Cerebral Mechanisms Underlying the Effects of Music during a Fatiguing Isometric Ankle-Dorsiflexion Task

*****Figure 1*****

Figure 1. Experimental set-up of the present study. Figure 1A: Force transducer used to quantify the level of pressure generated by the participant against the load cell; Figure 1B: Participant wearing the EEG cap and headphone; Figure 1C: Participant's vision from outside the Faraday cage; the cage was assembled to prevent the electrical interference of external devices.

*****Figure 2*****

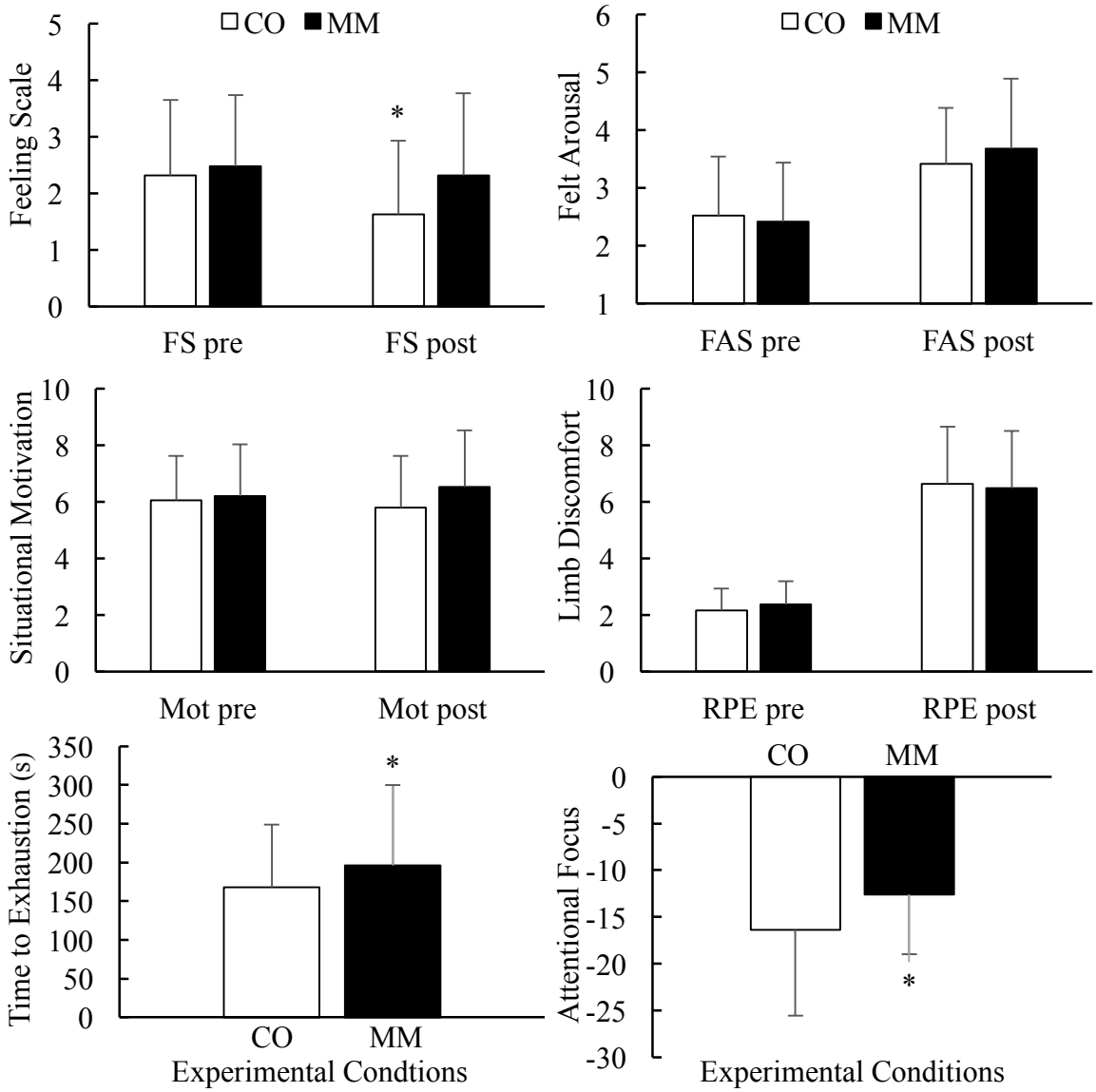

Figure 2. Psychological responses and exercise performance compared between CO and MM. Means and standard deviations are presented. *Note.* CO = Control condition; MM = Music condition; FS = Feeling Scale; FAS = Felt Arousal Scale; MOT = Situational motivation; CR10 = Limb discomfort; * = $p < .05$.

*****Figure 3*****

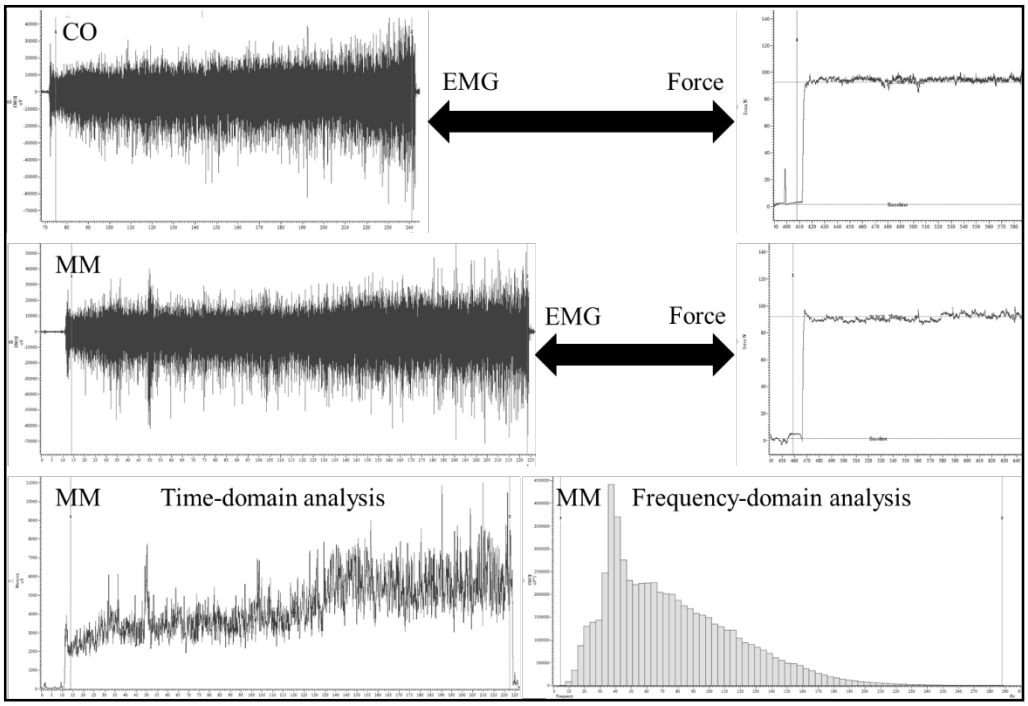

Figure 3. Electromyographic measures taken in the present study. Music prolonged time-to-exhaustion and maintained the output frequency and recruitment of motor units during the execution of a fatiguing motor task. *Note.* CO = Control condition; MM = Music condition; EMG = Electromyography.

*****Figure 4*****

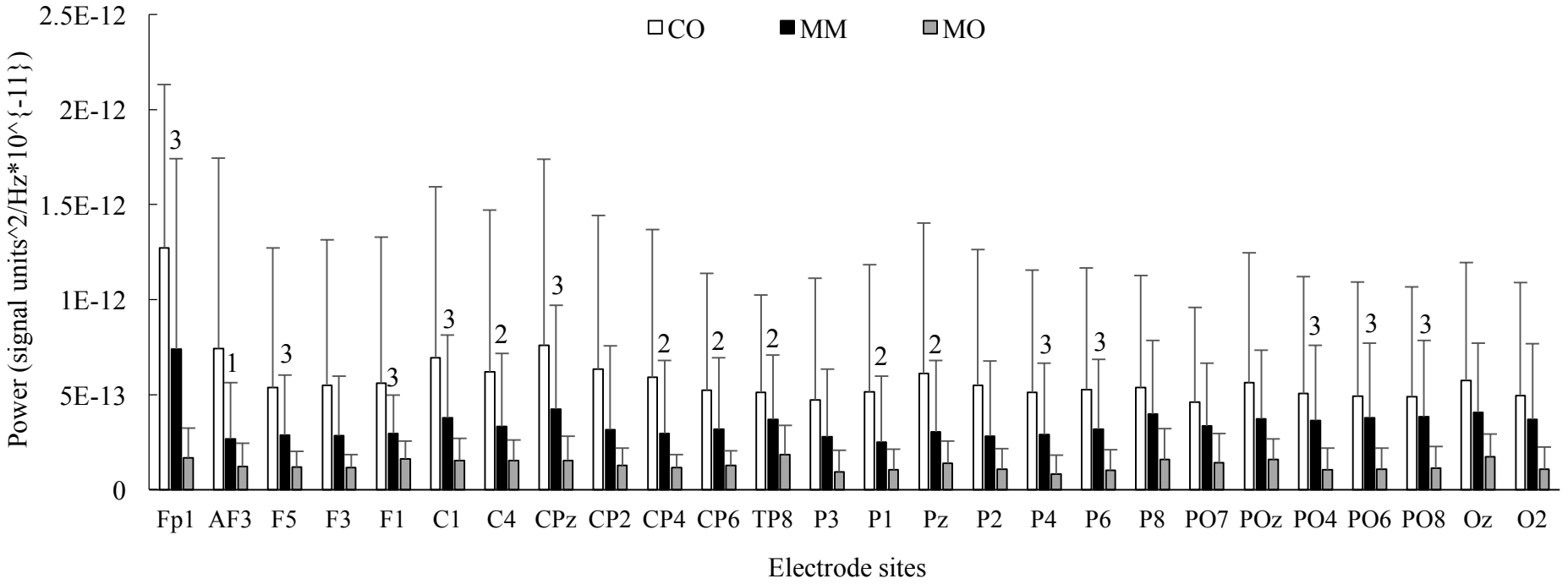

Figure 4. Theta rhythm power results for each electrode which differences were statistically significant ($p < .05$) between CO, MM, and MO (Bonferroni adjustment). Means and standard deviation are presented.
Note. CO = Control condition; MM = Music condition; MO = Music-Only condition; 1 = MM differed statistically from CO and MO; 2 = MM differed statistically from CO; 3 = MM differed statistically from MO; the absence of data label indicates that CO differed statistically from MO.

*****Figure 5*****

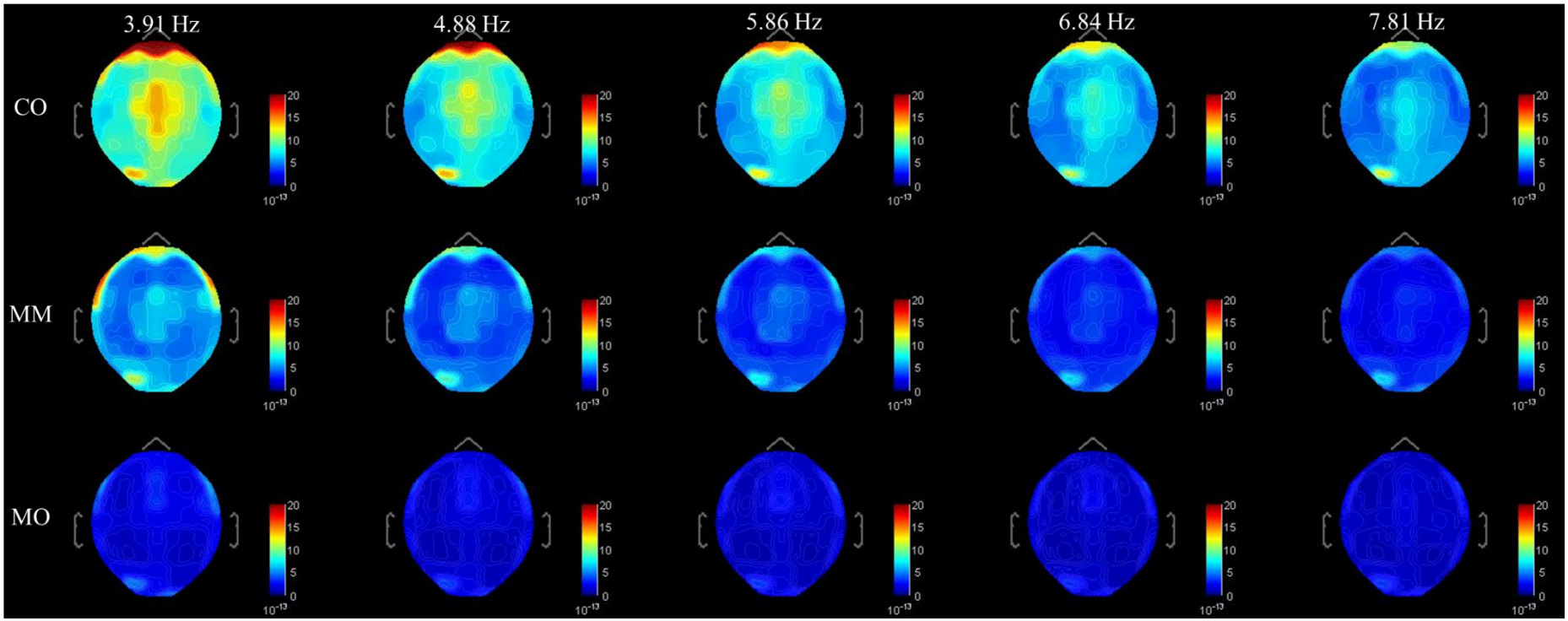

Figure 5. Low-frequency components (theta waves) of the power spectrum presented for CO, MM, and MO. *Note.* The colored scale indicates the power of the band frequency (power [signal units^2/Hz*10^{-11}]); CO = Control condition; MM = Music condition; MO = Music-only condition.