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Supplementary material for: Detection and distinction of amino acids and post- translational modifications with gold nanojunctions

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1 Sensitivities maps

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	A	C	D	E	F	G	H	K	I	L	M	N	P	pS	pT	pY	Q	R	S	T	V	W	Y
A	0	2	5	1	1	1	1	1	0	0	1	0	0	0	1	1	0	0	1	1	1	1	1
C	1	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
D	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
E	1	5	10	0	1	3	1	1	1	0	1	1	1	1	1	1	2	1	2	1	0	1	1
F	20	54	100	11	0	34	0	4	16	13	2	21	20	23	6	0	28	15	32	6	7	0	1
G	1	1	3	1	1	0	1	1	1	1	1	1	1	0	1	1	0	1	0	1	1	1	1
H	16	42	78	8	0	26	0	3	13	10	1	16	15	17	5	0	21	12	25	5	5	0	0
K	4	13	24	2	1	8	1	0	3	2	1	4	4	5	1	1	6	3	7	1	1	1	1
I	0	3	7	0	1	1	1	1	0	0	1	0	0	1	1	1	1	0	1	1	1	1	1
L	1	4	9	0	1	2	1	1	0	0	1	1	1	1	1	1	1	0	2	1	1	1	1
M	8	21	41	4	1	13	1	1	6	5	0	8	8	9	2	1	11	6	12	2	2	1	0
N	0	2	5	1	1	1	1	1	0	1	1	0	0	0	1	1	0	0	1	1	1	1	1
P	0	2	5	1	1	1	1	1	0	0	1	0	0	0	1	1	0	0	1	1	1	1	1
pS	0	2	5	1	1	1	1	1	0	1	1	0	0	0	1	1	0	0	1	1	1	1	1
pT	3	9	17	1	1	5	1	0	2	1	1	3	2	3	0	1	4	2	5	0	0	1	1
pY	15	39	74	8	0	25	0	3	12	9	1	15	15	16	4	0	20	11	23	4	5	0	0
Q	0	1	4	1	1	0	1	1	1	1	1	0	0	0	1	1	0	1	0	1	1	1	1
R	0	3	7	0	1	2	1	1	0	0	1	0	0	1	1	1	1	0	1	1	1	1	1
S	0	1	3	1	1	0	1	1	1	1	1	0	1	0	1	1	0	1	0	1	1	1	1
T	3	9	17	1	1	5	1	0	2	1	1	3	3	3	0	1	4	2	5	0	0	1	1
V	2	8	16	1	1	5	1	0	2	1	1	2	2	3	0	1	4	2	4	0	0	1	1
W	17	44	82	9	0	28	0	3	13	10	1	17	16	19	5	0	23	13	26	5	5	0	1
Y	12	31	59	6	1	20	0	2	9	7	1	12	11	13	3	0	16	9	18	3	3	0	0

Fig. 1 We depicted the amino acid sensitivity for 7.0 Å device. In this table, we calculate the sensitivity using one amino acid as a reference. In the row, we have the reference amino acid and in the column the other. For 7.0 Å device the F is the best one.

	A	C	D	E	F	G	H	K	I	L	M	N	P	pS	pT	pY	Q	R	S	T	V	W	Y
A	0	8	6	11	5	3	2	7	11	11	15	3	4	7	15	12	6	9	1	5	7	12	7
C	14	0	24	5	6	19	11	3	5	5	12	9	7	3	11	6	3	2	12	5	2	6	3
D	5	11	0	13	8	2	6	10	13	13	16	7	8	10	16	14	9	12	5	9	10	14	10
E	24	6	38	0	13	31	20	9	0	0	10	18	14	10	9	2	10	3	22	12	9	2	9
F	7	4	15	8	0	11	4	2	8	8	14	3	1	2	13	9	2	6	5	1	3	9	2
G	3	10	2	12	7	0	4	8	12	12	16	5	6	8	16	13	8	11	4	7	9	13	8
H	2	7	9	10	3	5	0	5	10	10	15	1	3	5	14	11	5	8	1	4	6	11	5
K	10	2	19	6	3	15	7	0	6	6	13	6	3	0	12	8	0	4	9	2	0	8	0
I	24	6	38	0	13	31	20	9	0	0	10	18	15	10	9	2	10	3	22	12	9	2	10
L	24	6	38	0	13	32	20	10	0	0	10	18	15	10	9	2	10	3	22	12	9	2	10
M	72	34	100	21	49	87	63	41	21	21	0	58	51	41	3	17	42	28	67	47	40	17	41
N	3	6	11	9	2	7	1	4	9	9	15	0	2	4	14	10	4	8	2	3	5	10	4
P	6	5	13	8	1	10	3	3	8	8	14	2	0	3	14	9	3	6	4	1	3	9	3
pS	10	2	19	6	2	15	7	0	6	6	13	6	3	0	12	8	0	4	8	2	0	8	0
pT	61	28	86	17	41	75	54	34	17	16	2	49	43	34	0	13	35	23	57	39	33	13	34
pY	29	9	44	2	17	37	24	12	2	2	9	22	18	13	8	0	13	6	26	16	12	0	13
Q	9	3	18	7	2	14	7	0	7	7	13	5	3	0	13	8	0	4	8	1	1	8	0
R	18	2	30	3	8	24	15	5	3	3	12	12	10	5	11	4	6	0	16	8	5	4	5
S	1	8	7	10	4	4	1	6	10	10	15	2	4	6	15	11	6	9	0	5	6	11	6
T	7	4	16	8	1	12	5	2	8	8	14	3	1	2	13	9	1	6	6	0	2	9	2
V	10	2	20	6	3	15	8	0	6	6	13	6	4	0	12	7	1	4	9	2	0	7	0
W	29	9	44	2	17	37	25	12	2	2	9	22	18	13	8	0	13	6	26	16	12	0	13
Y	10	2	19	6	2	15	7	0	6	6	13	6	3	0	12	8	0	4	8	2	0	8	0

Fig. 2 We show the amino acid sensitivity for 5.0 Å device. In this table, we calculate the sensitivity using one amino acid as a reference. For 5.0 Å device the M is the best one.