

Characterization of Thermal Conductivity: The thermal conductivity was measured with samples $\Phi 39\sim 42 \times 15$ mm using Hot Disk TPS2500 apparatus by the 5465 sensor. The measurement was conducted after keeping the target pressure for 1h. Each measurement was conducted for not less than 3 times.



Fig. S1 Thermal conductivity measurement graph of N-doped graphene aerogels with 3 mg/ml GO suspension at 5Pa (a ~ c) and atmospheric pressure (d ~ f)



Fig. S2 Thermal conductivity measurement graph of N-doped graphene aerogels with 6 mg/ml GO suspension at 5Pa (a ~ c) and atmospheric pressure (d ~ f)



Fig. S3 Thermal conductivity measurement graph of N-doped graphene aerogels with 9 mg/ml GO suspension at 5Pa (a ~ c) and atmospheric pressure (d ~ f)

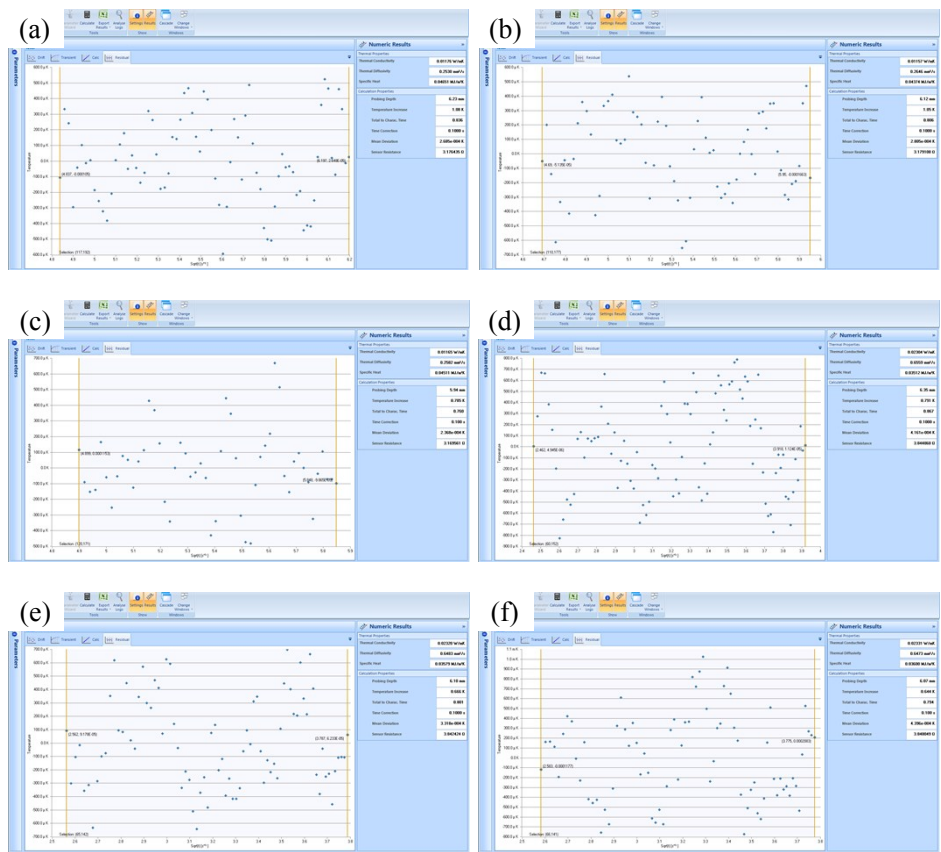


Fig. S4 Thermal conductivity measurement graph of N-doped graphene aerogels with 12 mg/ml GO suspension at 5Pa (a ~ c) and atmospheric pressure (d ~ f)

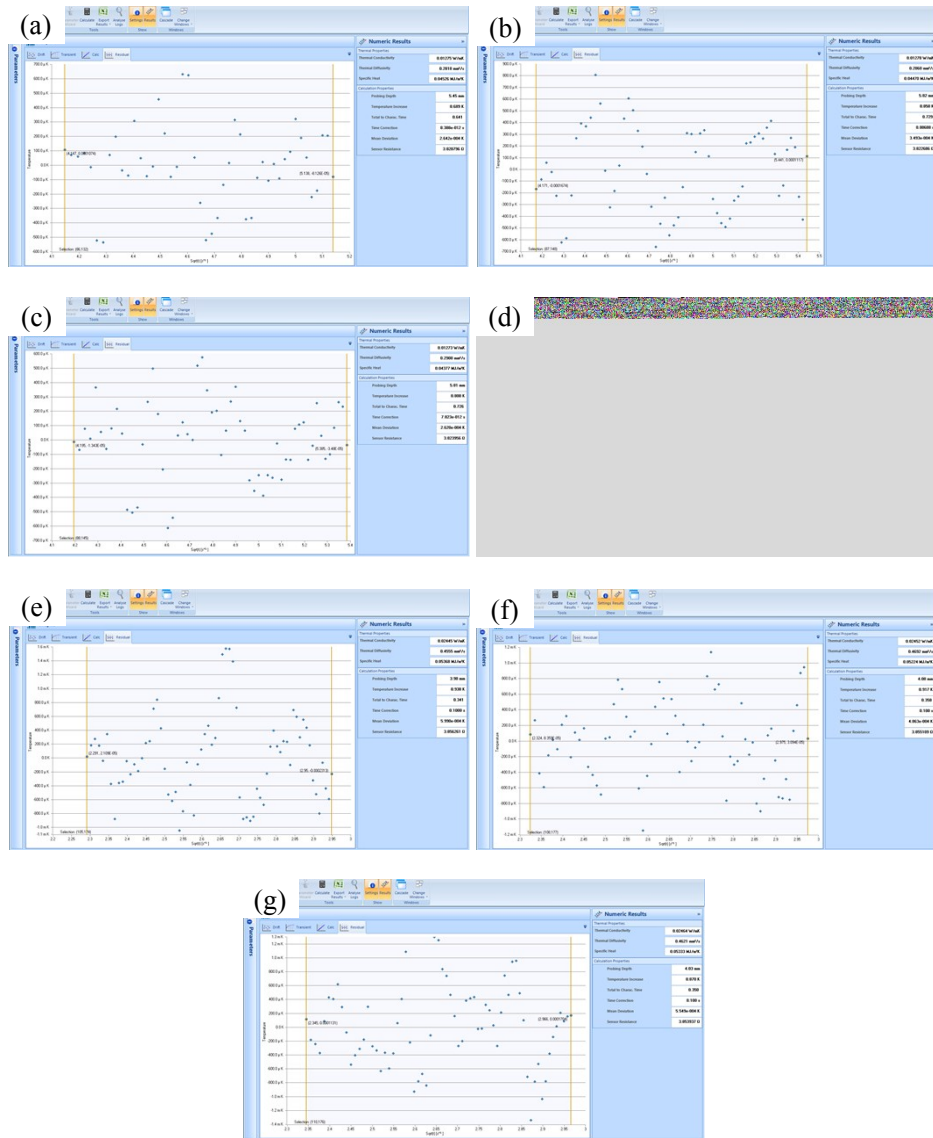


Fig. S5 Thermal conductivity measurement graph of N-doped graphene aerogels with 15 mg/ml GO suspension at 5Pa (a ~ c) and atmospheric pressure (d ~ g)

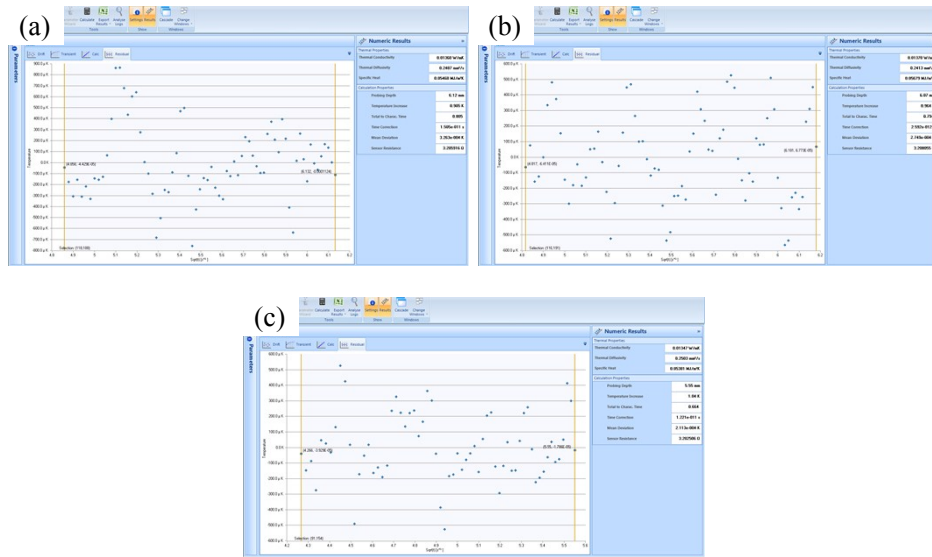


Fig. S6 Thermal conductivity measurement graph of N-doped graphene aerogels with 1.2 g PPD at 5Pa

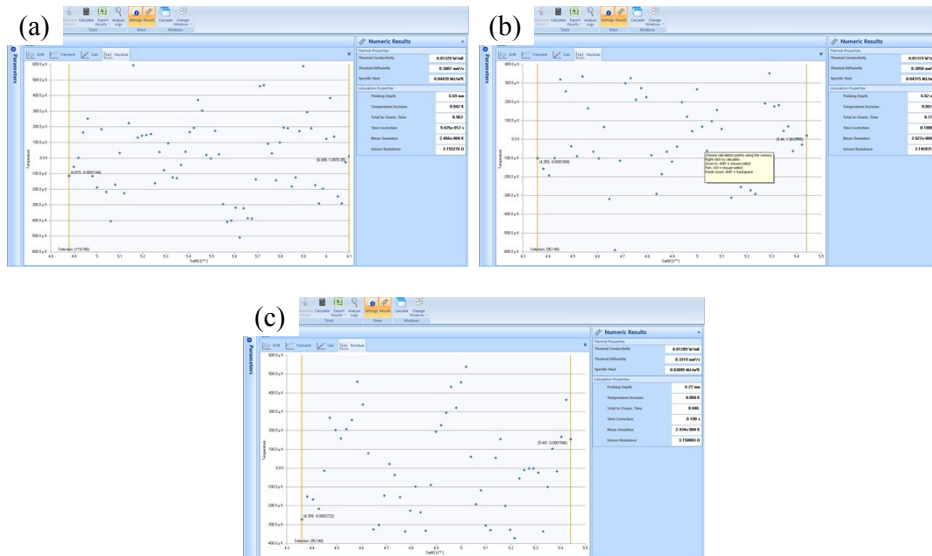


Fig. S7 Thermal conductivity measurement graph of N-doped graphene aerogels with 2.4 g PPD at 5Pa

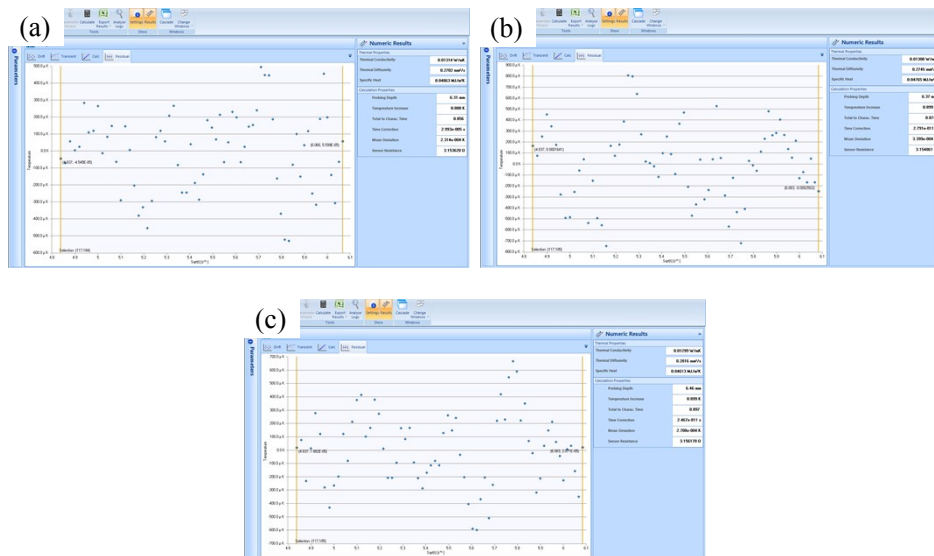


Fig. S8 Thermal conductivity measurement graph of N-doped graphene aerogels with 3.6 g PPD at 5Pa



Fig. S9 Thermal conductivity measurement graph of N-doped graphene aerogels with 4.8 g PPD at 5Pa

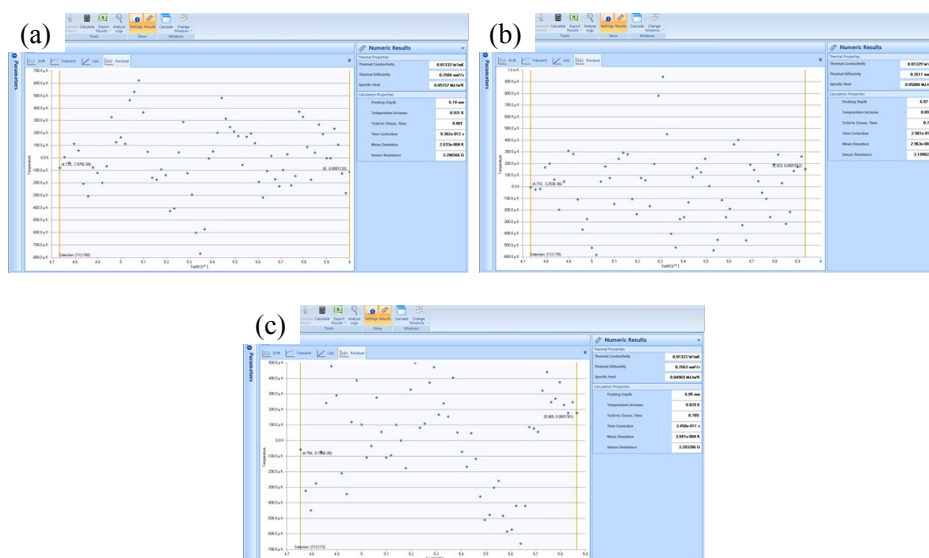


Fig. S10 Thermal conductivity measurement graph of N-doped graphene aerogels with 6.0 g PPD at 5Pa

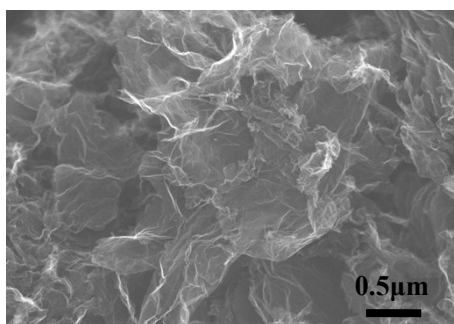


Fig. S11 SEM micrograph of as-prepared N-doped graphene aerogels with 3mg/ml GO suspension