Supplementary Table S8. Intracellular concentrations (nmol g-1 CDW) in *E.coli* BL21 quantified by the upgraded zic-HILIC MS/MS method. The data represent absolute metabolite concentrations obtained from one of the biological replicates (n=2) of batch fermenter cultivation with oxygen limitation and anaerobiosis (Figure 2). The table indicates average values from technical replicates (n=5), standard deviation (SD), and relative standard deviation (RSD,%) for each metabolite. Absolute concentrations for NMN were below the limit of quantification.

Sampling Time		NAM	NCA	FAD	NADH	ADPR	NAD^+	NAMN	NADPH	NR	$NADP^+$
T1	Average	8.9	27.1	87.9	253.4	0.4	863.6	43.9	62.8	7.3	238.8
	SD	3.1	5.4	5.3	13.6	0.1	103.9	4.6	4.9	0.4	15.6
	RSD	35.0	20.0	6.0	5.4	15.5	12.0	10.5	7.8	5.2	6.5
T2	Average	14.6	75.9	123.5	285.8	1.2	987.6	54.3	58.3	14.5	171.4
	SD	5.6	20.3	14.7	32.5	0.5	188.7	9.9	4.5	1.6	26.1
	RSD	38.7	26.8	11.9	11.4	41.5	19.1	18.2	7.7	11.0	15.2
T3	Average	14.1	75.4	129.1	284.5	1.9	973.1	50.5	48.4	12.8	159.1
	SD	3.1	17.4	7.9	18.8	0.6	84.9	7.4	1.8	1.7	12.7
	RSD	21.9	23.0	6.1	6.6	31.6	8.7	14.7	3.7	13.4	8.0
T4	Average	10.3	72.3	129.2	260.6	1.4	928.3	45.2	40.6	13.4	142.6
	SD	1.8	24.8	8.4	13.7	0.2	80.6	4.4	4.5	1.8	9.4
	RSD	17.0	34.3	6.5	5.3	15.8	8.7	9.7	11.1	13.0	6.6
T5	Average	16.7	86.8	126.7	260.0	2.5	896.9	46.4	31.8	15.8	132.9
	SD	4.4	26.9	14.3	18.3	0.4	153.3	4.9	2.1	1.7	21.2

Sampling Time		NAM	NCA	FAD	NADH	ADPR	NAD^+	NAMN	NADPH	NR	$NADP^+$
T5	RSD	26.4	31.0	11.3	7.1	13.8	17.1	10.6	6.7	10.7	15.9