



**Supplementary Figure S1.** Temperature fluctuations of the culture medium following exposure to 2 THz.

**Supplementary Table S1.** Arithmetic mean of experimental results ( $\bar{X} \pm SEM$ )

Experimental project		C	R
Temperature		36.59 ± 0.34	37.37 ± 0.15
Western Blot	VAMP2	1.00 ± 0.05	1.10 ± 0.08
	SNAP	1.00 ± 0.04	1.34 ± 0.39
	rSec6	1.00 ± 0.07	1.16 ± 0.01 <sup>***</sup>
	Synaptophysin	1.00 ± 0.02	1.17 ± 0.12
	GluN1	1.00 ± 0.10	0.92 ± 0.12
	GluN2A	1.00 ± 0.25	1.05 ± 0.24
	GluN2B	1.00 ± 0.09	1.42 ± 0.12 <sup>*</sup>
	GluA1	1.00 ± 0.03	1.17 ± 0.06 <sup>*</sup>
	PSD95	1.00 ± 0.07	1.08 ± 0.03 <sup>*</sup>
	CaMKII	1.00 ± 0.17	1.03 ± 0.04
	nNOS	1.00 ± 0.06	1.25 ± 0.04 <sup>*</sup>
CREB	1.00 ± 0.09	1.26 ± 0.04 <sup>**</sup>	
Neurotransmitter	Asp	1.00 ± 0.20	0.74 ± 0.34
	Glu	1.00 ± 0.05	1.15 ± 0.03 <sup>*</sup>
	Gly	1.00 ± 0.16	0.59 ± 0.15 <sup>*</sup>
Ca <sup>2+</sup> concentration	Cytoplasm	1.00 ± 0.03	0.86 ± 0.03 <sup>*</sup>
	Endoplasmic reticulum	1.00 ± 0.09	1.52 ± 0.18 <sup>*</sup>
	Mitochondria	1.00 ± 0.13	1.73 ± 0.07 <sup>**</sup>
Voltage-gated calcium channel activity	-10 mV	-9.90 ± 1.16	-13.29 ± 1.22 <sup>*</sup>
	0 mV	-14.26 ± 1.89	-18.49 ± 1.91 <sup>*</sup>

**Note.** Compared to the C group, <sup>\*</sup> $P < 0.05$ , <sup>\*\*</sup> $P < 0.01$ , <sup>\*\*\*</sup> $P < 0.001$ .