

Electronic Supplementary Information

Mechanical synthesis of chemically bonded phosphorus-graphene hybrid as high-temperature lubricating oil additive

X. H. Wu, K. L. Gong, G. Q. Zhao, W. J. Lou, X. B. Wang, and W. M. Liu

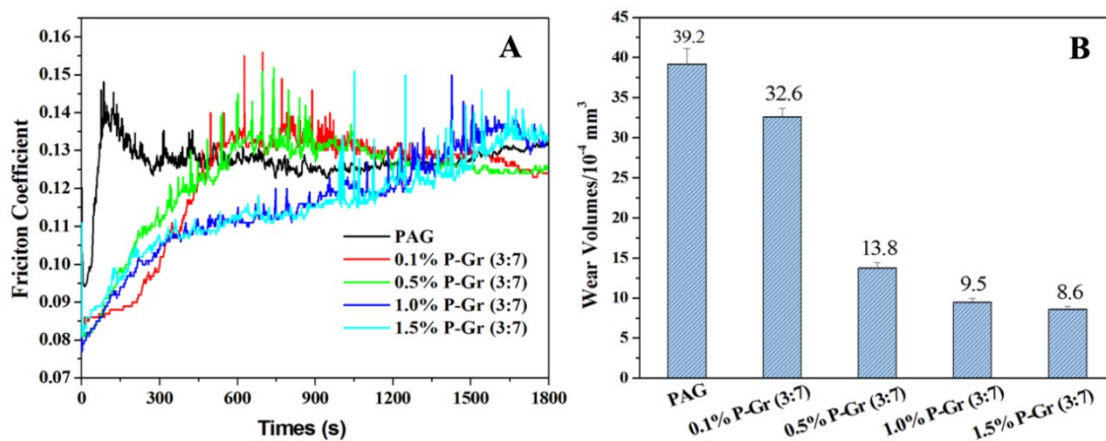


Fig. S1. (A) Friction coefficient and (B) Wear volumes of the discs lubricated by PAG and PAG containing different contents of P-Gr (3:7) at 100 °C (SRV load, 100 N; duration, 30 min; stroke, 1 mm; frequency, 25 Hz).

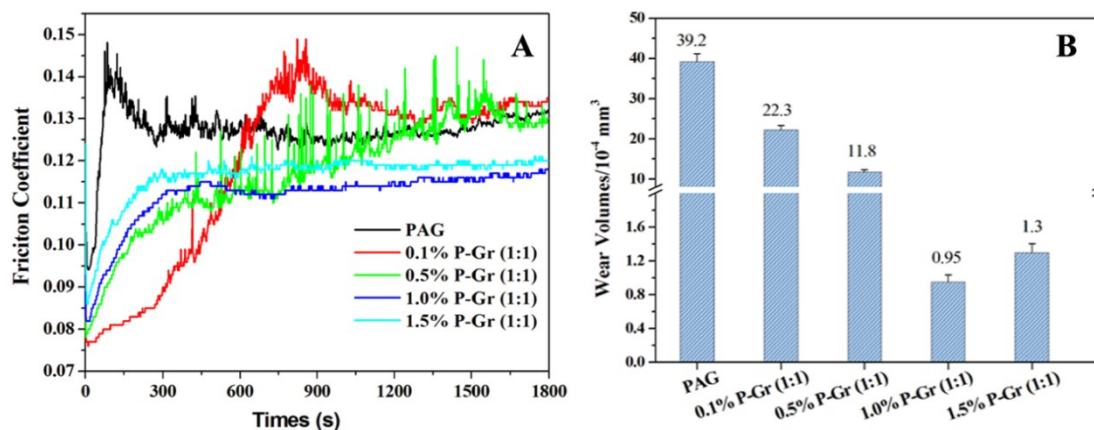


Fig. S2. (A) Friction coefficient and (B) Wear volumes of the discs lubricated by PAG and PAG containing different contents of P-Gr (1:1) at 100 °C (SRV load, 100 N; duration, 30 min; stroke, 1 mm; frequency, 25 Hz).

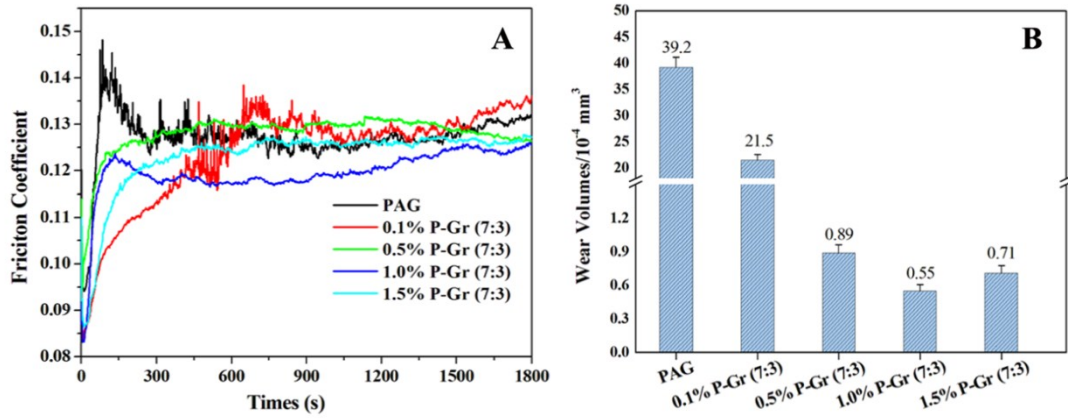


Fig. S3. (A) Friction coefficient and (B) Wear volumes of the discs lubricated by PAG and PAG containing different contents of P-Gr (7:3) at 100 °C (SRV load, 100 N; duration, 30 min; stroke, 1 mm; frequency, 25 Hz).