

### Enhancement of thermal conductivity in silver-ethylene glycol nanofluid

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A hot wire method is commonly used to measure the thermal conductivity of fluid. Thermal conductivity can be calculated from a temperature change of wire with time. The different concentrations of silver nanofluid (1,000~10,000 ppm) were prepared to investigate the improvement of thermal conductivity, and compare with the thermal conductivity of pure fluid. The improvement in thermal conductivities of 1,000, 5,000, and 10,000 ppm silver nanofluids was 10 %, 16 %, and 18 %, respectively. However, 10,000 ppm silver nanofluid did not show significant enhancement of thermal conductivity, as compared with 1,000 and 5,000 ppm silver nanofluid.