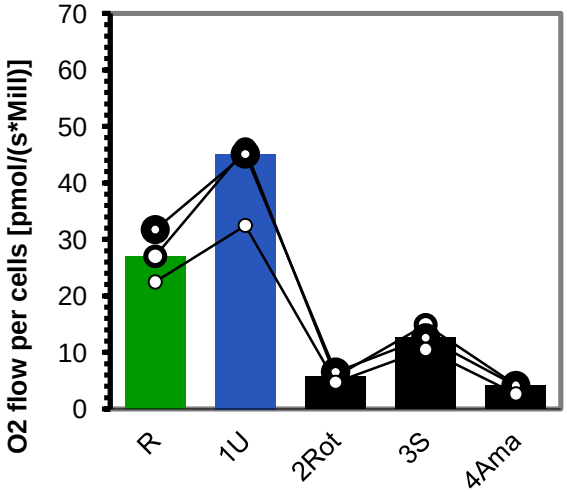
**DMEM**

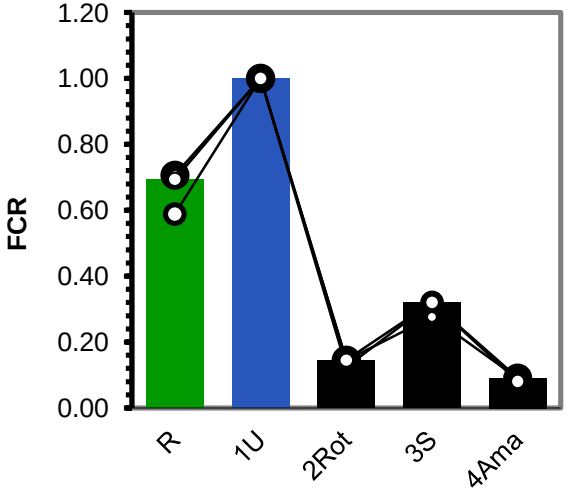



*No fluorescence*

**DMEM no phenol red (PhR)**

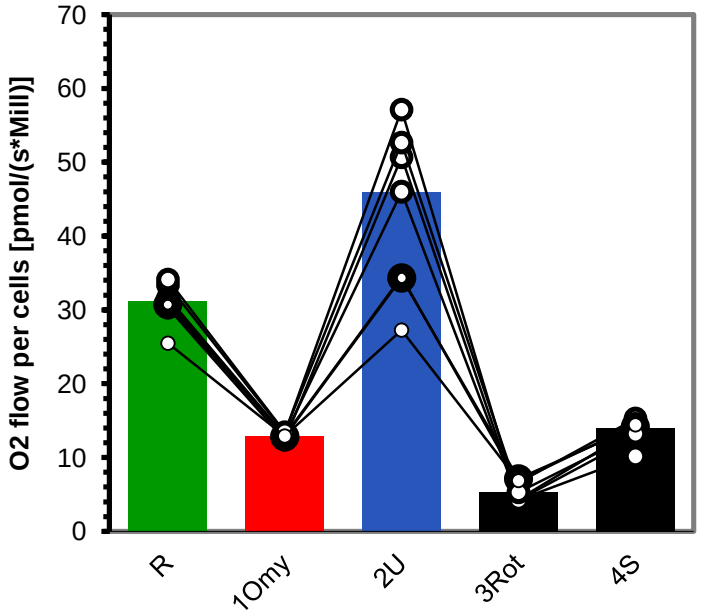


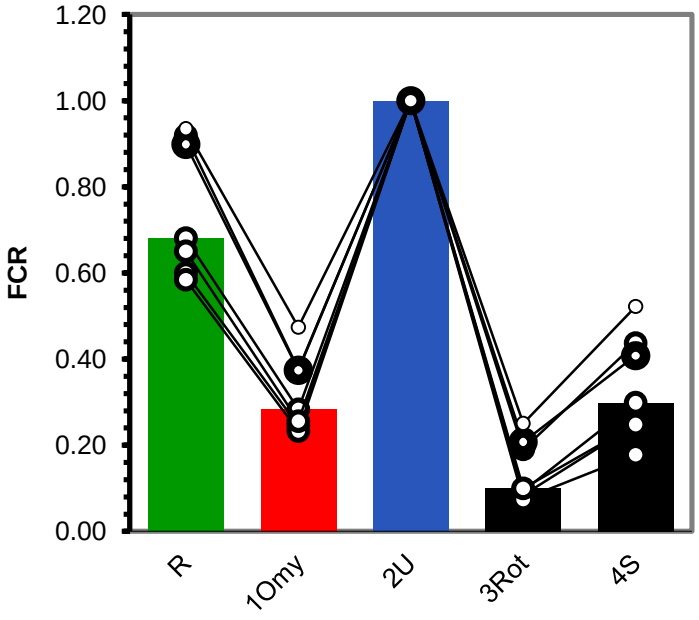




*Fluorescence*

# IOC115 – Results (intact cells)

**CCP(S)_R2**



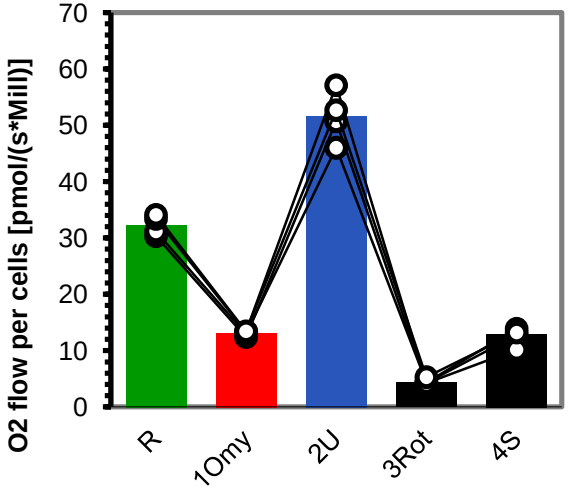



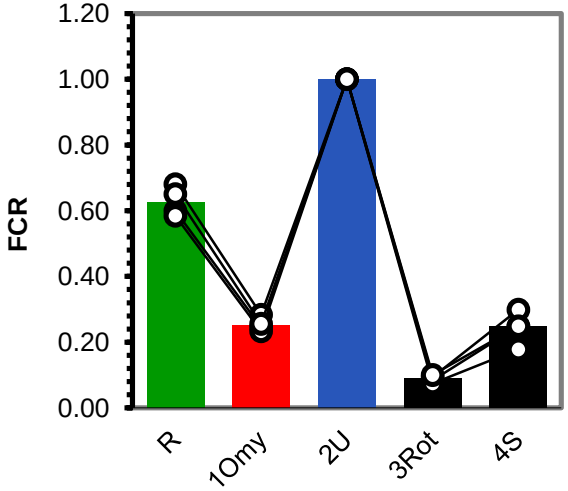

Bars show the median of seven experiments derived from 2 samples. Each point represents an individual measurement in one O2k chamber.

# IOC115 – Results (intact cells)

**CCP(S)_R2**

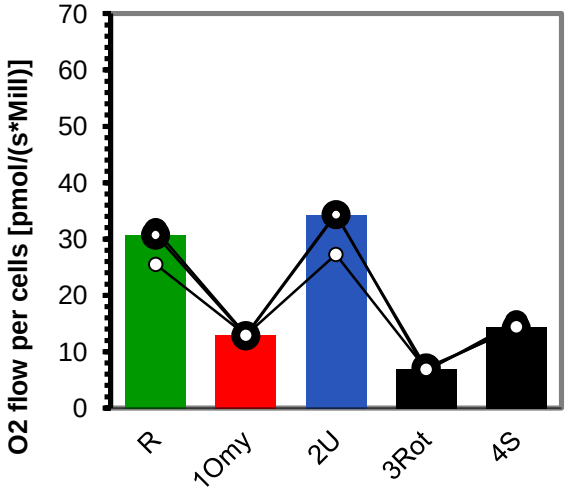
**DMEM**

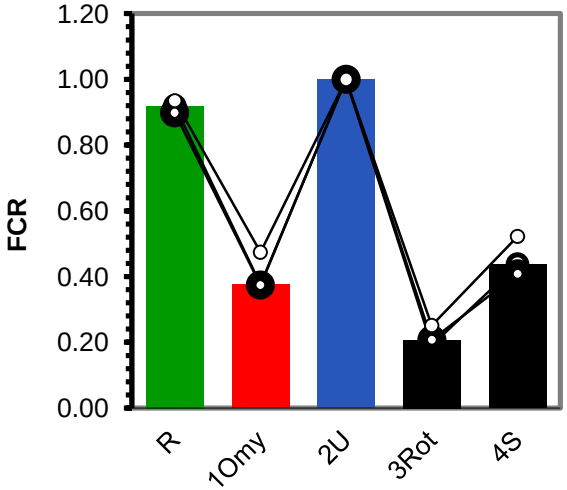



*No fluorescence*

**DMEM no phenol red (PhR)**

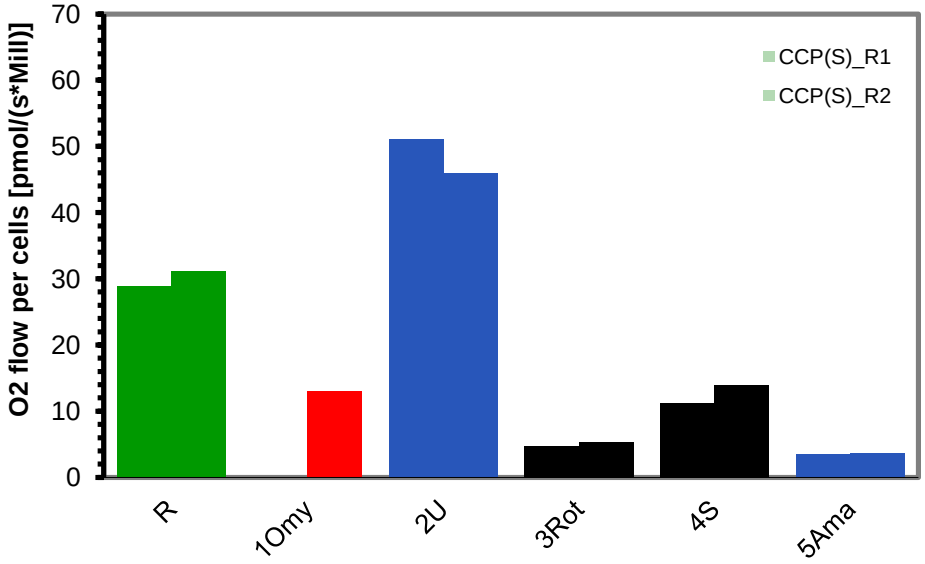



*Fluorescence*

# IOC115 – Results (intact cells)

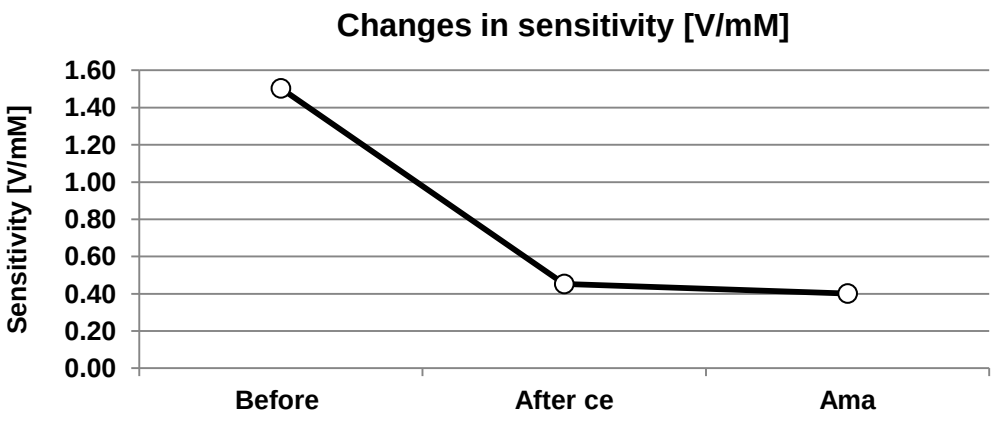
**Effect of Omy on ETS capacity**

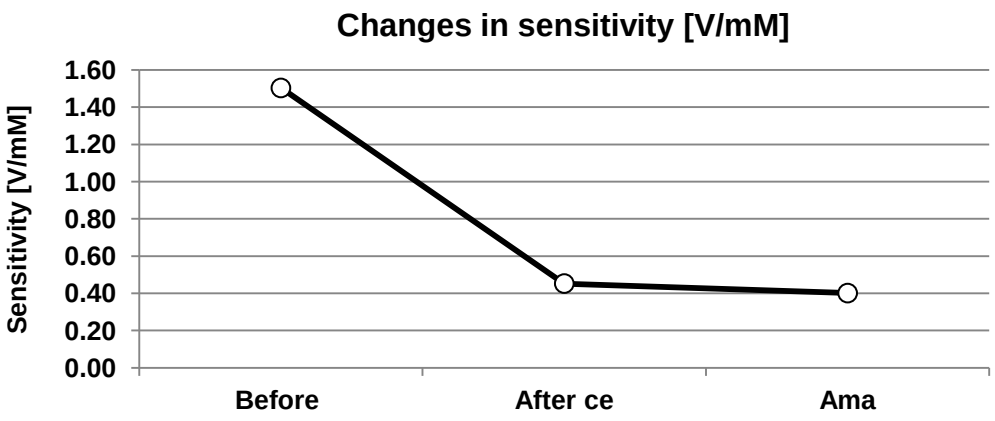


# *Results: Mitochondrial respiration and H2O2 production in intact cells*

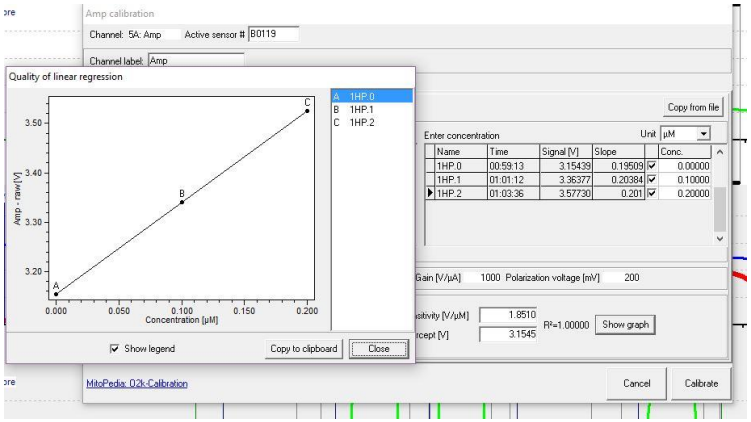
# IOC115 – Results (intact cells) – ROS production

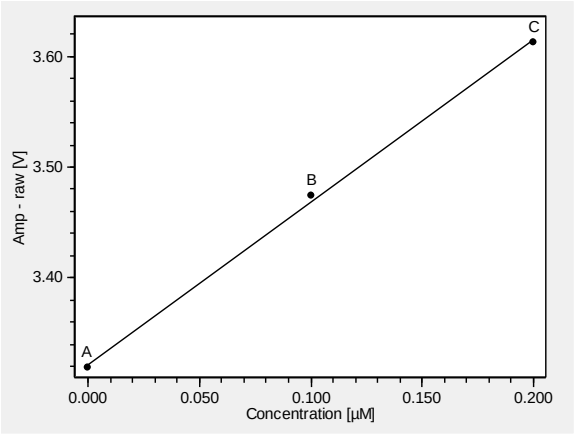
Sensitivity changes



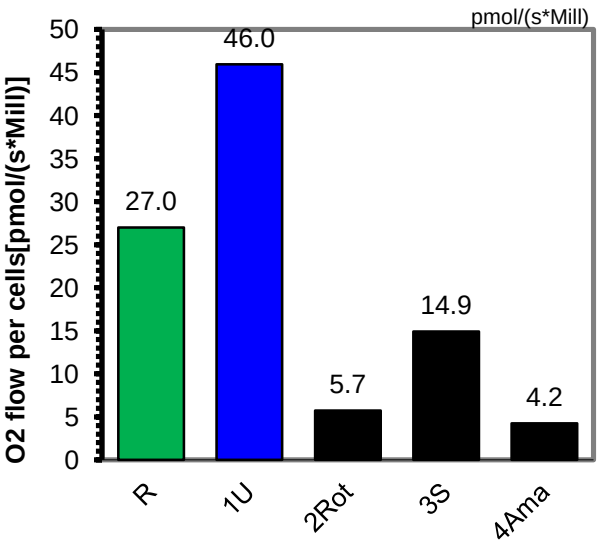

Quality of linear regression ($H_2O_2$ titrations)

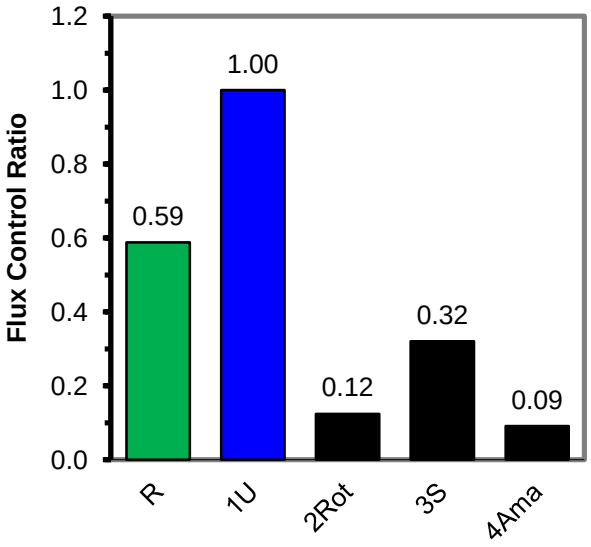


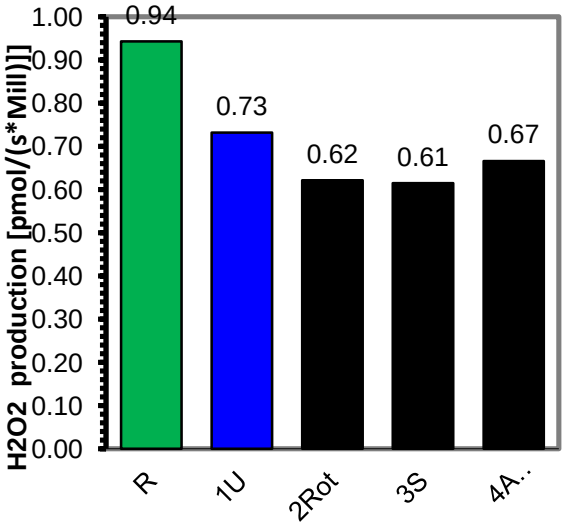



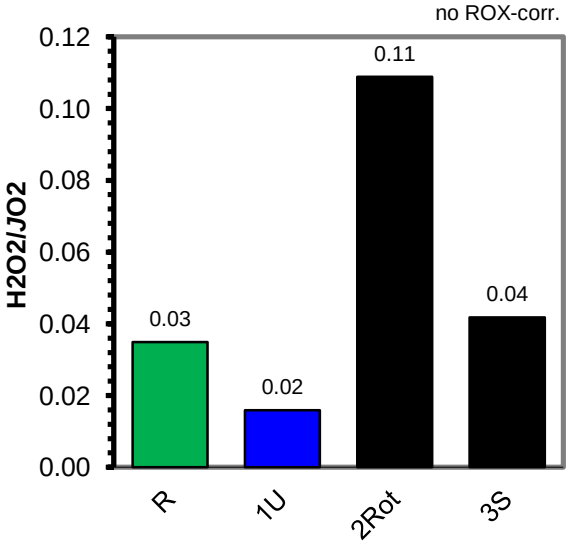
# IOC115 – Results (intact cells) – ROS production

## P4



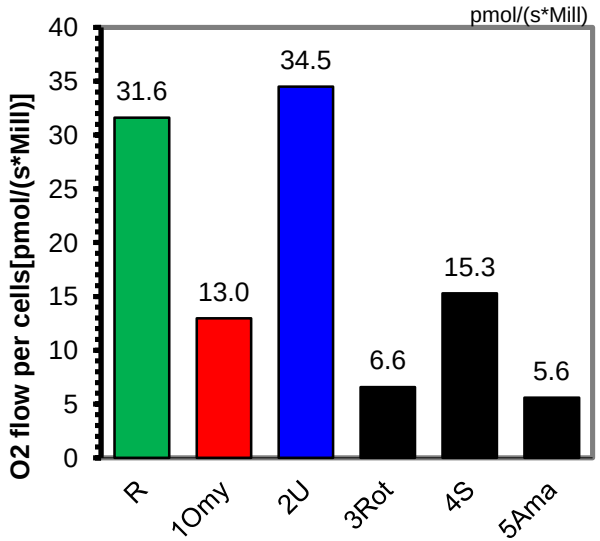



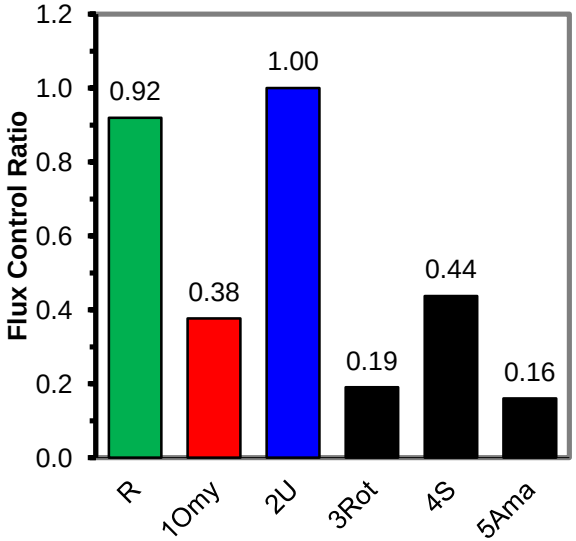



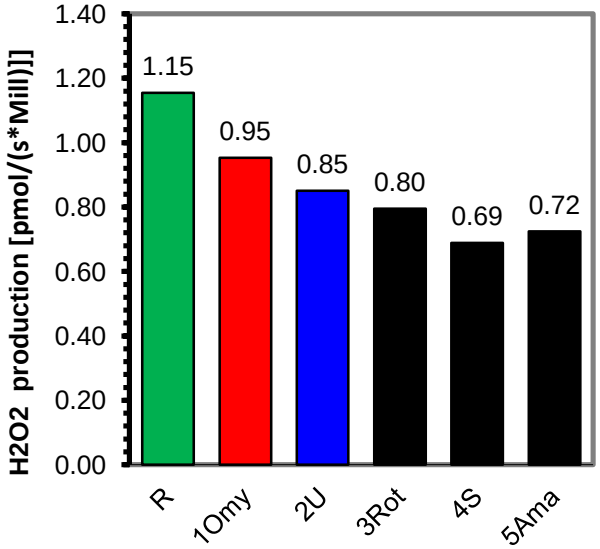



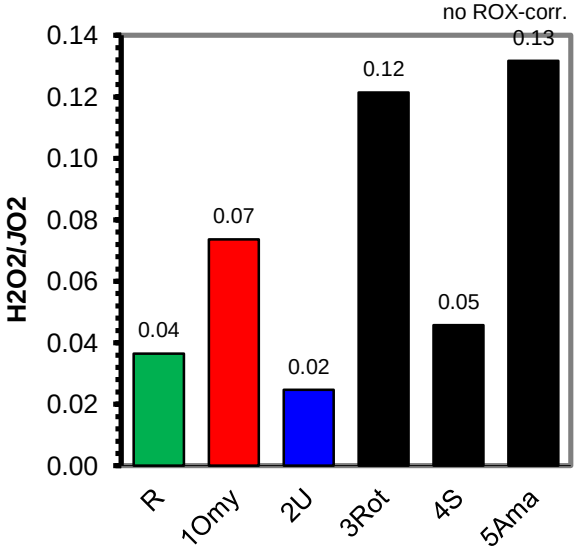
# IOC115 – Results (intact cells) – ROS production

## P4



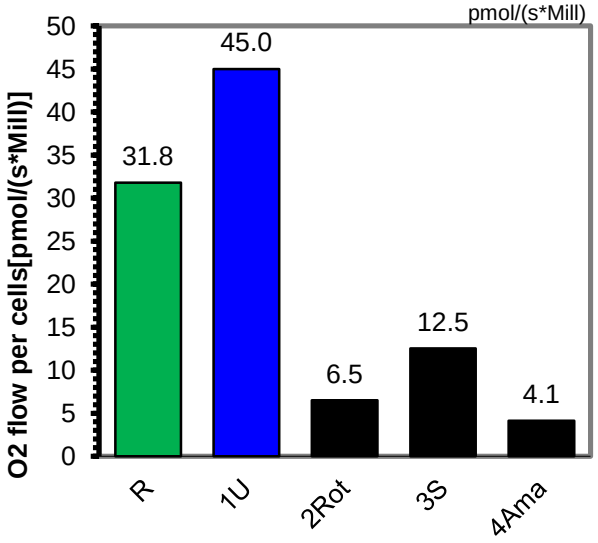



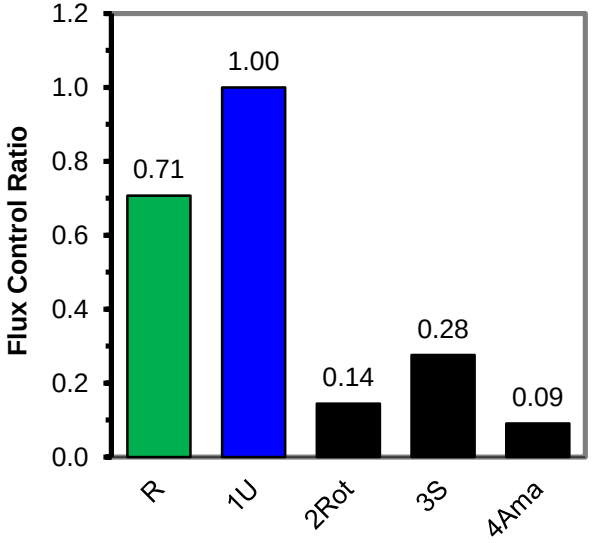



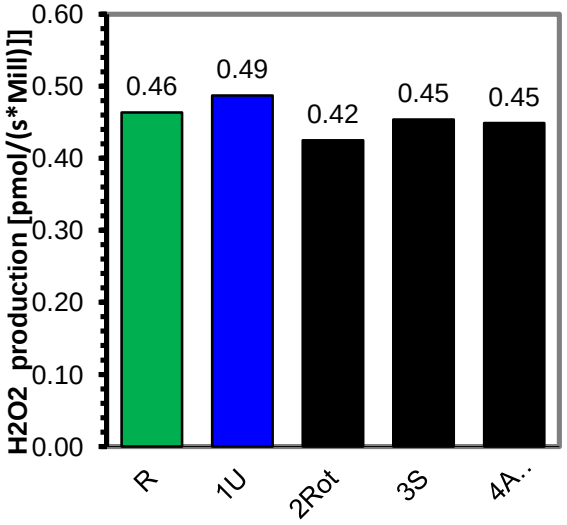



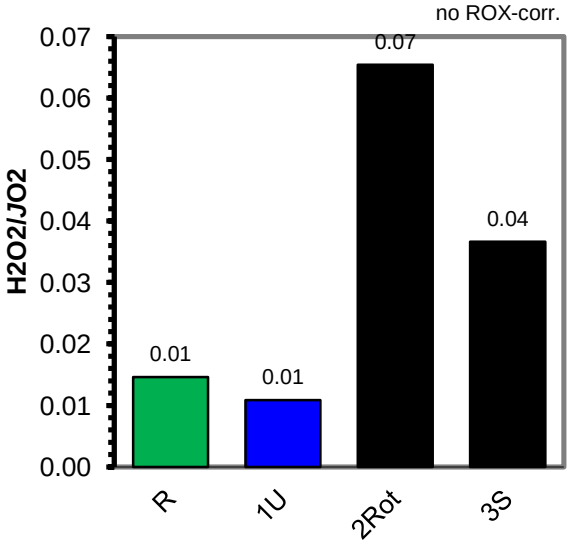
# IOC115 – Results (intact cells) – ROS production

## P5



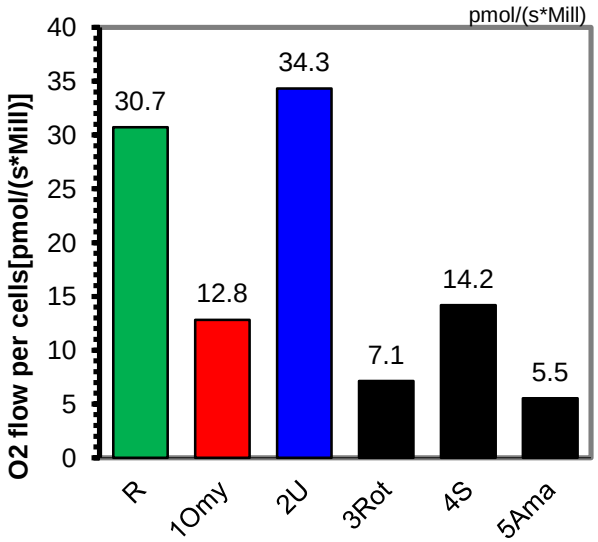



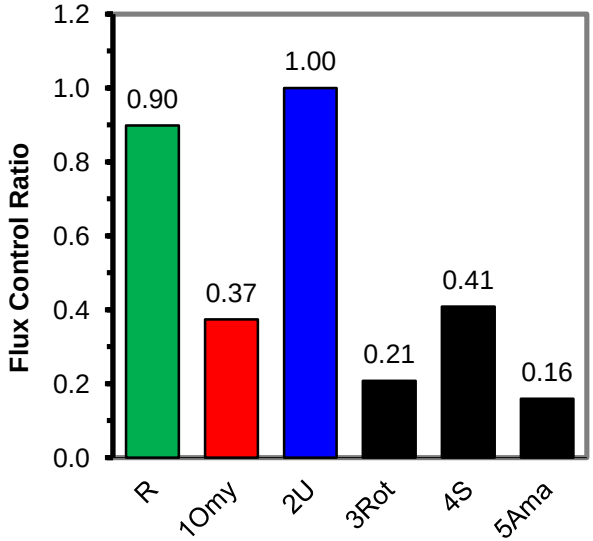



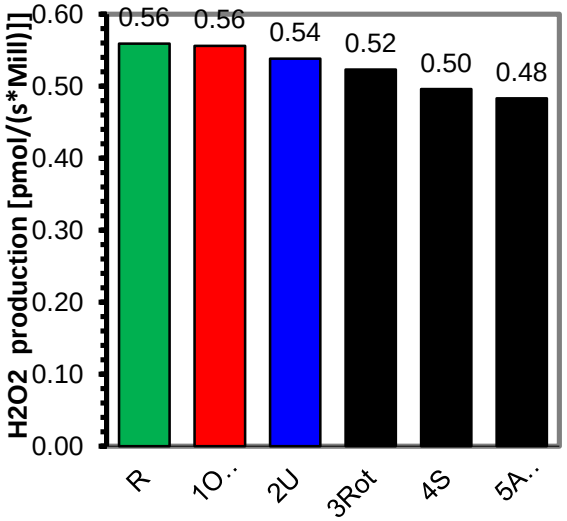



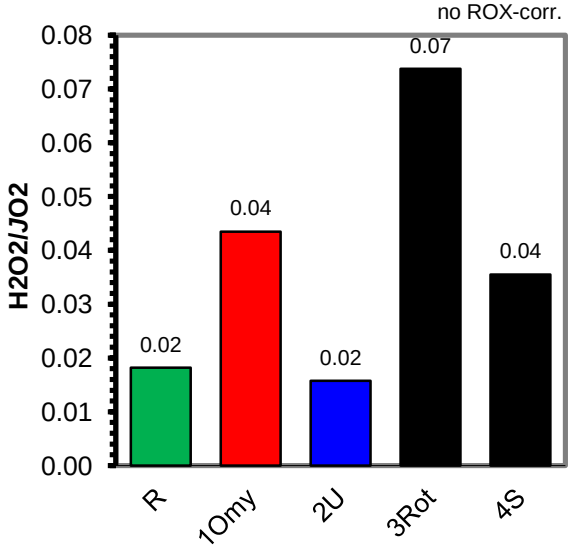
# IOC115 – Results (intact cells) – ROS production

## P5



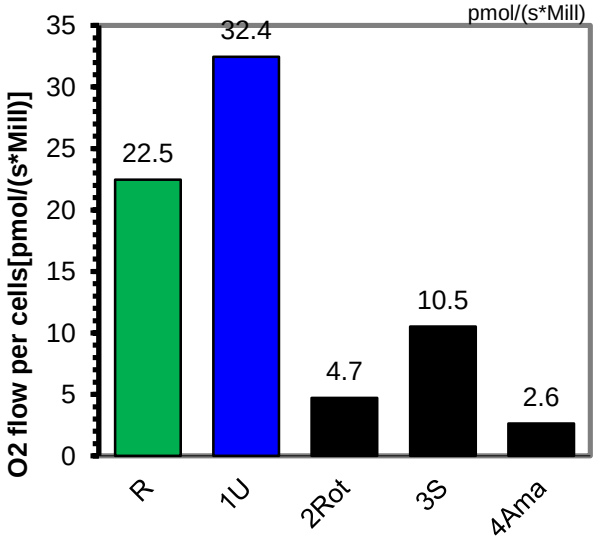



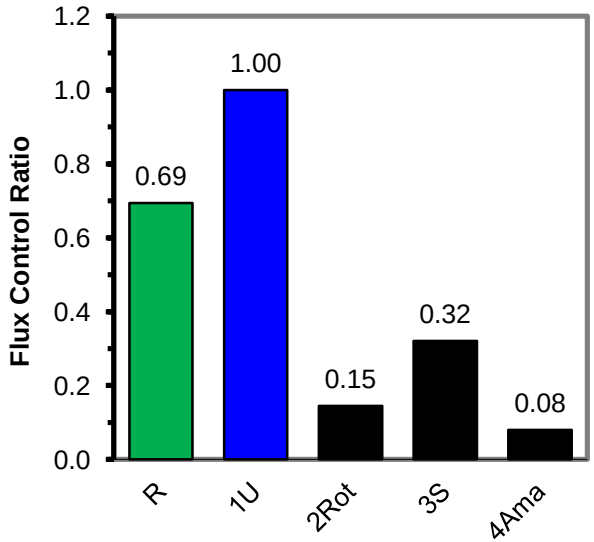



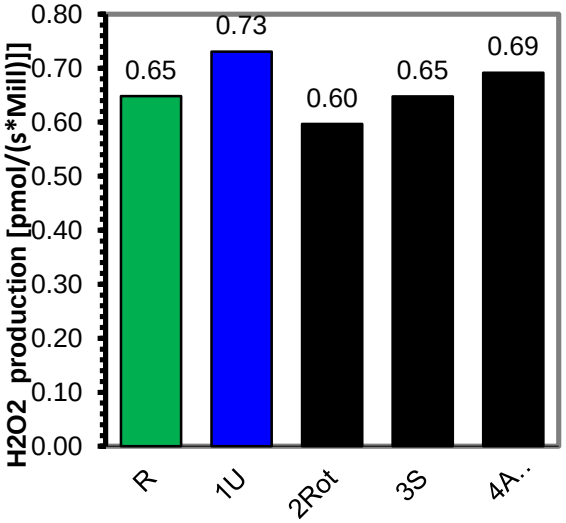



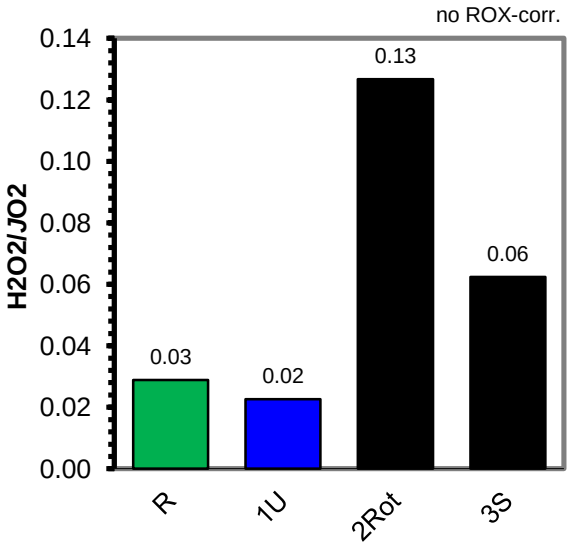
# IOC115 – Results (intact cells) – ROS production

## P7



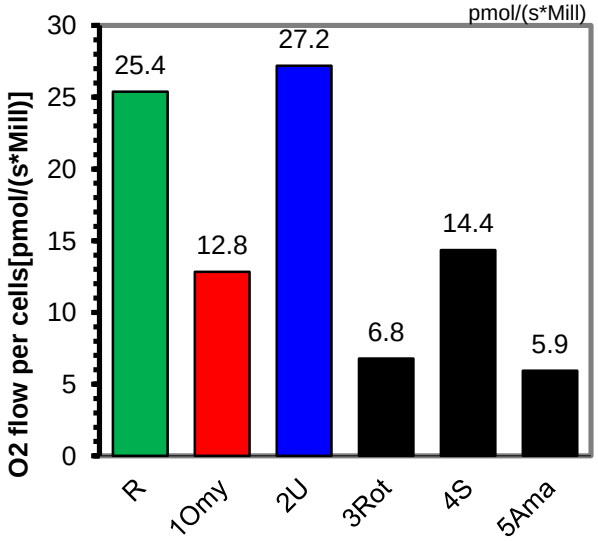



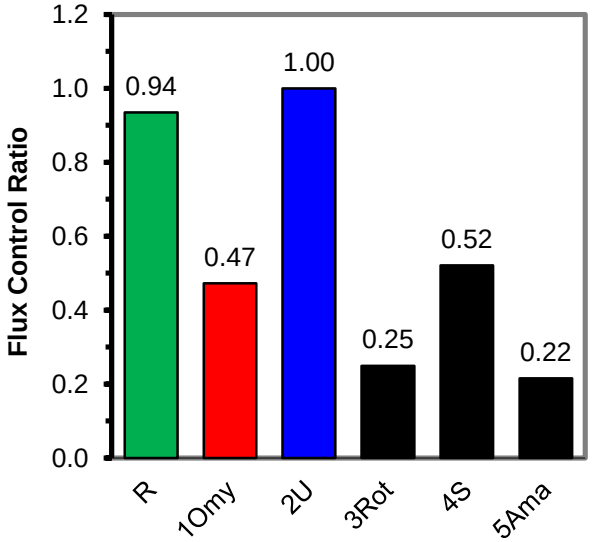



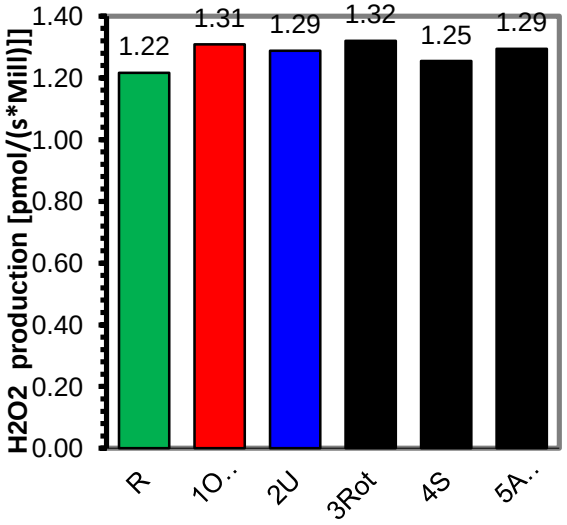



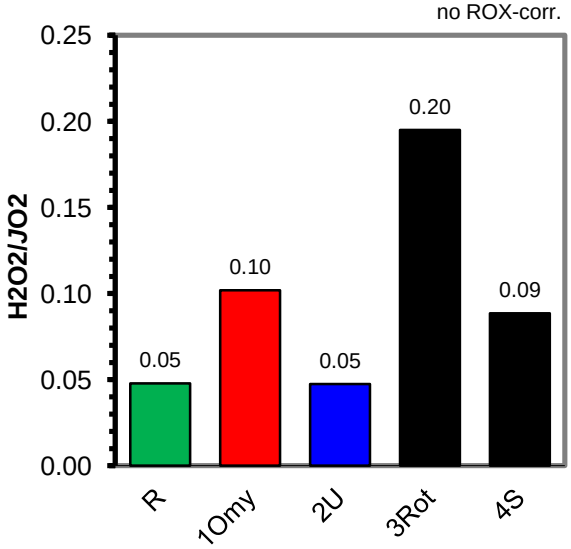
# IOC115 – Results (intact cells) – ROS production

## P7



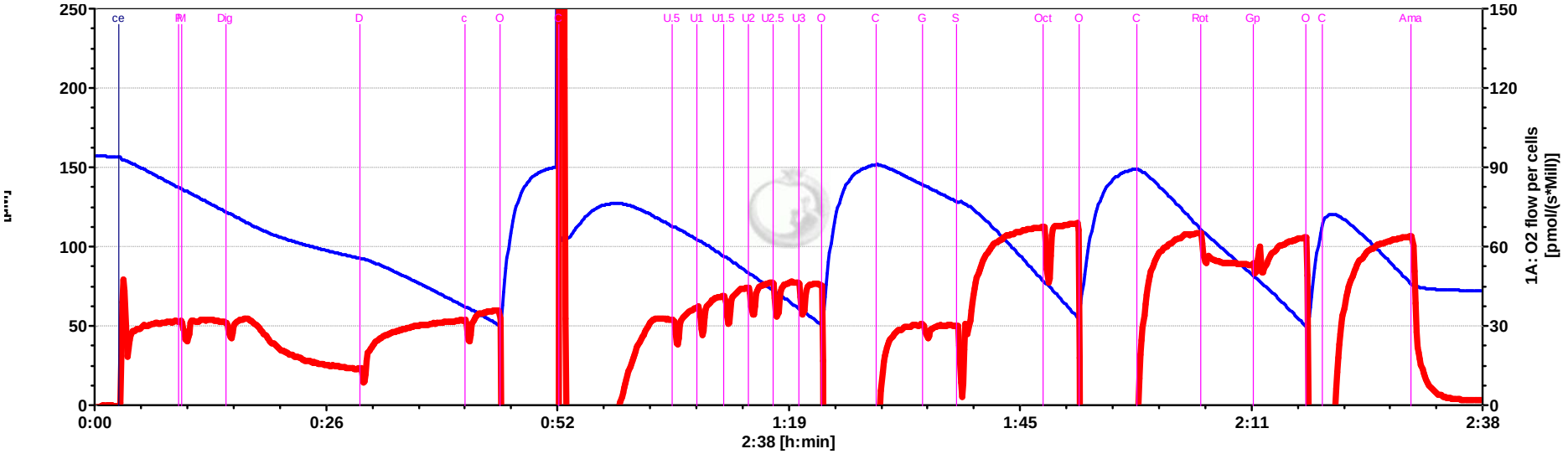



# *O2k traces*

# Permeabilized cells (HEK293T)

# P1

## RP1


ce
IM
Dig
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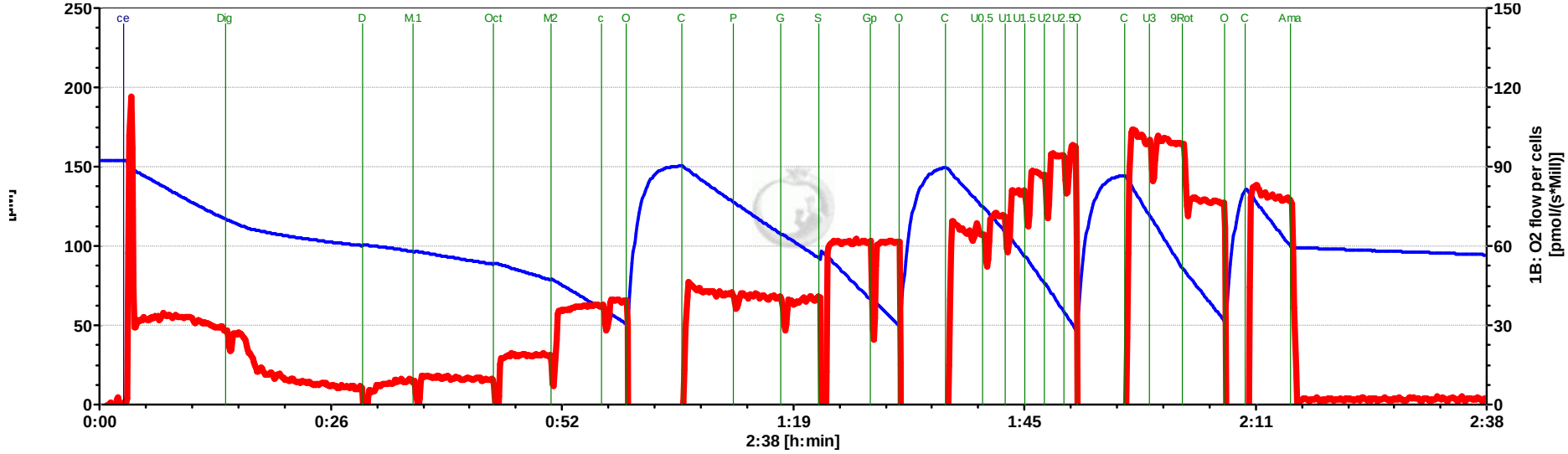
c
O
U.5
U1
U1.5
U2
U2.5
U3
O
C
G
S
Oct
O
C
Rot
Gp
O
C
Ama
250
200
150
100
50
0
150
120
90
60
30
0
0:00
0:26
0:52
1:19
1:45
2:11
2:38
2:38 [h:min]
1A: O2 flow per cells
[pmol/(s*Mill)]

## RP2


ce
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M.1
Oct
M2
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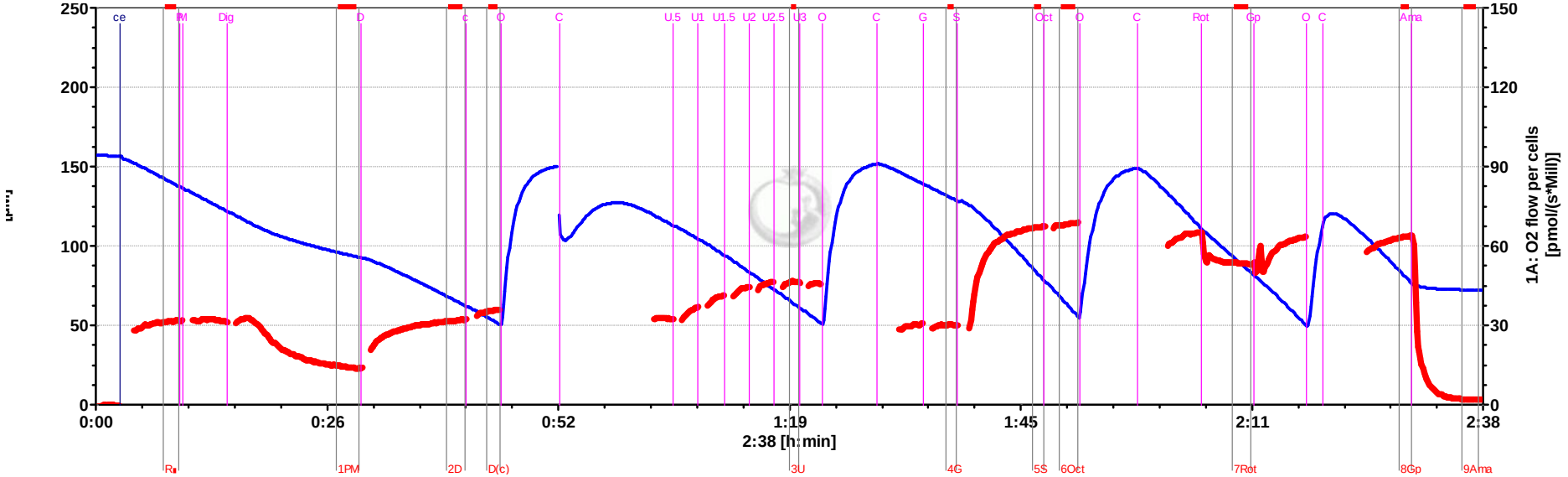
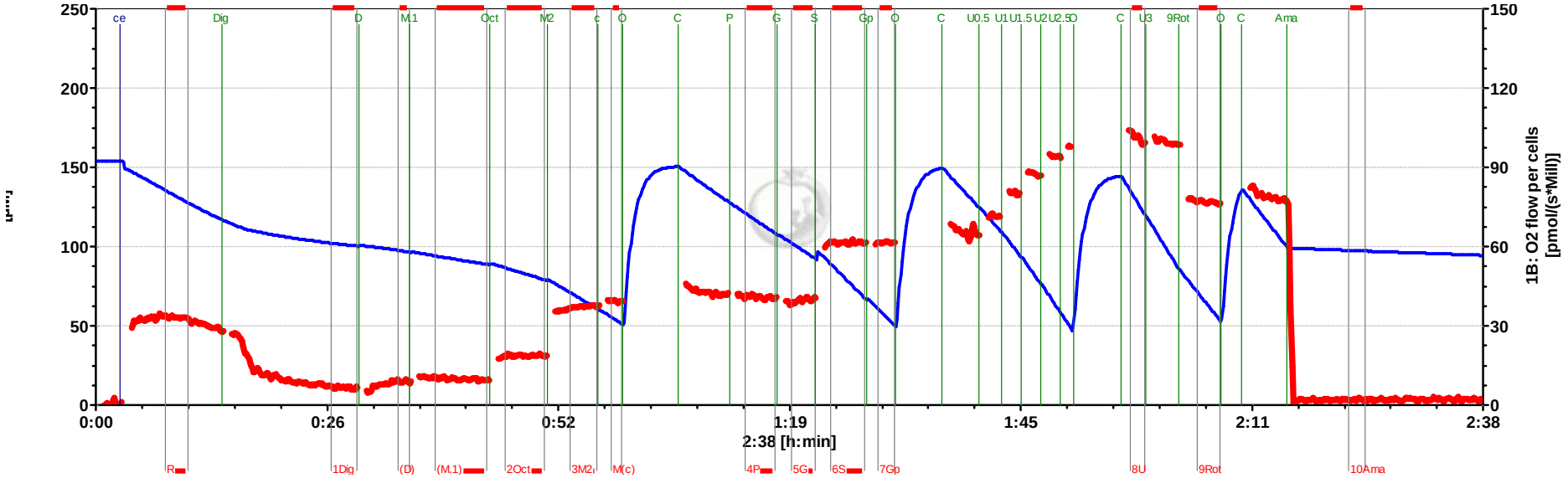
G
S
Gp
O
C
U0.5
U1
U1.5
U2
U2.5
O
C
U3
9Rot
O
C
Ama
250
200
150
100
50
0
150
120
90
60
30
0
0:00
0:26
0:52
1:19
1:45
2:11
2:38
2:38 [h:min]
1B: O2 flow per cells
[pmol/(s*Mill)]

# P1

## RP1

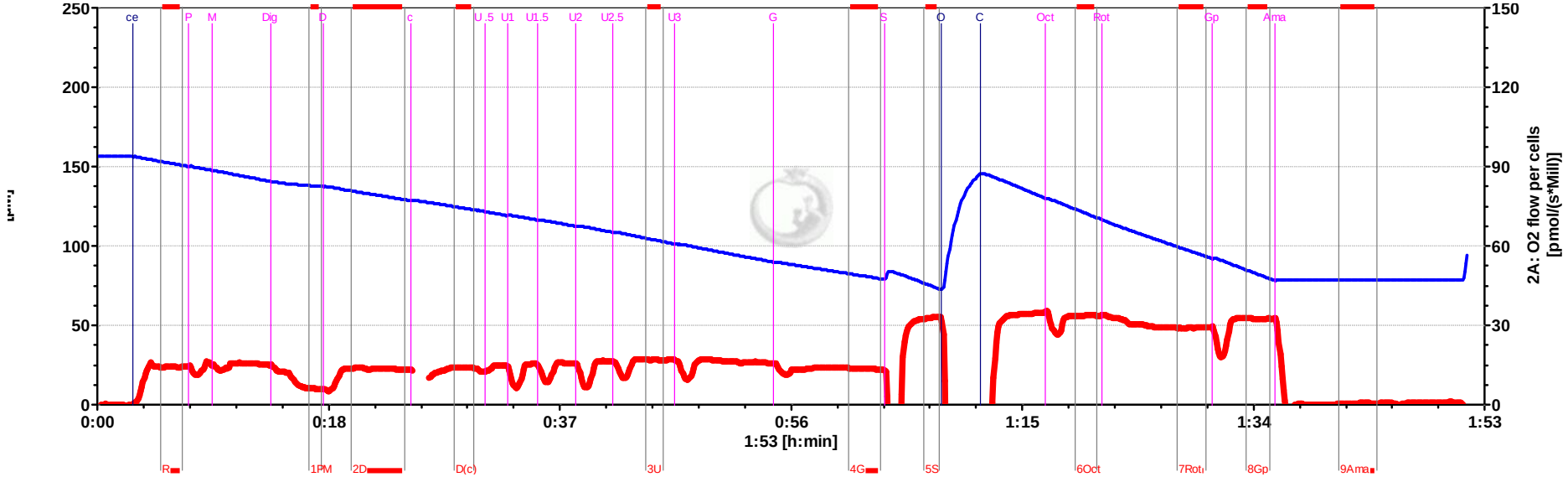

ce
M
Dig
D
c
O
C
U.5
U1
U1.5
U2
U2.5
U3
O
C
G
S
Oct
O
C
Rot
Gp
O
C
Ama
250
200
150
100
50
0
150
120
90
60
30
0
0:00
0:26
0:52
1:19
1:45
2:11
2:38
2:38 [h:min]
1A: O2 flow per cells [pmol/(s*Mill)]
R
1PM
2D
D(c)
3U
4G
5S
6Oct
7Rot
8Gp
9Ama

## RP2

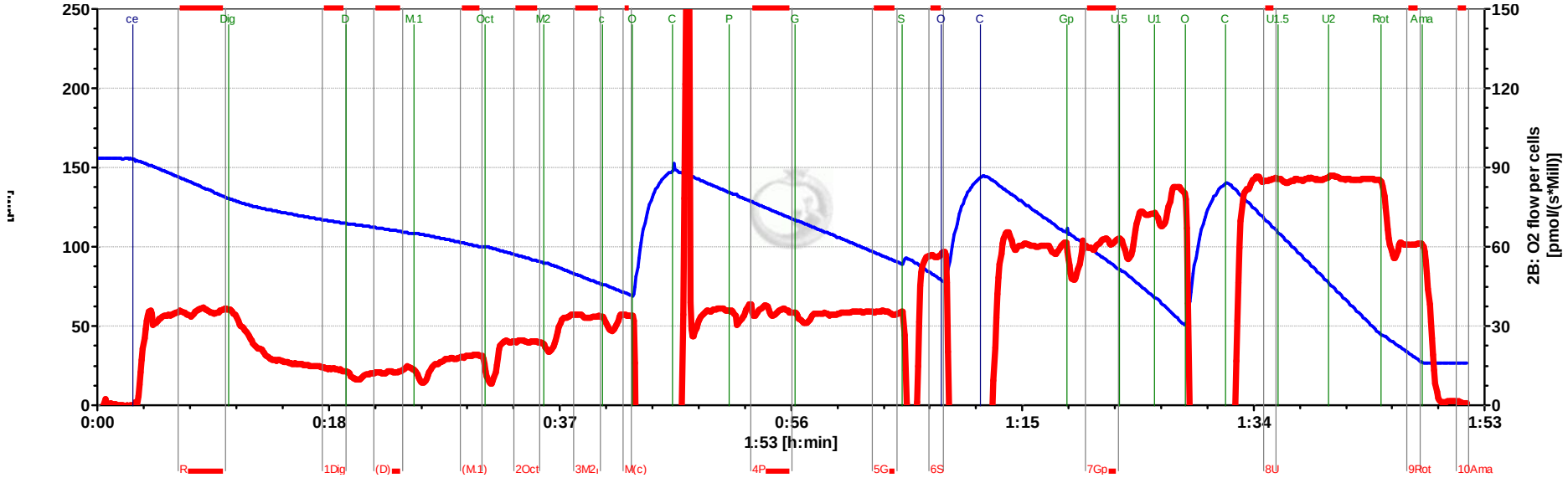

ce
Dig
D
M1
Oct
M2
c
O
C
P
G
S
Gp
O
C
U0.5
U1
U1.5
U2
U2.5
O
C
U3
9Rot
O
C
Ama
250
200
150
100
50
0
150
120
90
60
30
0
0:00
0:26
0:52
1:19
1:45
2:11
2:38
2:38 [h:min]
1B: O2 flow per cells [pmol/(s*Mill)]
R
1Dig
(D)
(M.1)
2Oct
3M2
M(c)
4P
5G
6S
7Gp
8U
9Rot
10Ama

# P2

## RP1

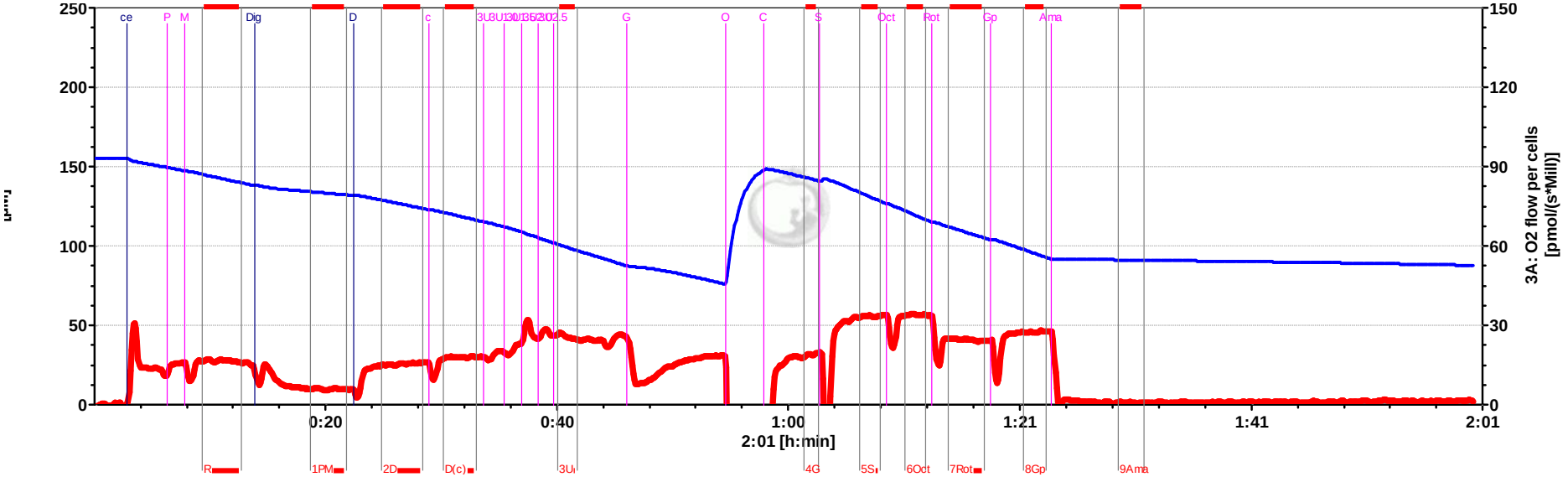

ce
P
M
Dig
D
c
U.5
U1
U1.5
U2
U2.5
U3
G
S
O
C
Oct
Rot
Gp
Ama
250
200
150
100
50
0
150
120
90
60
30
0
0:00
0:18
0:37
0:56
1:15
1:34
1:53
1:53 [h:min]
2A: O2 flow per cells [pmol/(s*Mill)]
R
1PM
2D
D(c)
3U
4G
5S
6Oct
7Rot
8Gp
9Ama

## RP2

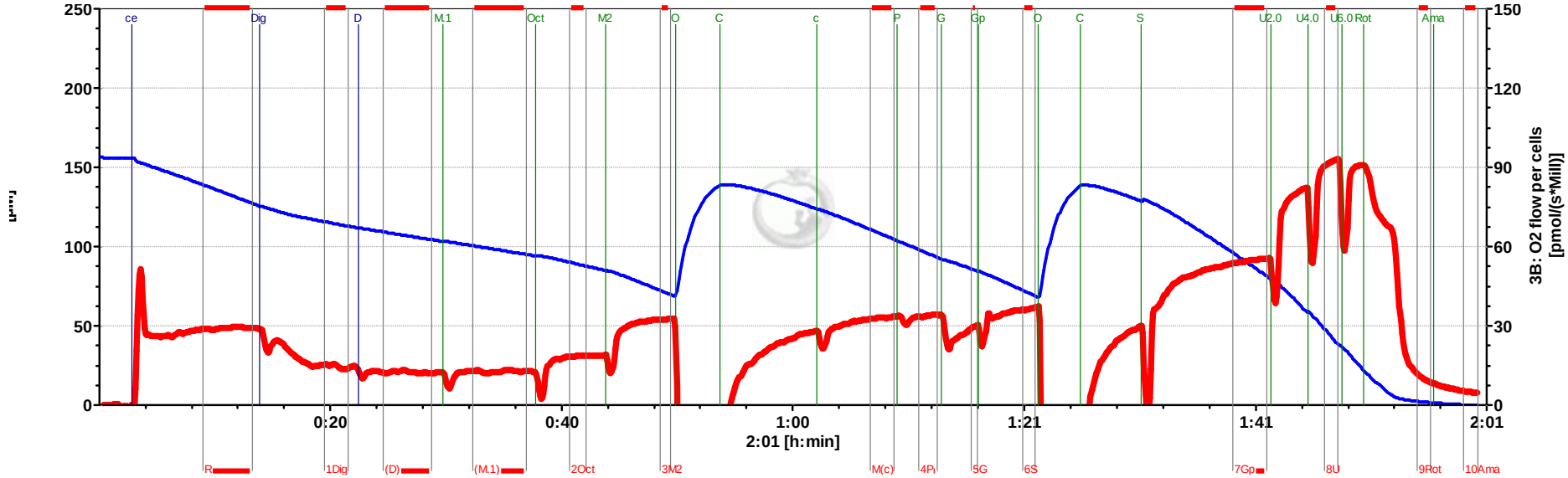

ce
Dig
D
M.1
Oct
M2
c
O
C
P
G
S
O
C
Gp
U.5
U1
O
C
U1.5
U2
Rot
Ama
250
200
150
100
50
0
150
120
90
60
30
0
0:00
0:18
0:37
0:56
1:15
1:34
1:53
1:53 [h:min]
2B: O2 flow per cells [pmol/(s*Mill)]
R
1Dig
(D)
(M.1)
2Oct
3M2
M(c)
4P
5G
6S
7Gp
8U
9Rot
10Ama

# P3

## RP1

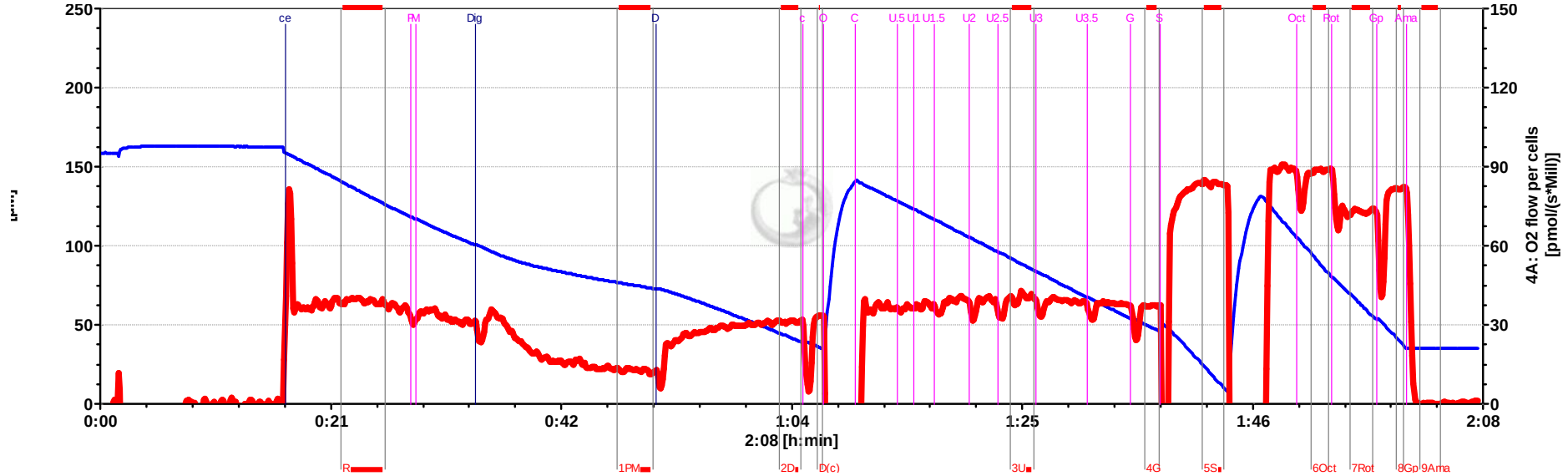

ce
P
M
Dig
D
c
G
O
C
S
Oct
Rot
Gp
Ama
250
200
150
100
50
0
150
120
90
60
30
0
0:20
0:40
1:00
1:21
1:41
2:01
2:01 [h:min]
3A: O2 flow per cells [pmol/(s*Mill)]
R
1PM
2D
D(c)
3U
4G
5S
6Oct
7Rot
8Gp
9Ama

## RP2

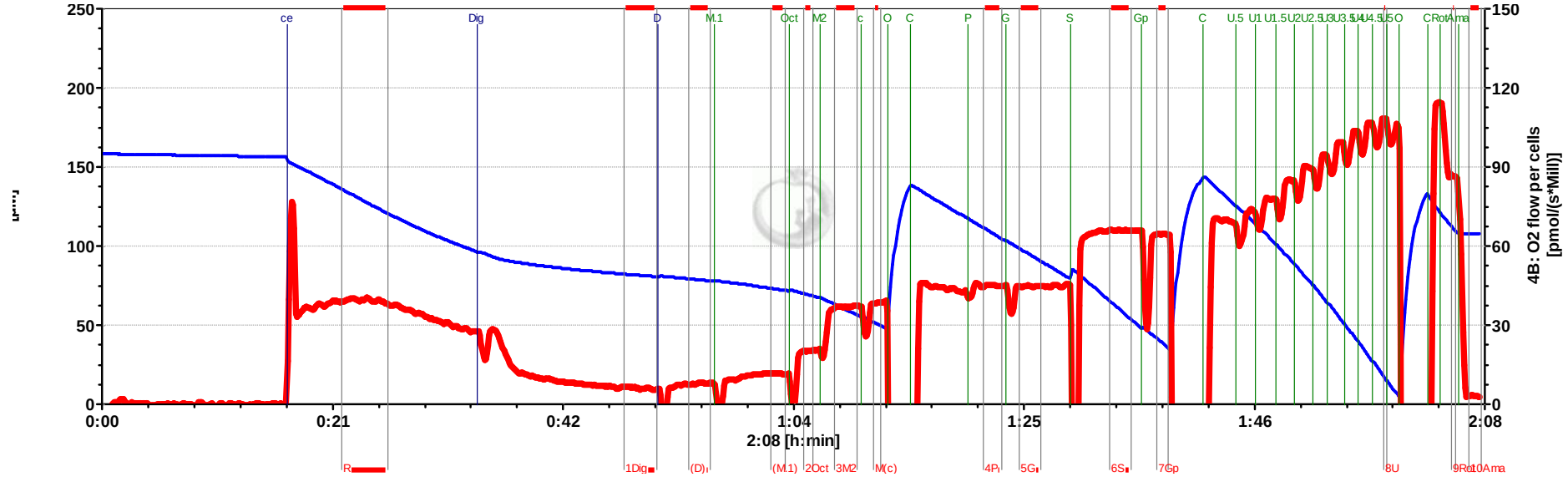

ce
Dig
D
M.1
Oct
M2
O
C
c
P
G
Gp
O
C
S
U2.0
U4.0
U6.0
Rot
Ama
250
200
150
100
50
0
150
120
90
60
30
0
0:20
0:40
1:00
1:21
1:41
2:01
2:01 [h:min]
3B: O2 flow per cells [pmol/(s*Mill)]
R
1Dig
(D)
(M.1)
2Oct
3M2
M(c)
4P
5G
6S
7Gp
8U
9Rot
10Ama

# P4

## RP1

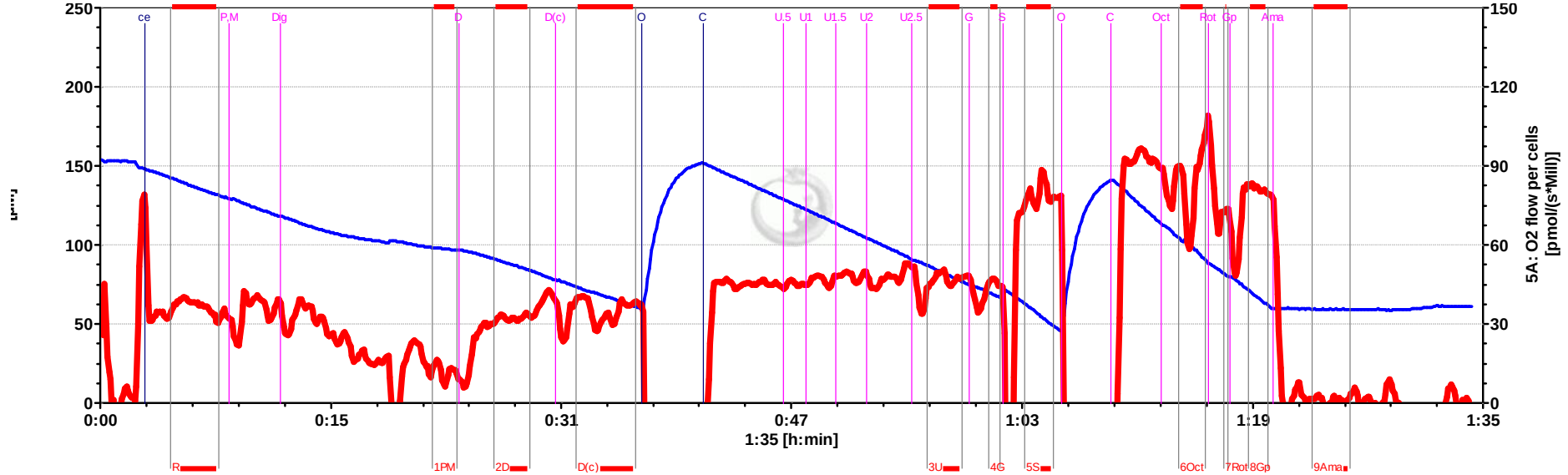

ce
PM
Dig
D
c
O
C
U.5 U1 U1.5
U2
U2.5
U3
U3.5
G
S
Oct
Rot
Gp
Ama
R
1PM
2D
D(c)
3U
4G
5S
6Oct
7Rot
8Gp
9Ama
0:00
0:21
0:42
1:04
1:25
1:46
2:08
2:08 [h:min]
4A: O2 flow per cells [pmol/(s*Mill)]

## RP2

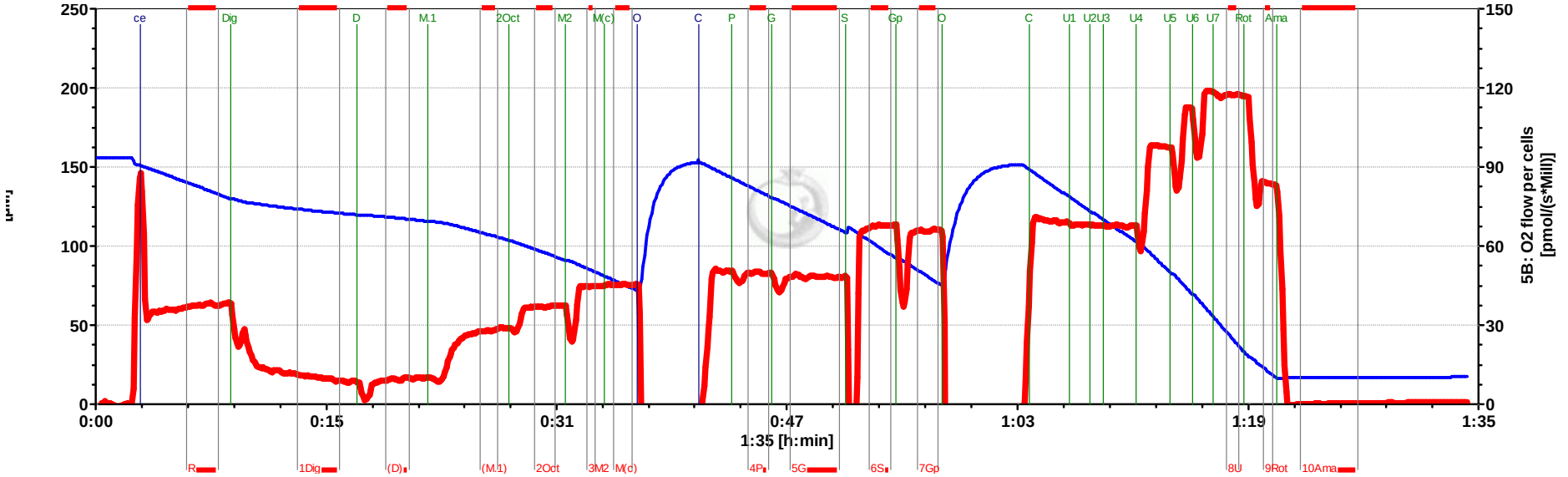

ce
Dig
D
M.1
Oct
M2
c
O
C
P
G
S
Gp
C
U.5
U1
U1.5
O
Rot
Ama
R
1Dig
(D)
(M.1)
2Oct
3M2
M(c)
4P
5G
6S
7Gp
8U
9Rot
10Ama
0:00
0:21
0:42
1:04
1:25
1:46
2:08
2:08 [h:min]
4B: O2 flow per cells [pmol/(s*Mill)]

# P5

## RP1

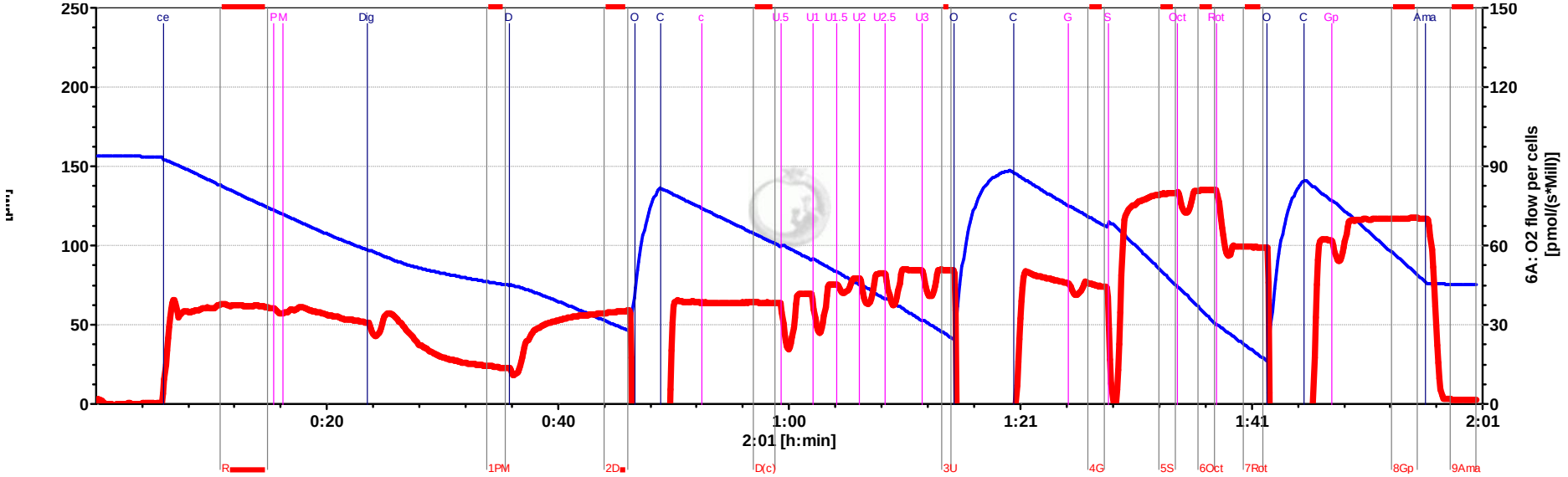

ce
P,M
Dig
D
D(c)
O
C
U.5
U1
U1.5
U2
U2.5
G
S
O
C
Oct
Rot
Gp
Ama
R
1PM
2D
D(c)
3U
4G
5S
6Oct
7Rot
8Gp
9Ama
0:00
0:15
0:31
0:47
1:03
1:19
1:35
1:35 [h:min]
5A: O2 flow per cells [pmol/(s*Mill)]

## RP2

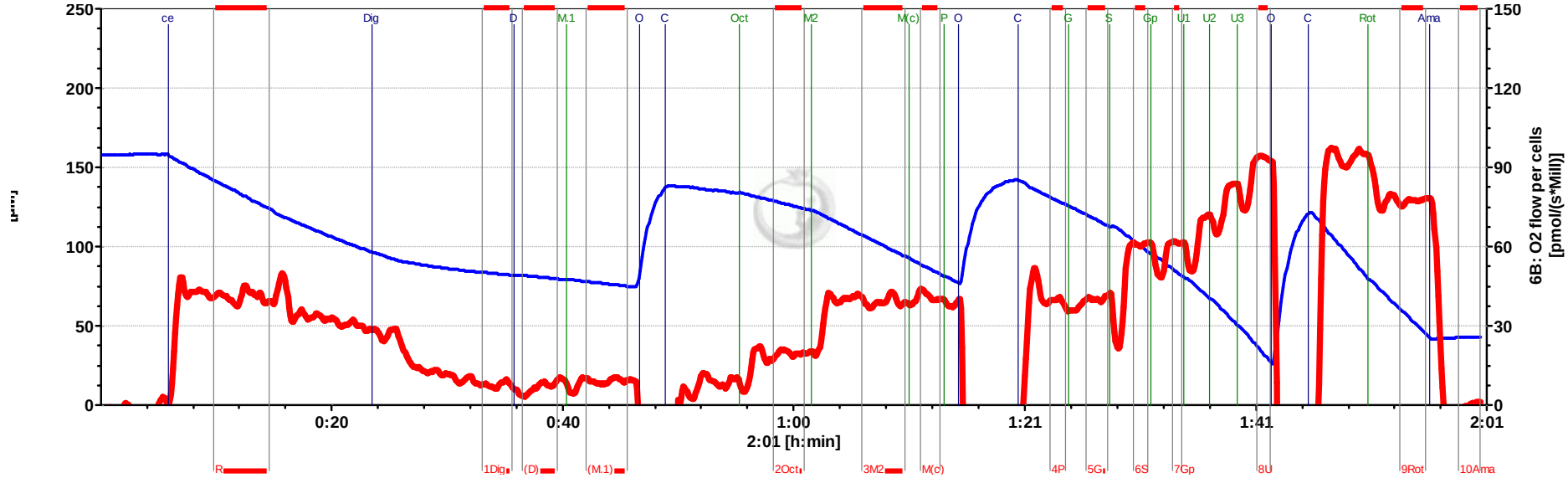

ce
Dig
D
M.1
2Oct
M2
M(c)
O
C
P
G
S
Gp
O
C
U1
U2U3
U4
U5
U6
U7
Rot
Ama
R
1Dig
(D)
(M.1)
2Oct
3M2
M(d)
4P
5G
6S
7Gp
8U
9Rot
10Ama
0:00
0:15
0:31
0:47
1:03
1:19
1:35
1:35 [h:min]
5B: O2 flow per cells [pmol/(s*Mill)]

# P6

## RP1

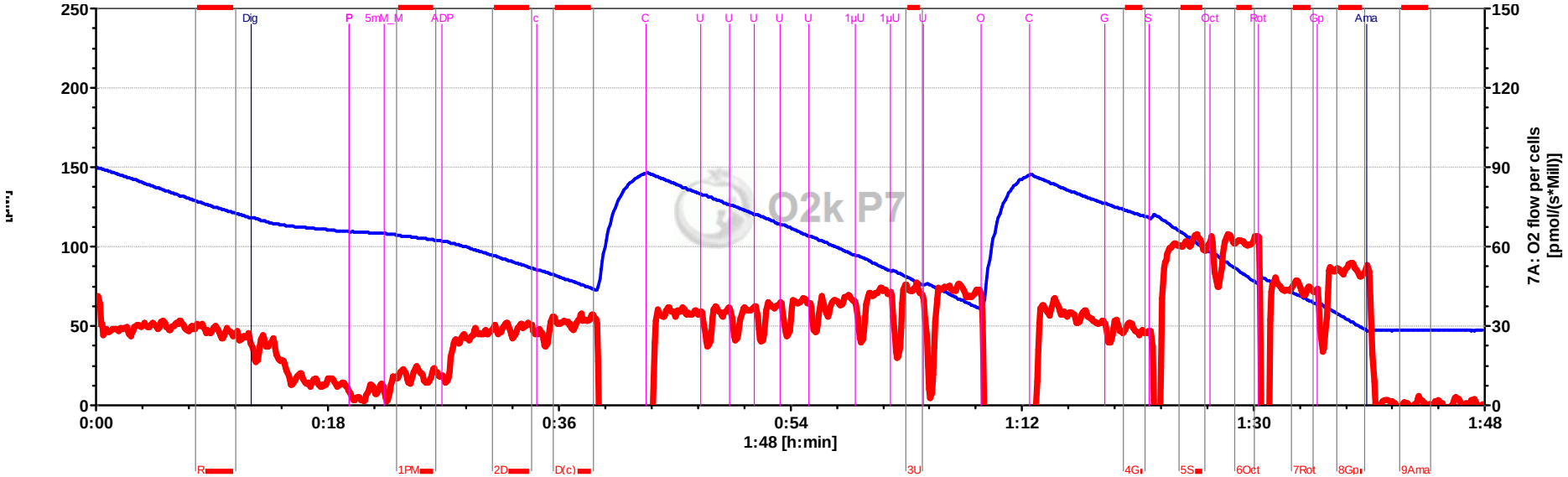

ce
PM
Dig
D
O
C
c
U.5
U1
U1.5
U2
U2.5
U3
O
C
G
S
Oct
Rot
O
C
Gp
Ama
250
200
150
100
50
0
150
120
90
60
30
0
0:20
0:40
1:00
1:21
1:41
2:01
2:01 [h:min]
6A: O2 flow per cells [pmol/(s*Mill)]
R
1PM
2D
D(c)
3U
4G
5S
6Oct
7Rot
8Gp
9Ama

## RP2

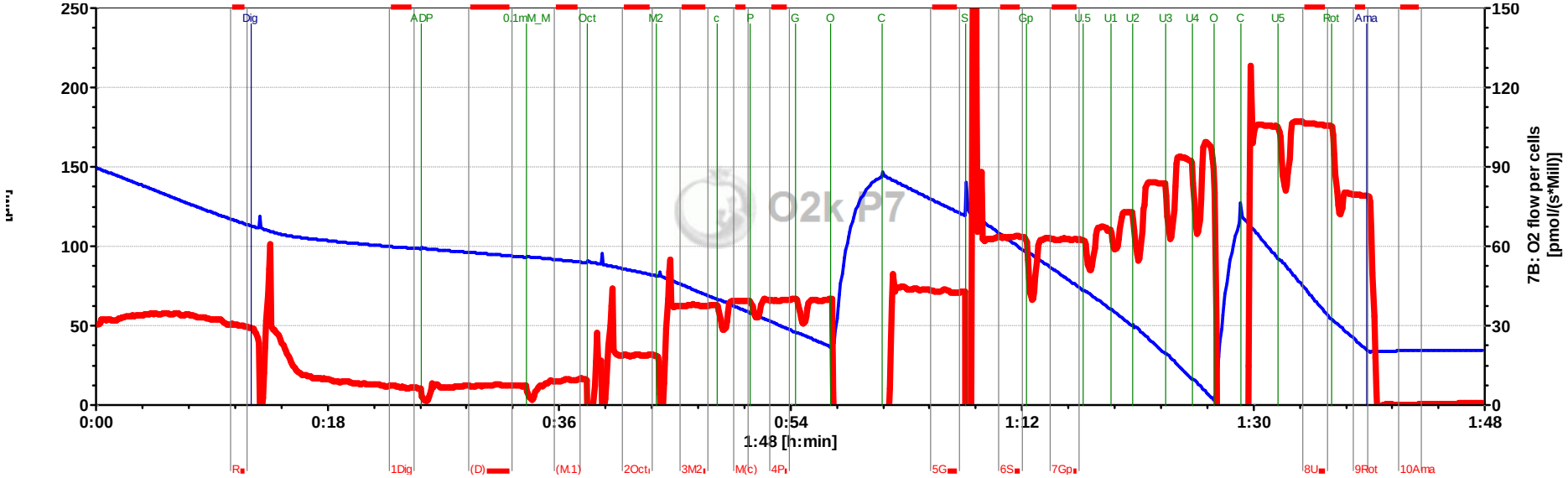

ce
Dig
D
M.1
O
C
Oct
M2
M(c)
P
O
C
G
S
Gp
U1
U2
U3
O
C
Rot
Ama
250
200
150
100
50
0
150
120
90
60
30
0
0:20
0:40
1:00
1:21
1:41
2:01
2:01 [h:min]
6B: O2 flow per cells [pmol/(s*Mill)]
R
1Dig
(D)
(M.1)
2Oct
3M2
M(c)
4P
5G
6S
7Gp
8U
9Rot
10Ama

# P7

## RP1


Dig
P
5mM_M
ADP
c
C
U
U
U
U
U
1µU
1µU
U
O
C
G
S
Oct
Rot
Gp
Ama
O2k P7
R
1PM
2D
D(c)
3U
4G
5S
6Oct
7Rot
8Gp
9Ama
0:00
0:18
0:36
0:54
1:12
1:30
1:48
1:48 [h:min]
7A: O2 flow per cells [pmol/(s*Mill)]
0
50
100
150
200
250
30
60
90
120
150

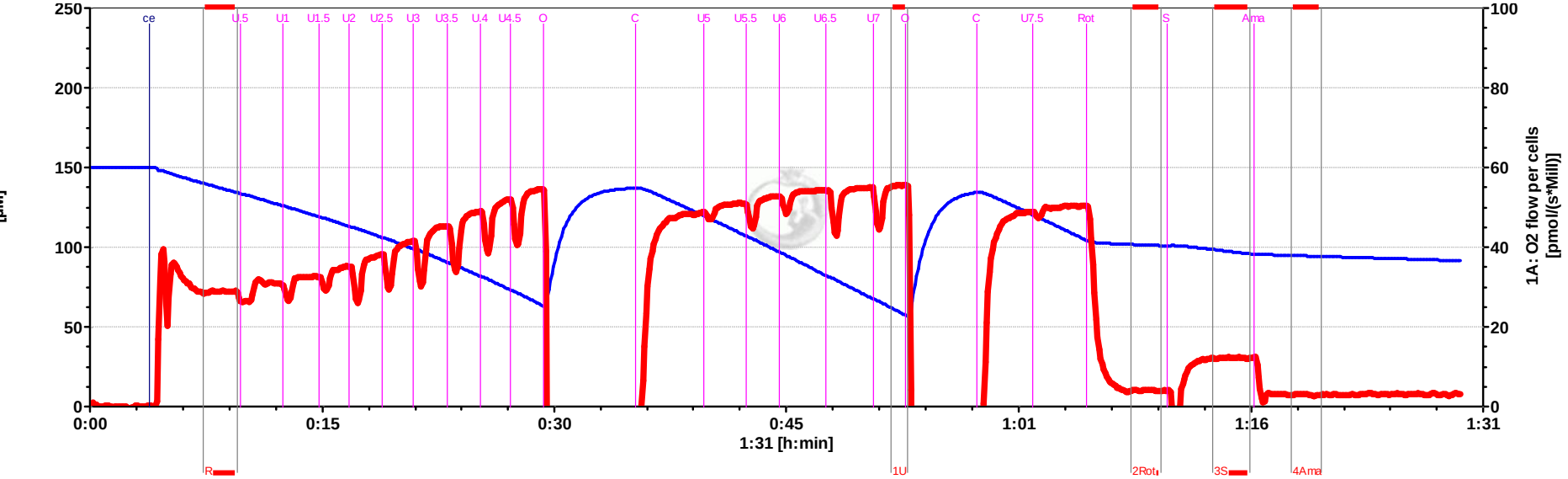
## RP2


Dig
ADP
0.1mM_M
Oct
M2
c
P
G
O
C
S
Gp
U.5
U1
U2
U3
U4
O
C
U5
Rot
Ama
O2k P7
R
1Dig
(D)
(M.1)
2Oct
3M2
M(c)
4P
5G
6S
7Gp
8U
9Rot
10Ama
0:00
0:18
0:36
0:54
1:12
1:30
1:48
1:48 [h:min]
7B: O2 flow per cells [pmol/(s*Mill)]
0
50
100
150
200
250
30
60
90
120
150

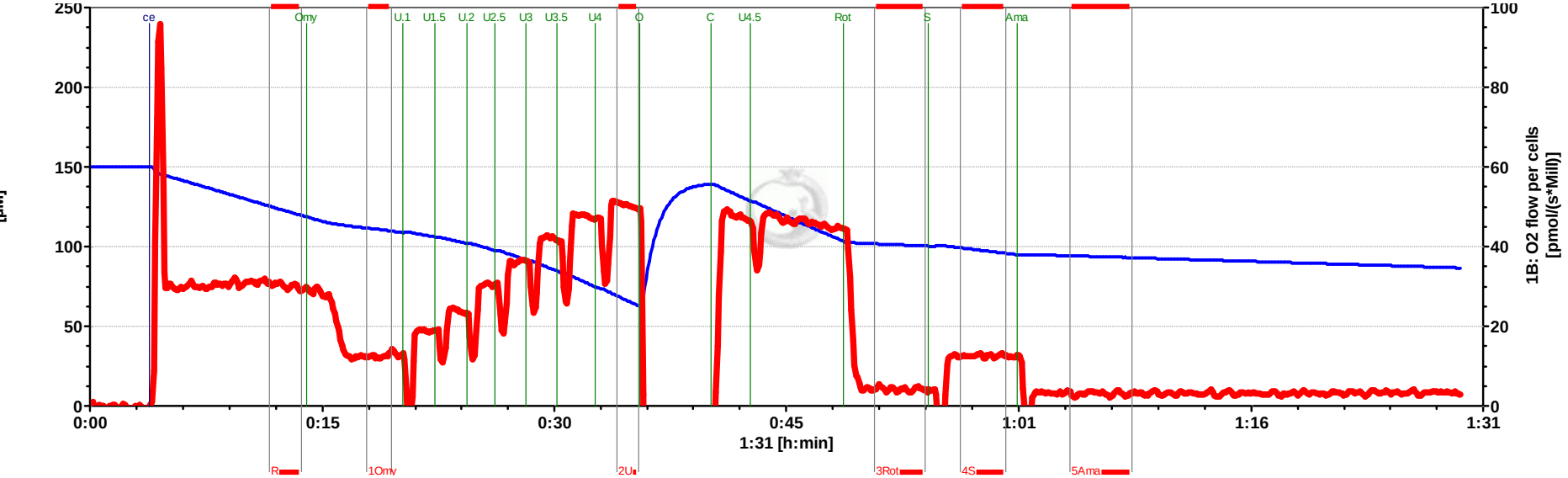
# Intact cells (HEK293T)

# P1

## CCP(S)_R1: Without Omy

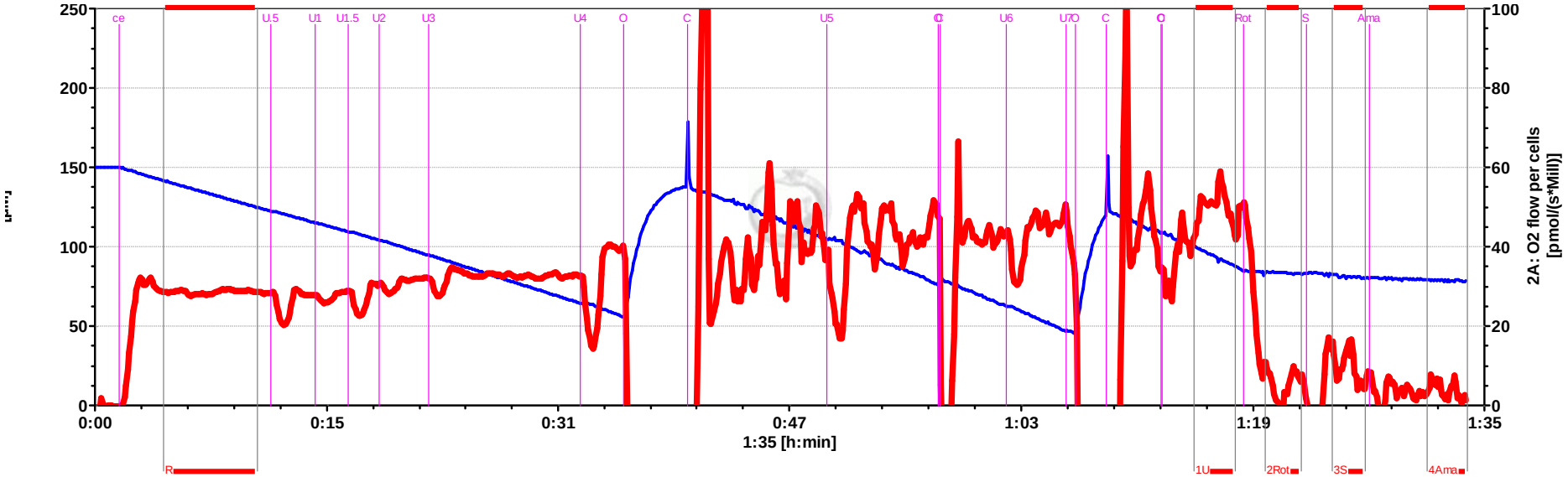



## CCP(S)_R2: With Omy

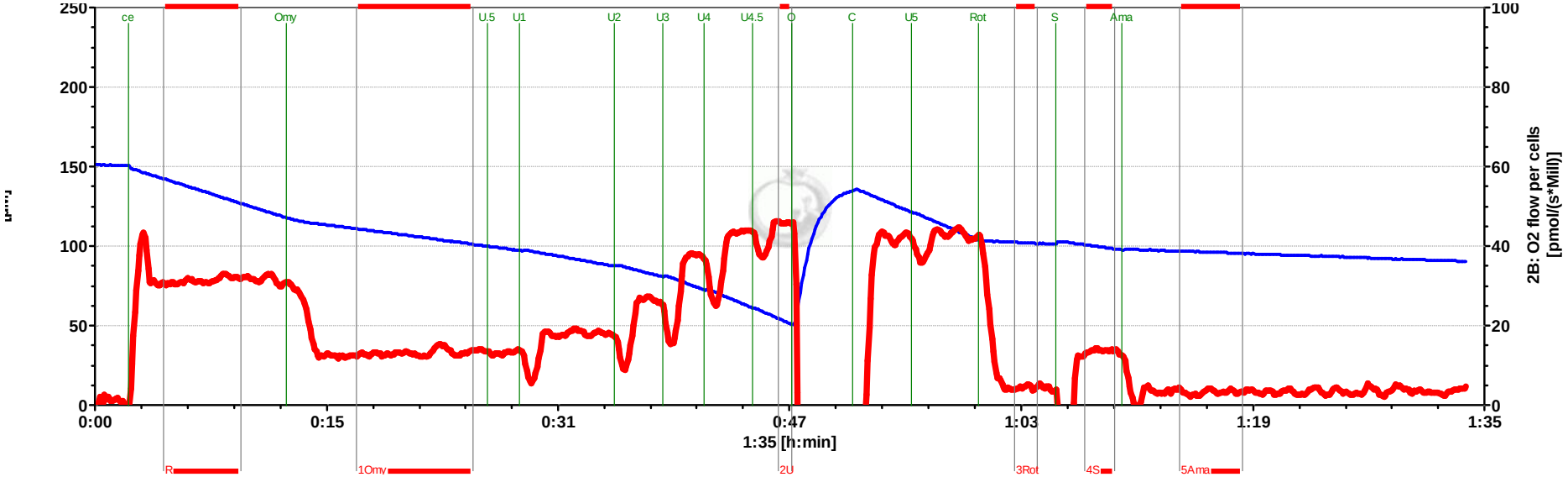


# P2

## CCP(S)_R1: Without Omy

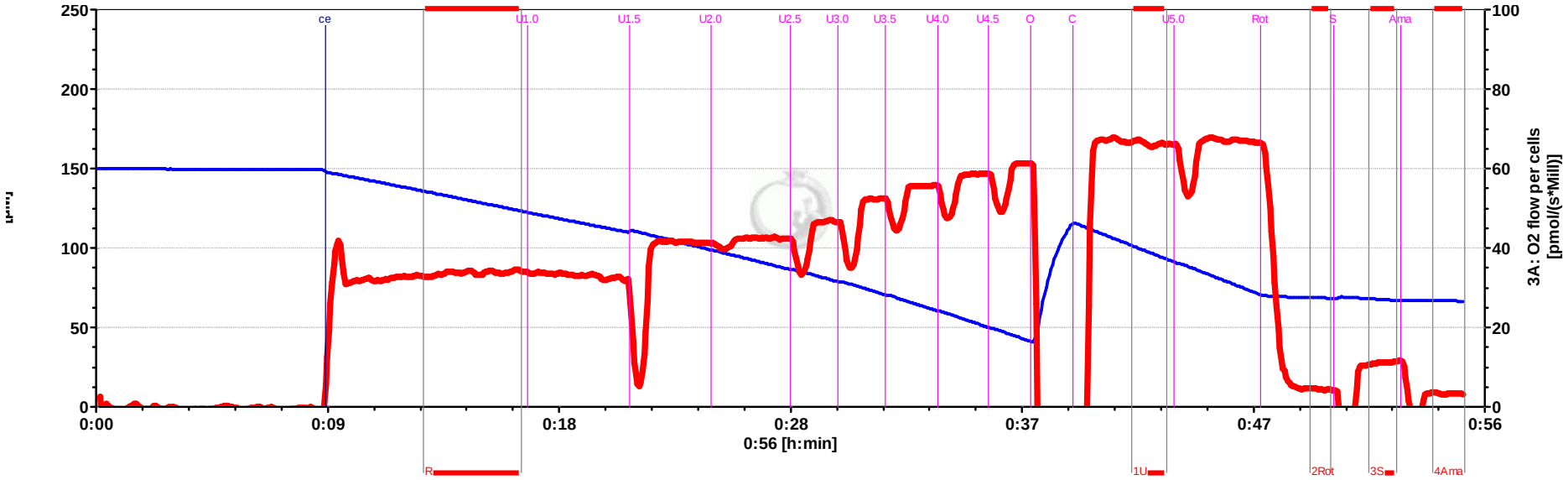



## CCP(S)_R2: With Omy

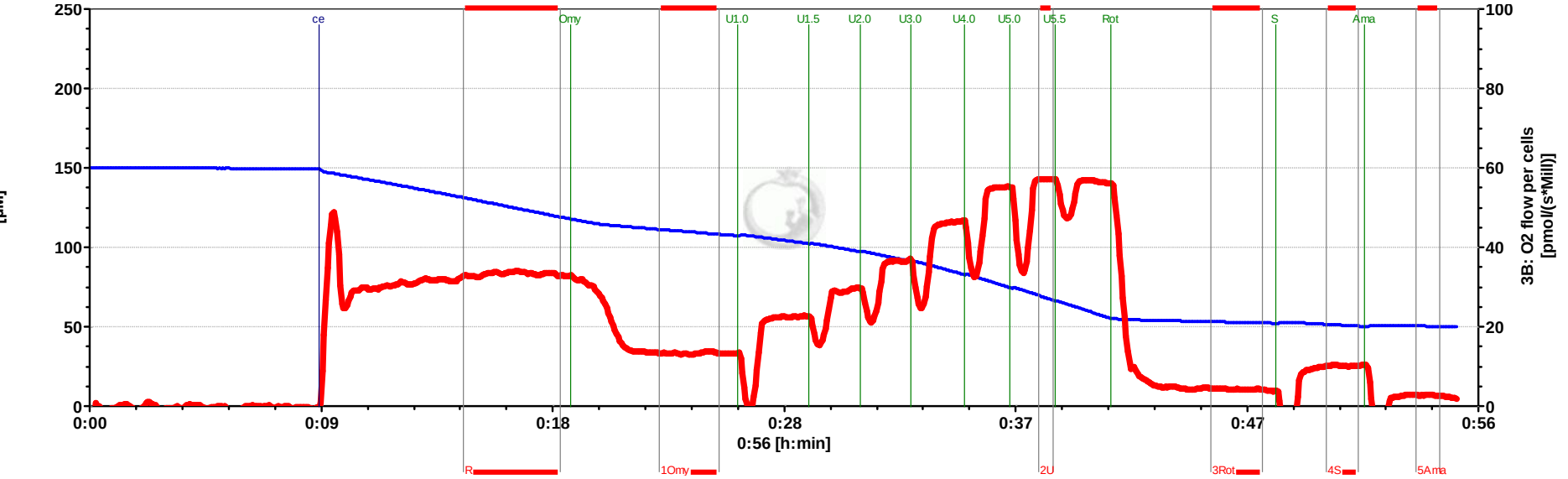


# P3

## CCP(S)_R1: Without Omy

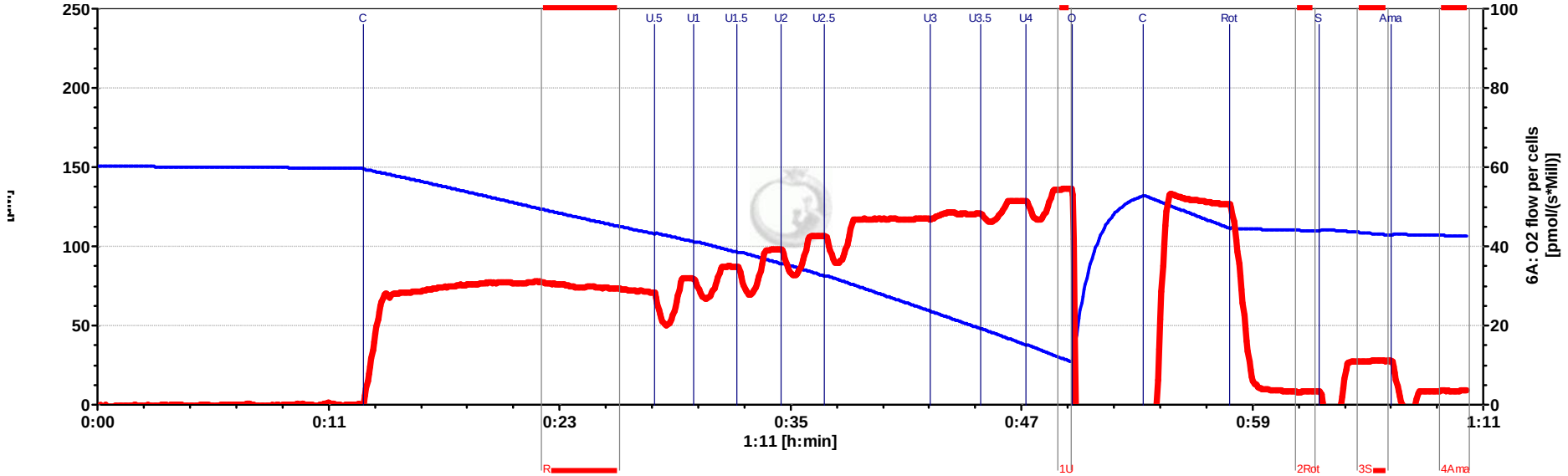



## CCP(S)_R2: With Omy

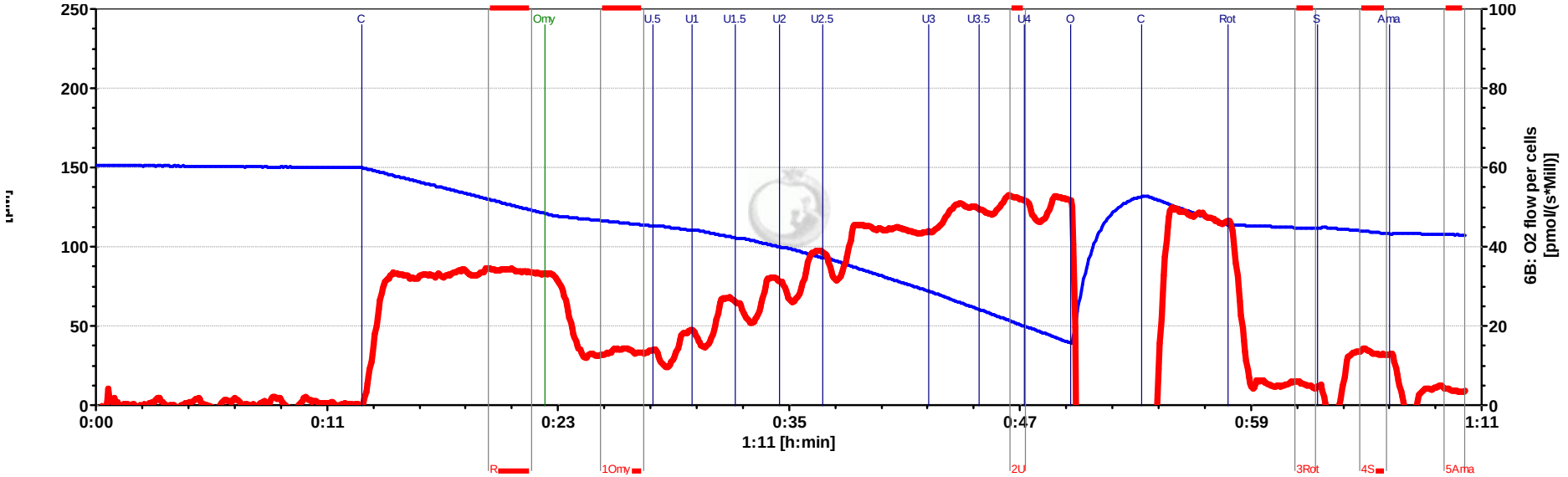


# P6

## CCP(S)_R1: Without Omy




## CCP(S)_R2: With Omy

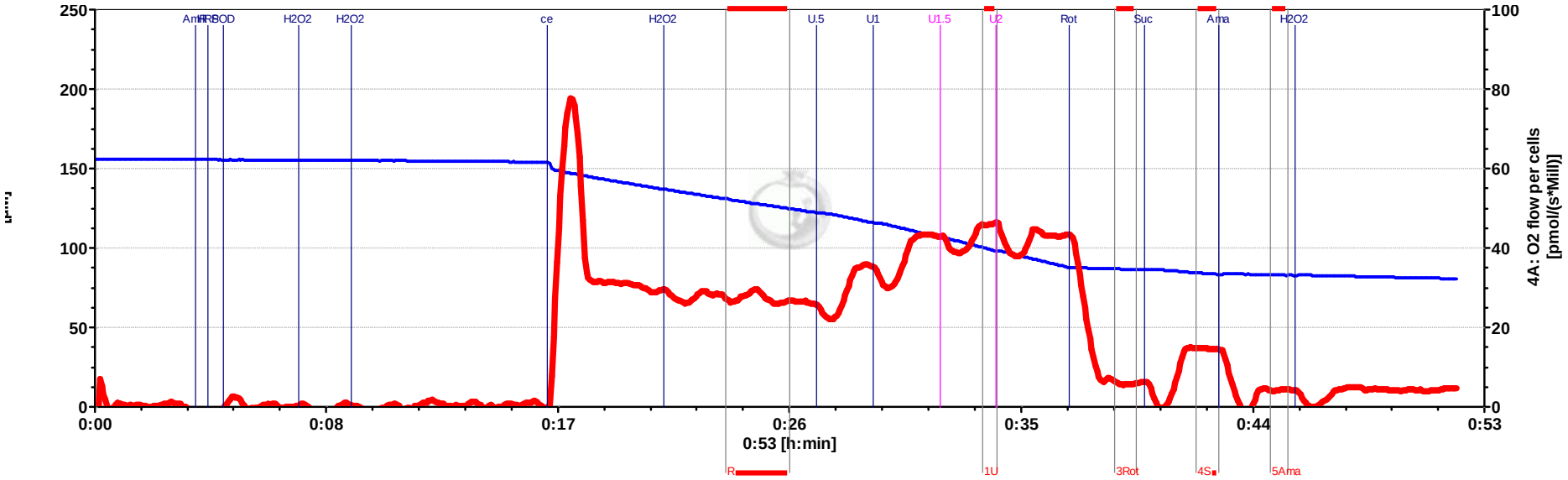


# Intact cells (HEK293T)

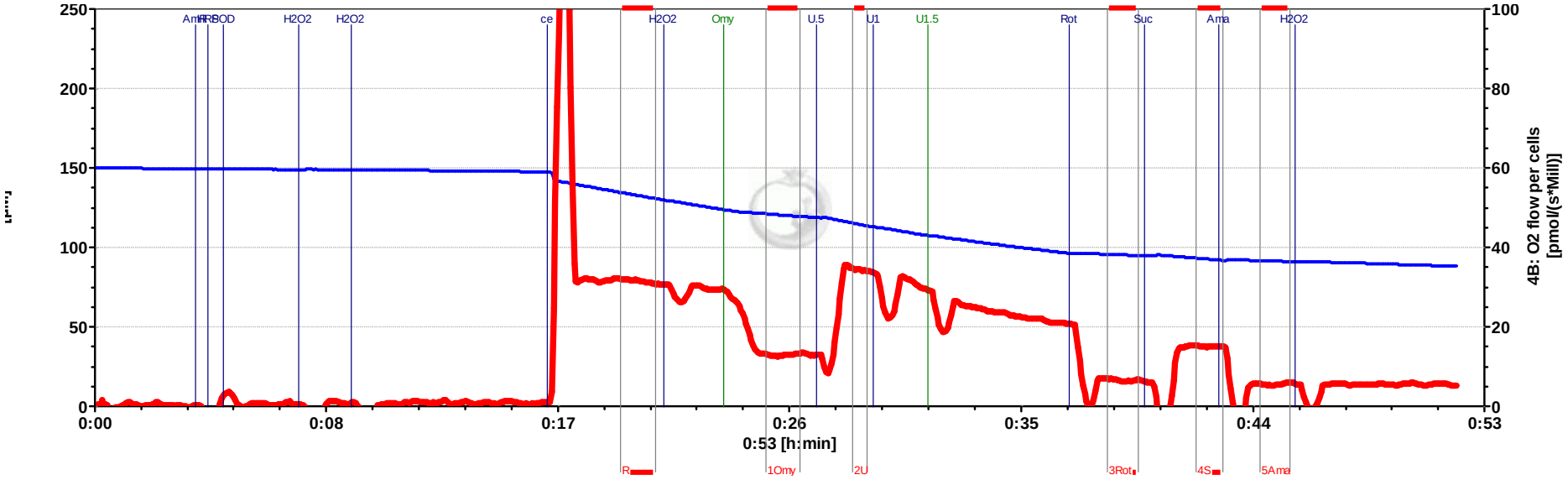
# Respiration and $H_2O_2$ production (DMEM without phenol red)

# P4

## CCP(S)_R1: Without Omy

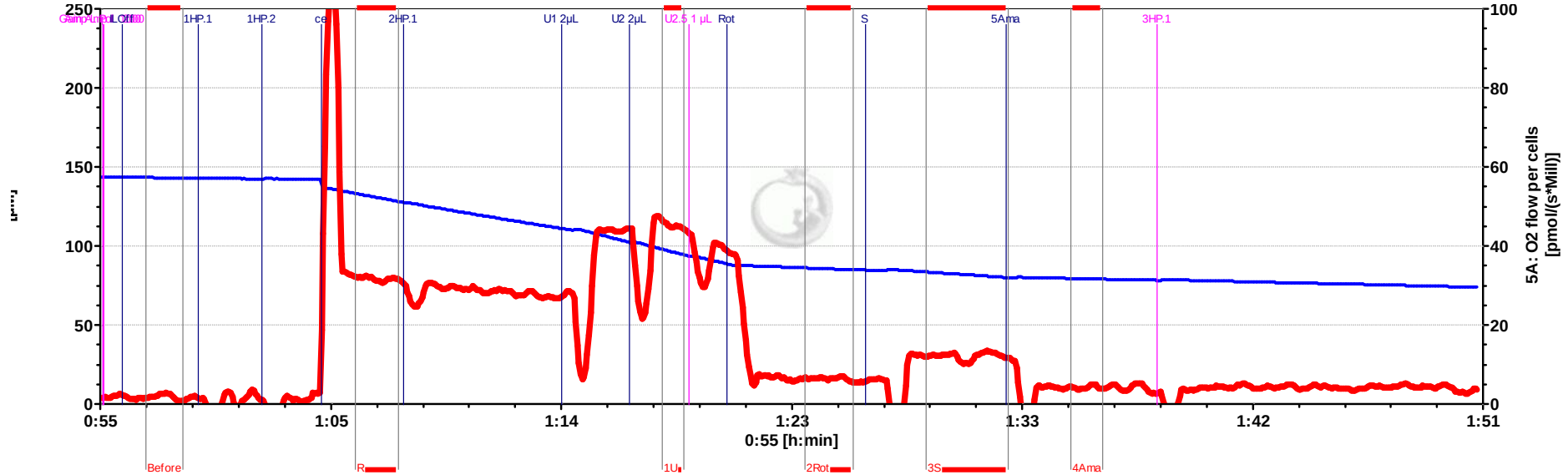



## CCP(S)_R2: With Omy

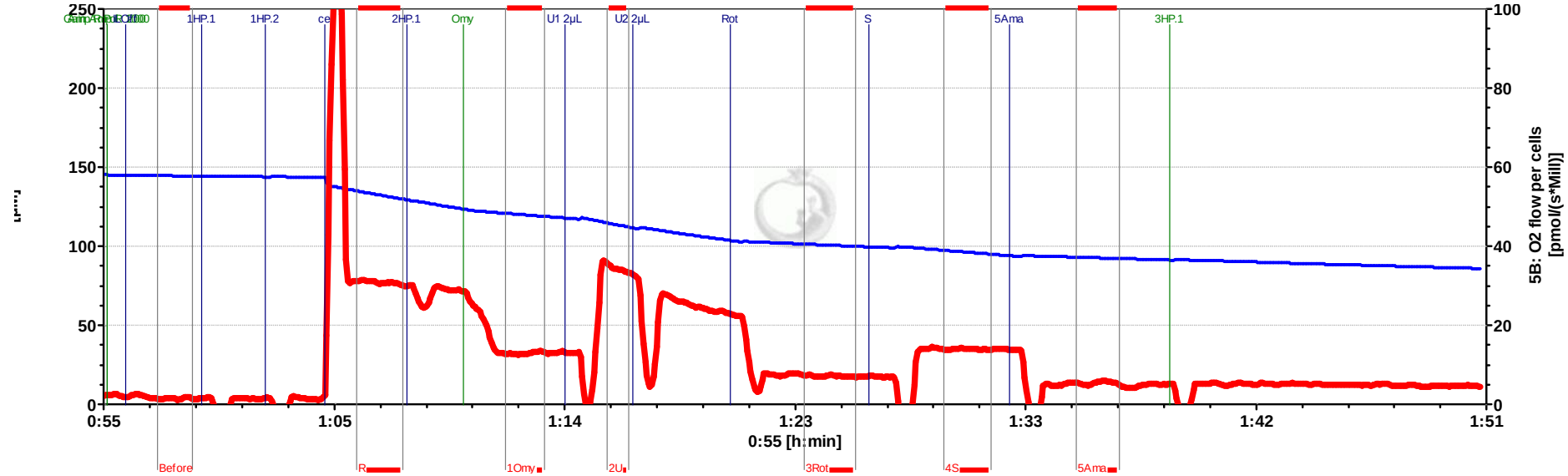


# P5

## CCP(S)_R1: Without Omy

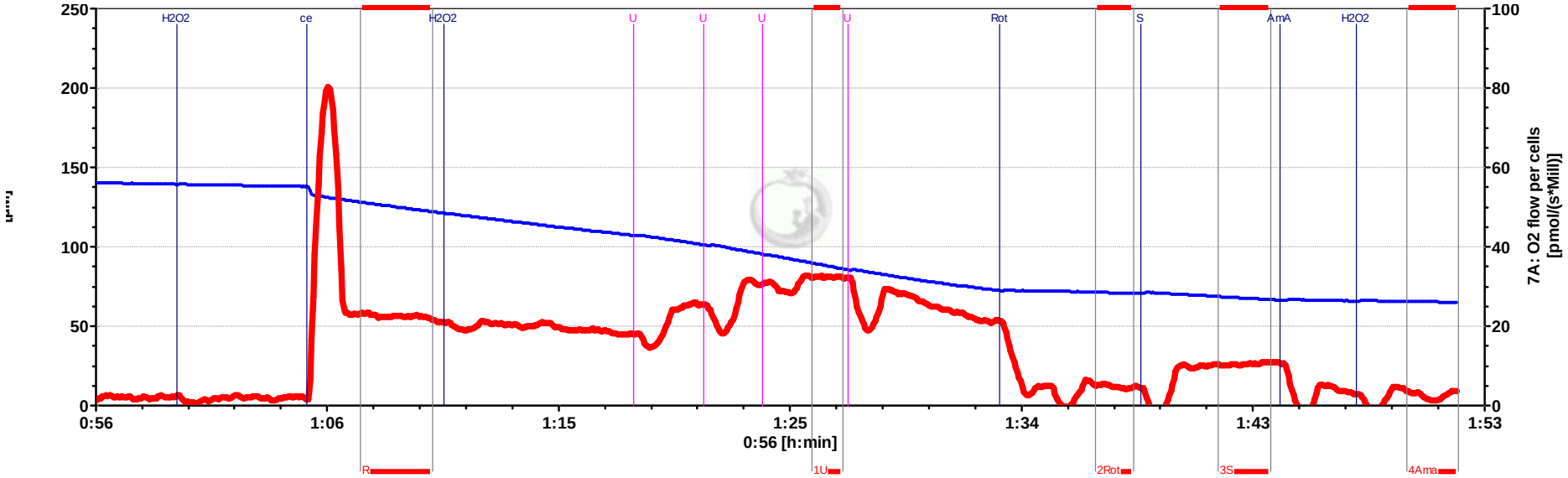



## CCP(S)_R2: With Omy

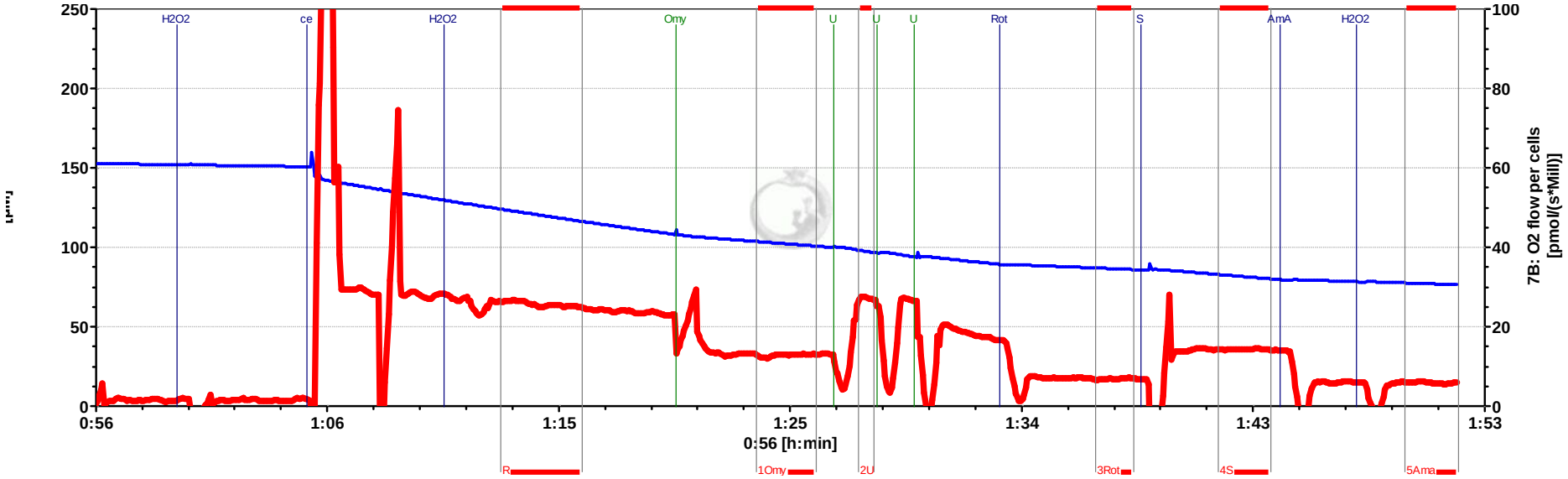


# P7

## CCP(S)_R1: Without Omy

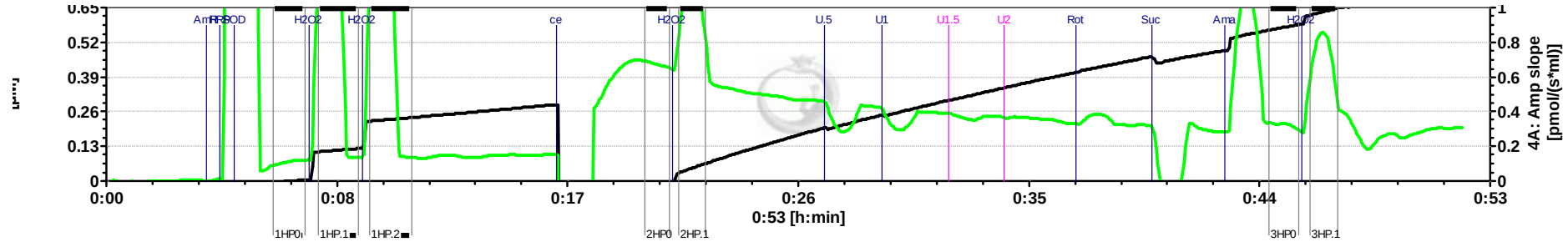



## CCP(S)_R2: With Omy

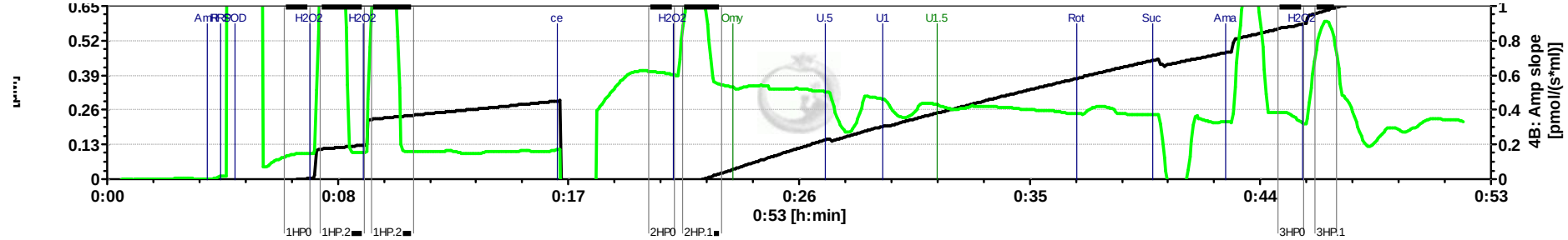


# P4

## CCP(S)_R1: Without Omy

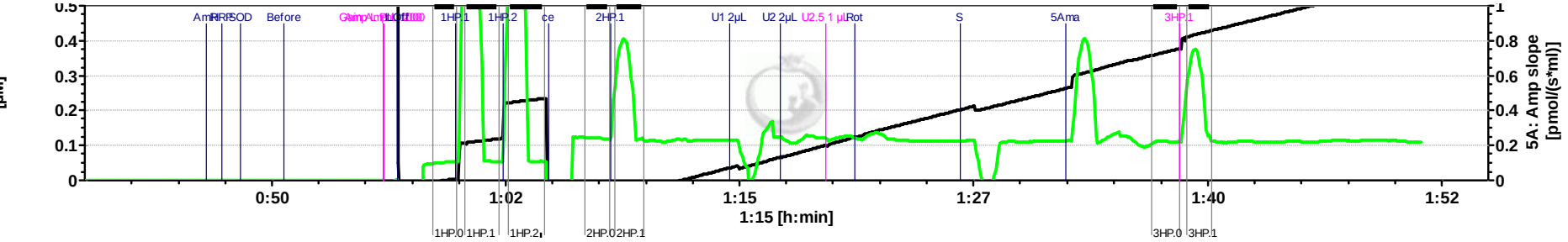



## CCP(S)_R2: With Omy

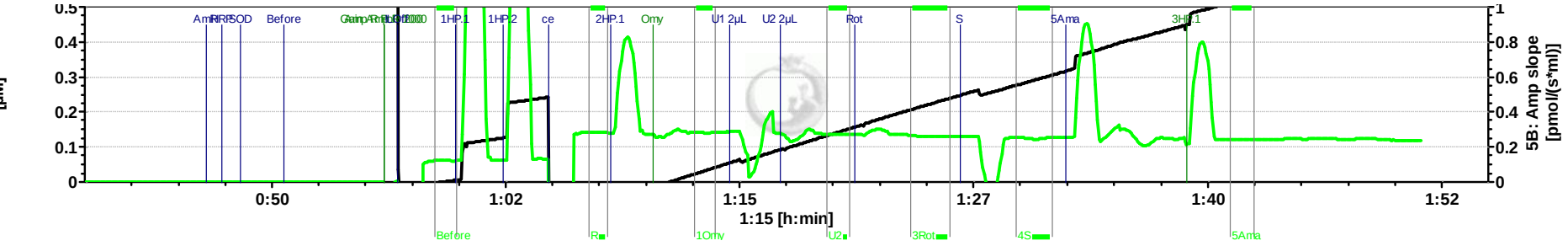


# P5

## CCP(S)_R1: Without Omy

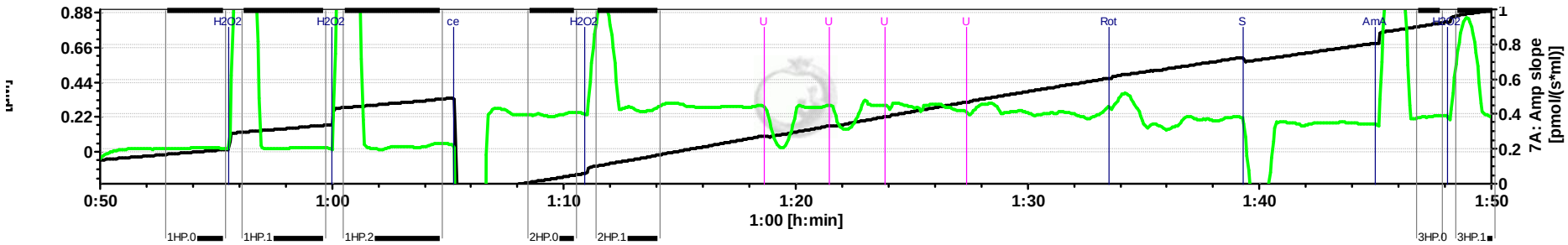


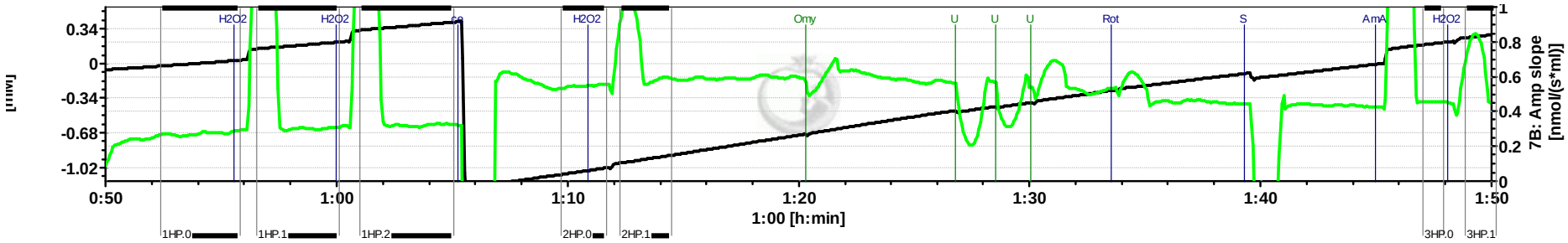

## CCP(S)_R2: With Omy



# P7

## CCP(S)_R1: Without Omy




## CCP(S)_R2: With Omy