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METHOD OF PRODUCING WELL DISPERSED AND STABLE NANOFUID FOR HEAT TRANSFER APPLICATIONS



▶ MORE INFORMATION

MEGA-TREND

- **Chemicals and Materials**

TECHNOLOGY READINESS LEVEL (TRL)

- **TRL 4**

PATENT/ GRANTED NUMBER

- **PI 2020002407**

▶ TECHNOLOGY OVERVIEW

The present invention relates to a method of preparing a stable and well-dispersed ZnO-EG/DW based nanofluid that utilizes ethylene glycol and distilled water without the use any kind of surfactant, dispersing and stabilizing agent. The method includes the steps of diluting a zinc acetate precursor in a blend of ethylene glycol and distilled water solution as a first solution; mixing a strong base sodium hydroxide in ethylene glycol-distilled water mixture; ultrasonicing the mixture to obtain a reaction mixture; separating zinc oxide (ZnO) nanoparticles by washing, drying and calcination;

and dispersing ZnO spheres in ethylene glycol-distilled water solution to obtain zinc oxide-ethylene glycol/distilled water (ZnO-EG/DW) nanofluid.

CONTACT US!

Dr. Lee Ching Shya

UMCIE Business Officer

Email: leecs@um.edu.my

Phone: +603 – 7967 7351 / 7352