

Supporting Information

Molecular Dynamics Simulation on the effect of self-resistance electric heating on carbon fiber surface chemical properties and fiber/PP interfacial behavior

Qingzhu He ¹, Jiaqing Liu ¹, Muhan Zhang ¹, Zhanyu Zhai ^{1,2,*}, Bingyan Jiang ^{1,2}

¹ College of Mechanical and Electrical Engineering, Central South University, Changsha, 410083, China;

² State Key Laboratory of High Performance and Complex Manufacturing, Central South University, Changsha, 410083, China;

* Correspondence: zhanyuzhai@csu.edu.cn

Figure S1 shows the temperature field distribution of carbon fiber fabric under SRE heating with the current intensity of 12 A, 16 A, 20 A and 24 A. As seen, the electric current of 12 A, 16 A, 20 A and 24 A at steady stage corresponds the surface temperature of carbon fiber fabrics of $158\pm 2.9^{\circ}\text{C}$, $212\pm 3.2^{\circ}\text{C}$, $270\pm 4.9^{\circ}\text{C}$ and $332\pm 5.4^{\circ}\text{C}$ respectively, which has been added in the revised manuscript.

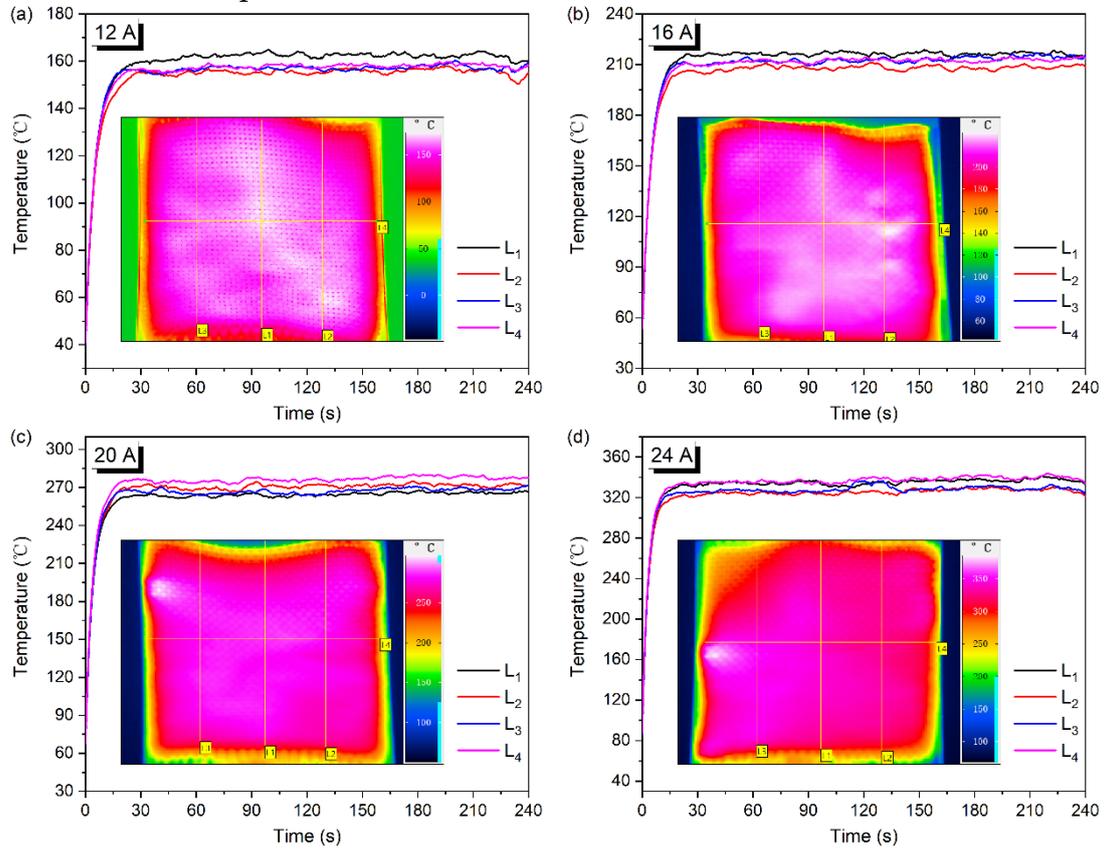


Figure S1. Temperature field distribution of carbon fiber fabric under SRE heating with different current intensity.