

Table 1: Thermophysical properties of nanoparticles (  $Al_2O_3$ ,  $Cu$ , and  $TiO_2$ ) and base fluid ( $C_2H_6O_2$ )

Physical Properties	$C_2H_6O_2$	$Al_2O_3$	$Cu$	$TiO_2$
$\rho$	1115	3970	8933	4250
$C_p$	2430	765	385	686.2
$\kappa$	0.253	40	400	8.9538
$\sigma$	0.107	$3.5 \times 10^7$	$5.96 \times 10^7$	$1.0 \times 10^{-12}$