

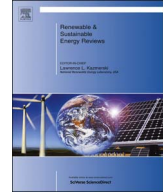


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Recent advancement of nanofluids in engine cooling system



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ABSTRACT

Engine cooling system using nanofluids provides a new foundation for technological integration and innovation. Nanofluids are suitable coolant due to its high thermal diffusivity and can be applied to any system that needs a quick response to thermal changes such as vehicle engine. The presence of nanoparticles in nanofluids contributes better flow of mixing and higher thermal conductivity compared to pure fluid. The current review begins with the overview of preparation methods and thermal conductivity improvement of fluids with nanoparticles. Then, the thermal performance of vehicle engine using nanofluids is highlighted. It has also given emphasis on the major applications of nanofluids in radiator system and as lubricants for improving heat removal efficiency from vehicle engine.