

Electronic Supplementary Information

Time (Days)	FNT	TV
1	-0.06 (± 0.01)	-0.04 (+/- 0.00)
2	-0.06 (± 0.01)	-0.06 (± 0.00)
3	-0.05 (± 0.01)	-0.07 (± 0.00)
4	-0.06 (± 0.01)	-0.07 (± 0.00)
5	-0.05 (± 0.01)	-0.07 (± 0.01)
6	-0.06 (± 0.01)	-0.08 (± 0.00)
8	-0.06 (± 0.02)	-0.09 (± 0.00)
10	-0.06 (± 0.02)	-0.10 (± 0.01)
12	-0.07 (± 0.02)	-0.11 (± 0.01)
14	-0.06 (± 0.02)	-0.10 (± 0.01)
16	-0.07 (± 0.02)	-0.10 (± 0.01)

Table S1 – Absolute Tafel Slope values measured for each day of the stability testing of the constructed electrodes.

Time (Days)	FNT	TV
1	49406 (± 7968)	156536 (± 16858)
2	47708 (± 4293)	80468 (± 253)
3	43968 (± 1968)	80814 (± 6317)
4	42375 (± 3937)	74292 (± 5346)
5	48616 (± 1258)	66658 (± 6600)
6	46339 (± 589)	35078 (± 4717)
8	33281 (± 4406)	22585 (± 3580)
10	30375 (± 562)	34331 (± 1268)
12	26678 (± 2678)	17375 (± 0)
14	33468 (± 281)	7400 (± 2240)

Table S2 – Absolute activity data of the enzymes in solution. Activity was measured using syringaldazine as a substrate.

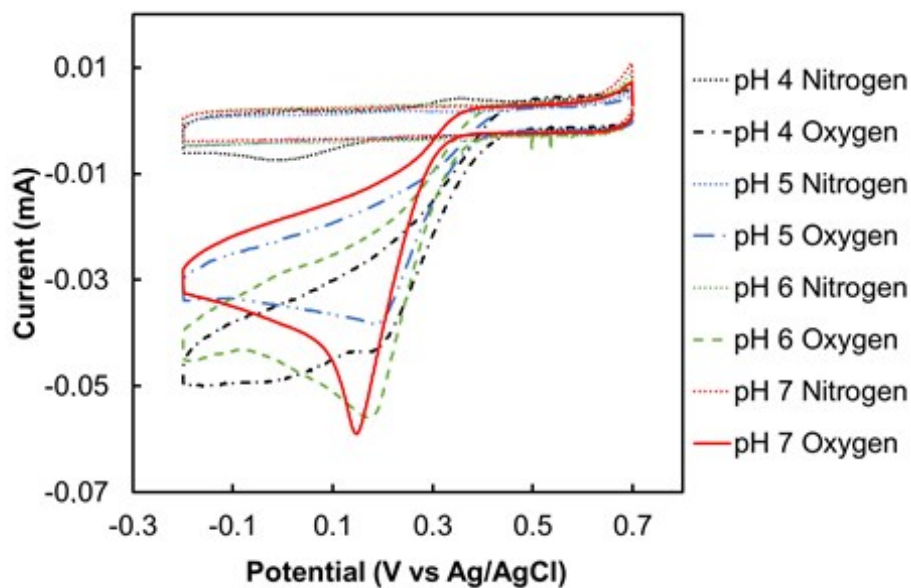


Figure S1. Cyclic voltammetry of the FNTL-modified electrode, measured at four different pH in nitrogen and oxygen saturated electrolyte. Onset potential decreases with increasing pH, but pH 7 was chosen as the optimal pH because the steepness of catalytic region was the highest.

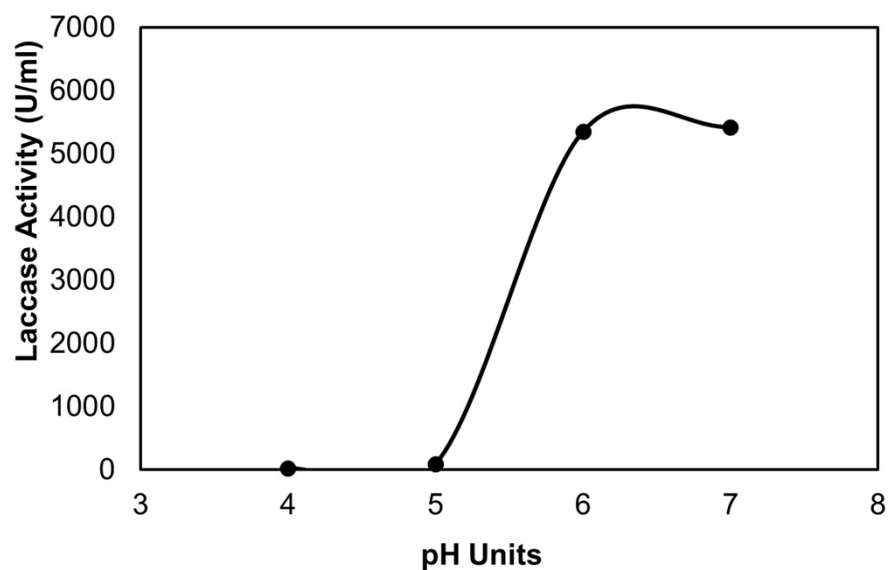


Figure S2 – Activity measured on different pH using the FNT laccase solution used for the construction of the electrodes. Syringaldazine was used as the substrate. The reaction was carried at room temperature (20°C). Maximum activity was detected around pH 6 and 7.

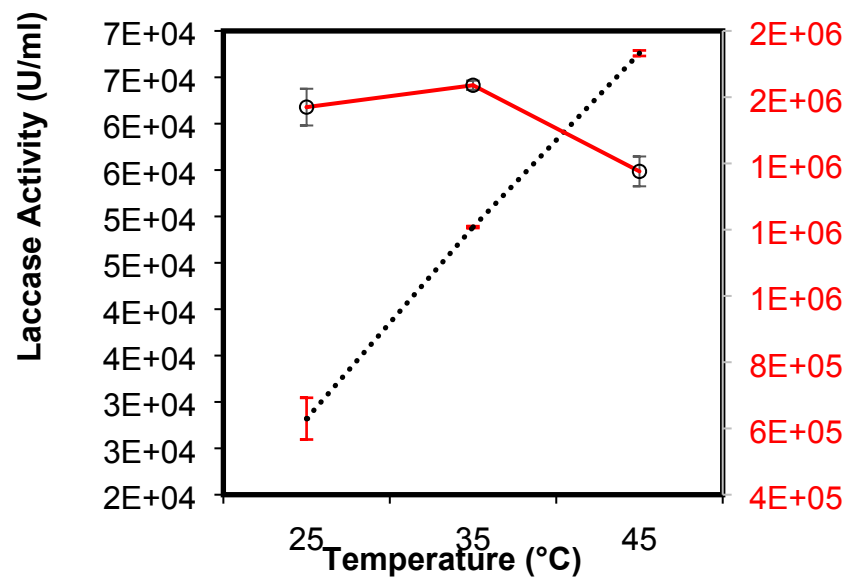


Figure S3 – Temperature dependence of FNTL (Dotted line) and TVL (Straight line). Enzymatic assays were done at the corresponding pH optima and at 25, 35 and 45 °C. Syringaldazine was used as the substrate.