

Comparative study of the thermal behavior of the tribological couples copper-graphite and graphite-graphite

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Abstract : The dry tribological behavior copper-graphite and graphite-graphite pairs in sliding contact is studied. The tests were carried out with a pin-on-disc tribometer in ambient air. The experimental results show the evolution of the temperature as a function of the normal load and the sliding speed. These results show that these two parameters have a significant influence on the variation of the average contact temperature. The discussion of results is based on observations by optical microscope and interfacial phenomena resulting from friction

Keywords : Temperature, contact, friction, copper, graphite. normal load, sliding speed