

Supplementary Materials for
**Transcranial photobiomodulation enhances visual working memory capacity
in humans**

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This PDF file includes:

Figs. S1 to S3

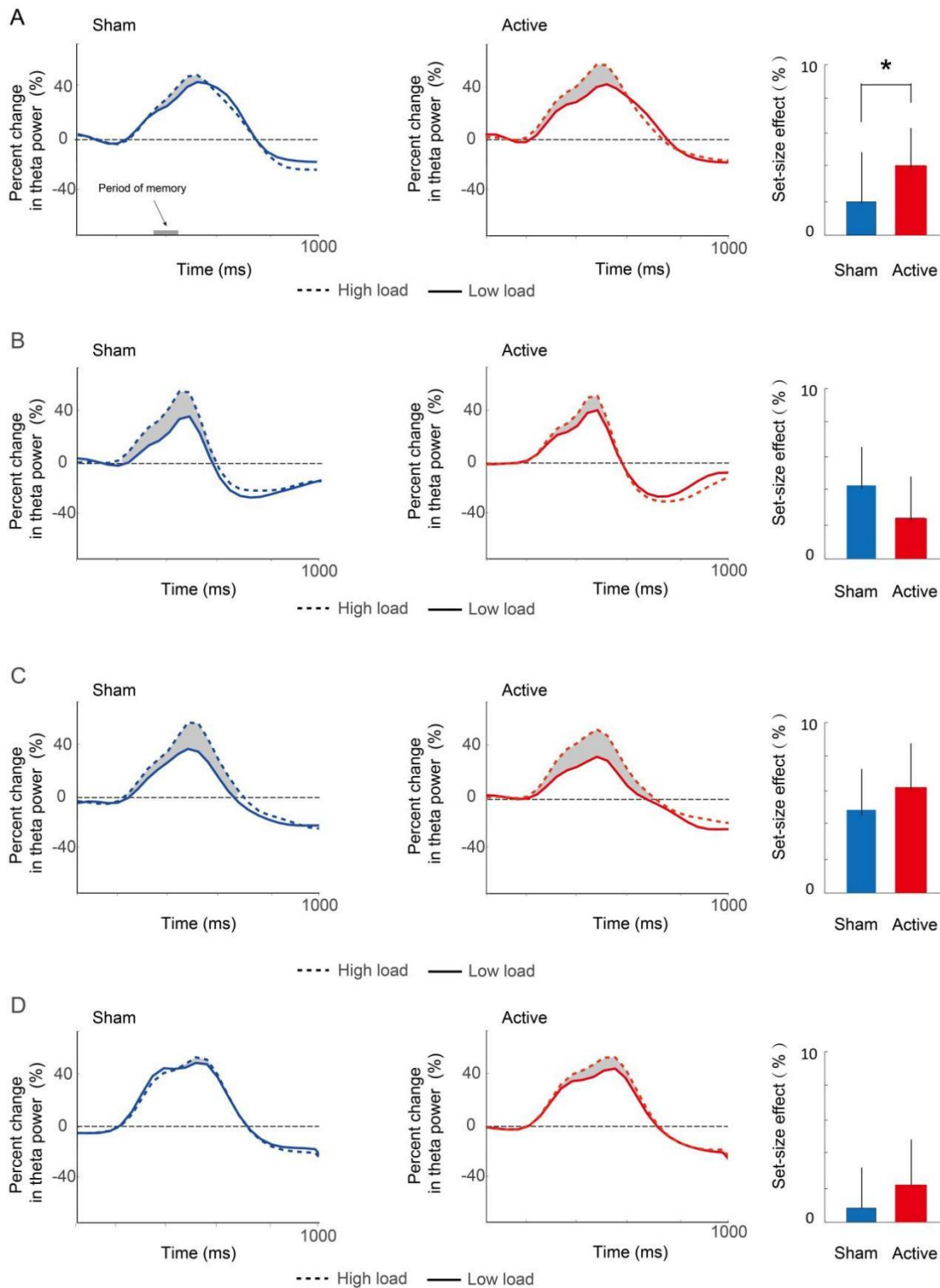


Figure S1. Theta band ERS results for all experiments. The theta band ERS for two sessions (active-tPBM and sham-tPBM) in Experiment 1 (A), Experiment 2 (B), Experiment 3 (C), and Experiment 4 (D). Averaged ERS in theta power was observed at the middle frontal electrodes after the onset of the memory array indicated by the grey box. Shading indicates the set-size effect of theta ERS. Right panel, mean set-size effect of theta power enhancement during the retention interval. Error bars represent SEM. * $p < 0.05$

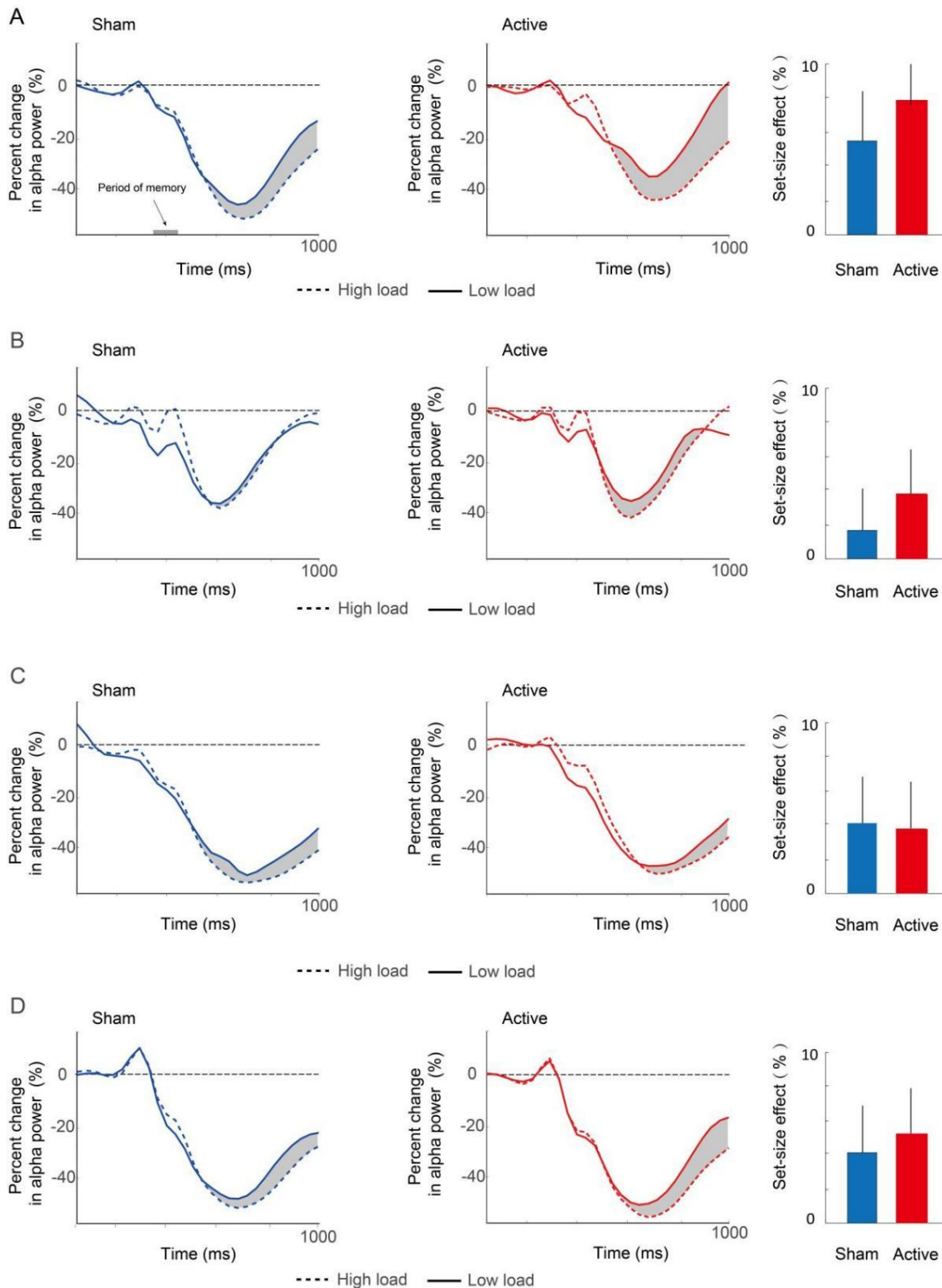


Fig. S2. Alpha band ERD results for all experiments. Alpha band ERD for two sessions (active-tPBM, sham-tPBM) in Experiment 1 (A), Experiment 2 (B), Experiment 3 (C), and Experiment 4 (D). Averaged ERD in alpha power was observed at the parieto-occipital electrodes after the onset of the memory array, as indicated by the grey box. Shading indicates the set-size effect of alpha ERD. Right panel, mean set-size effect of alpha band ERD during the retention interval. Error bars represent SEM. No significant difference in the set-size effect of alpha band ERD between active and sham tPBM was found in each experiment ($ps > 0.150$).

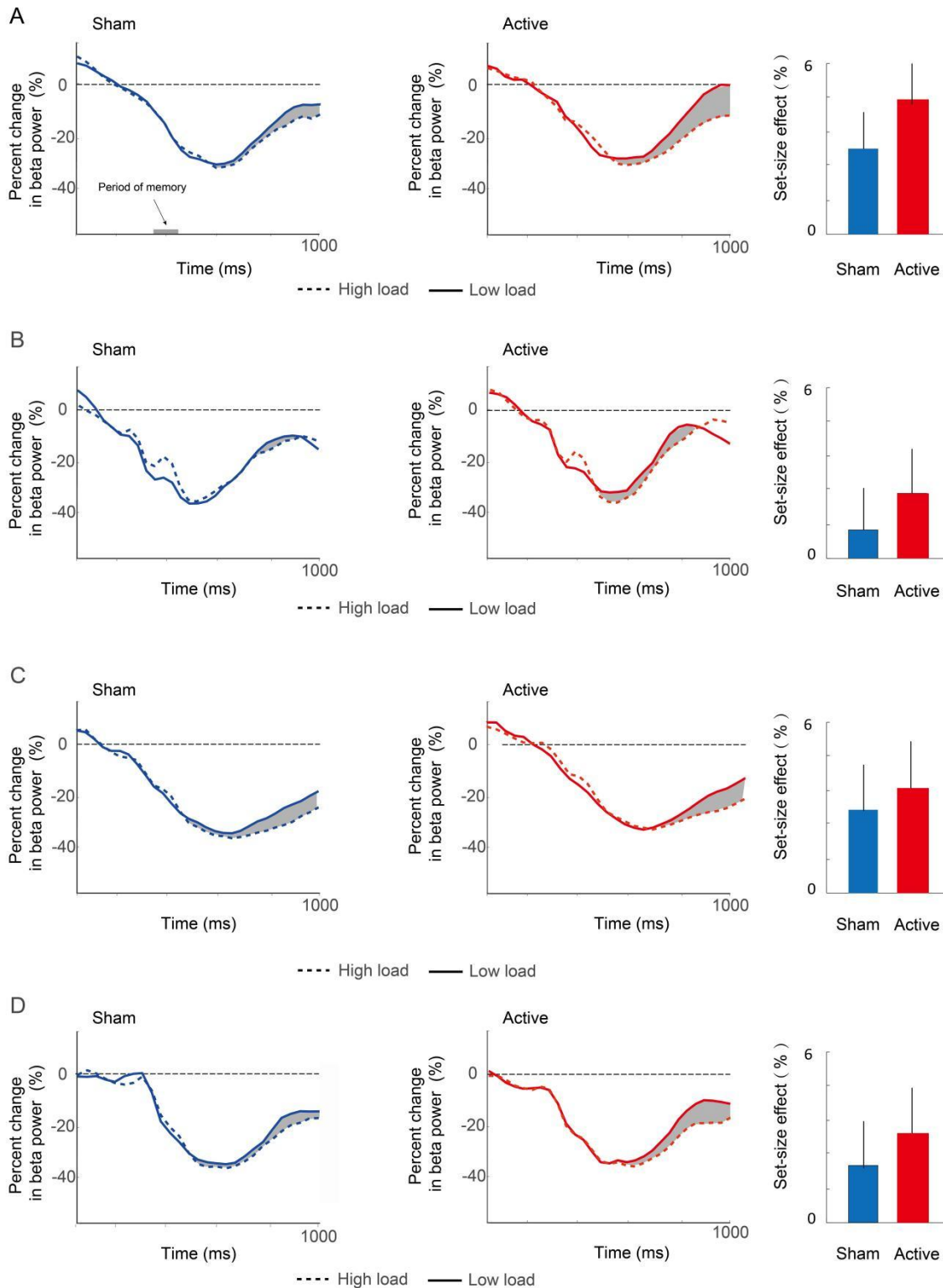


Figure S3. Beta band ERD results for all experiments. The beta band ERD for two sessions (active-tPBM and sham-tPBM) in Experiment 1 (A), Experiment 2 (B), Experiment 3 (C), and Experiment 4 (D). Averaged ERD in beta power was observed at the middle frontal electrodes after the onset of the memory array indicated by the grey box. Shading indicates the set-size effect of beta ERD. Right panel, mean set-size effect of beta power suppression during the retention interval. Error bars represent SEM. No significant difference in the set-size effect of beta ERD between active and sham tPBM was found in each experiment ($ps > 0.227$).