

Study of the vibration of friction wave on the drawn MoS₂-Nylon 6 sheet

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Vibration of friction wave of MoS₂-filled nylon 6 sheet under high drawing were studied. Drawing MoS₂-filled nylon 6 sheet was made by single-stage uniaxial drawing process. Waves of the friction coefficient were measured on a block-on-ring tester where sliding occurred at a speed of 0.13m/s under 30lb. The curves of friction coefficient of drawing MoS₂-Nylon have a similar tendency with non-drawing MoS₂-Nylon and pure nylon. Wave vibration relate to the surface condition and hardness. Because that the rough surface of fretting damage behavior was displayed in drawing MoS₂-Nylon sheet. This means that the surface of drawing MoS₂-Nylon is more rough and hard than non-drawing MoS₂-Nylon but tensile strength of drawing MoS₂-Nylon is still better.