

**Table S6. Transfer energy from planar membrane to pores.**

cyl: cylindrical pores. tor: toroidal pores.

Peptide	$\Delta\Delta W(\text{cyl-planar})$			$\Delta\Delta W(\text{tor-planar})$		
	30% Anionic	10% Anionic	Neutral	30% Anionic	10% Anionic	Neutral
<b>1amt</b>	-3.3±1.3	-3.1±1.5	-2.4±0.5	-4.4±0.5	-3.1±0.9	-3.4±0.3
<b>1d7n</b>	1.3±0.6	-1.7±1.0	-0.7±1.2	-2.3±0.8	-3.9±0.9	-2.7±1.6
<b>1f0d</b>	1.9±1.5	2.8±1.0	-0.8±2.5	-2.8±2.7	-0.8±2.3	-2.8±2.0
<b>1f0e</b>	2.0±2.2	2.7±2.9	-0.5±3.4	-3.7±2.3	-3.4±2.1	-3.6±3.0
<b>1f0f</b>	1.7±1.9	2.6±0.8	-3.6±0.5	-5.0±2.0	-2.4±1.0	-5.4±0.9
<b>1fry</b>	3.7±2.5	2.6±4.0	-2.4±4.7	-3.7±4.3	-4.2±3.0	-2.2±3.7
<b>1hu5</b>	3.4±5.2	-0.5±1.1	-1.1±1.9	-6.3±3.7	-1.8±7.7	-6.8±1.2
<b>1hu6</b>	1.0±2.4	-1.0±1.6	-1.2±2.5	-4.9±1.4	-5.1±1.4	-5.1±2.6
<b>1hu7</b>	2.0±2.0	-0.4±1.2	-2.6±2.9	-4.9±2.0	-5.2±1.4	-6.3±2.5
<b>1kv4</b>	4.5±2.8	1.5±3.3	0.2±1.3	-4.7±2.7	-1.6±6.8	-5.6±1.7
<b>1lyp</b>	13.8±1.2	12.1±1.8	3.1±1.2	-1.3±1.8	-0.4±2.3	-7.5±1.6
<b>1o53</b>	-6.6±1.3	1.1±0.8	-2.8±1.2	-2.6±0.6	-1.9±0.8	-4.8±0.7
<b>1p0g</b>	3.6±1.3	1.2±2.4	-0.2±1.8	-6.3±0.8	-2.8±1.3	-4.1±1.5
<b>1p0j</b>	2.7±3.0	-0.6±1.2	-2.4±0.4	-5.7±1.3	-5.0±0.6	-5.2±0.4
<b>1p0l</b>	1.7±2.8	-0.5±0.9	-1.9±0.8	-5.3±2.1	-4.9±0.7	-5.2±0.7
<b>1p0o</b>	2.1±2.5	-2.1±1.1	-0.2±1.7	-7.3±1.6	-6.0±0.3	-6.1±1.3
<b>1t51</b>	-1.8±1.8	0.9±1.7	-1.5±1.2	-1.0±0.8	-1.5±1.5	-2.7±1.5
<b>1t52</b>	2.6±0.8	2.0±1.0	-0.9±1.0	-2.2±1.3	-2.4±0.9	-3.7±0.9
<b>1t54</b>	1.5±0.9	0.5±1.0	-1.4±1.4	-2.6±0.3	-1.9±1.4	-2.8±0.9
<b>1t55</b>	6.1±1.3	1.7±0.3	-1.9±1.4	-1.5±1.2	-0.9±0.8	-3.2±1.0
<b>1vm2</b>	-1.7±1.1	-0.4±0.5	-2.1±0.4	-4.2±0.5	-2.5±0.5	-4.4±0.3
<b>1vm3</b>	-0.1±0.3	-2.0±1.0	-2.1±0.4	-3.1±0.3	-2.9±0.8	-4.2±0.4
<b>1vm4</b>	-0.6±0.5	-1.5±0.7	-2.7±0.5	-3.8±0.5	-3.9±1.1	-4.2±0.8
<b>1vm5</b>	-1.3±0.4	-1.0±0.9	-1.9±0.8	-3.4±0.4	-2.5±0.6	-3.8±0.8
<b>1xc0</b>	11.3±2.3	1.2±2.5	3.3±2.1	-3.3±2.7	1.9±2.8	2.1±1.7
<b>1xkm</b>	-8.2±3.5	4.3±2.1	-1.8±2.0	-2.1±2.9	-0.1±1.7	-4.0±1.8
<b>1z64</b>	4.4±1.6	2.6±2.2	-1.2±1.9	-1.2±0.5	0.0±0.7	-2.0±0.9
<b>1zrw</b>	-1.4±4.3	-1.3±4.0	-1.6±4.2	-6.4±5.5	-11.1±3.4	-5.0±4.1
<b>1zrx</b>	1.5±1.8	3.3±1.3	-1.9±1.7	-3.0±2.8	-1.3±3.1	-2.5±2.1
<b>2amn</b>	4.9±2.9	-0.2±2.9	-2.4±4.2	-4.1±3.8	-4.5±3.6	-6.0±1.7
<b>2czp</b>	-4.9±5.0	1.1±0.5	-2.1±0.9	-1.1±0.7	-2.0±0.6	-3.6±1.1
<b>2f3a</b>	3.1±1.2	0.7±0.9	-1.0±1.6	-5.3±1.4	-2.3±0.8	-4.3±0.9
<b>2fbs</b>	1.5±0.9	0.0±1.8	-2.4±1.2	-5.4±0.5	-4.1±1.2	-4.5±1.3
<b>2g9l</b>	6.4±2.6	3.4±1.2	1.1±1.3	-4.3±4.2	-1.6±2.3	-3.4±1.4
<b>2g9p</b>	1.5±1.2	0.9±3.1	0.7±4.1	-4.4±1.0	-3.9±2.3	-3.7±1.5

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Peptide	$\Delta\Delta W(\text{cyl-planar})$			$\Delta\Delta W(\text{tor-planar})$		
	30% Anionic	10% Anionic	Neutral	30% Anionic	10% Anionic	Neutral
<b>2gdl</b>	0.7 $\pm$ 3.1	2.4 $\pm$ 3.8	-2.5 $\pm$ 2.7	-1.8 $\pm$ 3.5	-0.7 $\pm$ 5.1	-3.1 $\pm$ 2.9
<b>2hfr</b>	6.6 $\pm$ 3.7	-2.8 $\pm$ 3.5	-2.8 $\pm$ 2.3	-4.5 $\pm$ 4.3	-4.3 $\pm$ 3.8	-3.1 $\pm$ 2.1
<b>2jmy</b>	0.4 $\pm$ 0.9	2.4 $\pm$ 1.1	-1.8 $\pm$ 1.1	-4.7 $\pm$ 0.4	-3.9 $\pm$ 0.6	-4.2 $\pm$ 0.9
<b>2jos</b>	1.2 $\pm$ 2.8	0.8 $\pm$ 3.2	1.8 $\pm$ 2.0	-3.0 $\pm$ 0.9	-2.2 $\pm$ 1.3	-4.1 $\pm$ 0.7
<b>2jpy</b>	0.0 $\pm$ 1.1	-1.6 $\pm$ 0.6	-0.8 $\pm$ 1.0	-2.9 $\pm$ 1.0	-1.4 $\pm$ 0.6	-3.5 $\pm$ 0.6
<b>2jq0</b>	-3.3 $\pm$ 0.7	-0.5 $\pm$ 1.8	-1.8 $\pm$ 1.0	-2.8 $\pm$ 1.1	-2.0 $\pm$ 0.9	-3.1 $\pm$ 2.4
<b>2jq1</b>	-1.0 $\pm$ 0.9	-0.8 $\pm$ 1.6	-1.3 $\pm$ 1.1	-2.6 $\pm$ 1.1	-2.1 $\pm$ 0.8	-4.8 $\pm$ 0.8
<b>2jr8</b>	7.1 $\pm$ 2.6	4.2 $\pm$ 3.3	-2.6 $\pm$ 1.1	-2.5 $\pm$ 1.4	-3.5 $\pm$ 2.2	-6.2 $\pm$ 1.7
<b>2k10</b>	6.8 $\pm$ 2.0	3.0 $\pm$ 1.1	-0.5 $\pm$ 5.4	-3.1 $\pm$ 1.2	-2.4 $\pm$ 0.5	-4.5 $\pm$ 1.3
<b>2k38</b>	0.6 $\pm$ 1.7	2.9 $\pm$ 3.1	-2.0 $\pm$ 1.1	-0.7 $\pm$ 3.9	-2.5 $\pm$ 3.3	-4.0 $\pm$ 2.6
<b>2k6o</b>	8.8 $\pm$ 1.4	7.3 $\pm$ 2.7	2.4 $\pm$ 3.5	-2.9 $\pm$ 2.2	-3.8 $\pm$ 4.1	-1.0 $\pm$ 4.6
<b>2k9b</b>	1.3 $\pm$ 3.0	3.7 $\pm$ 1.5	-1.6 $\pm$ 2.5	-1.7 $\pm$ 1.4	-2.3 $\pm$ 1.6	-3.6 $\pm$ 2.6
<b>2kam</b>	6.2 $\pm$ 0.8	-3.0 $\pm$ 1.8	-1.0 $\pm$ 2.0	-5.5 $\pm$ 1.8	-3.0 $\pm$ 1.5	-2.3 $\pm$ 0.9
<b>2l3i</b>	3.5 $\pm$ 4.7	5.8 $\pm$ 3.6	0.7 $\pm$ 3.2	-6.0 $\pm$ 3.1	-1.0 $\pm$ 4.4	-4.5 $\pm$ 2.9
<b>2lmf</b>	-4.3 $\pm$ 2.9	2.5 $\pm$ 1.4	-0.3 $\pm$ 2.2	-2.8 $\pm$ 2.0	-1.7 $\pm$ 3.4	-3.8 $\pm$ 3.1
<b>2mag</b>	3.6 $\pm$ 1.9	0.6 $\pm$ 1.3	-3.1 $\pm$ 2.4	-3.5 $\pm$ 2.8	-2.8 $\pm$ 1.4	-6.0 $\pm$ 0.7
<b>2mlt</b>	9.3 $\pm$ 2.0	-2.7 $\pm$ 2.2	-0.5 $\pm$ 3.3	-5.4 $\pm$ 1.2	-5.3 $\pm$ 2.5	-3.0 $\pm$ 3.0
<b>2pco</b>	-2.6 $\pm$ 2.2	0.1 $\pm$ 3.3	-2.8 $\pm$ 1.9	-4.6 $\pm$ 3.1	-7.1 $\pm$ 3.0	-6.6 $\pm$ 1.5