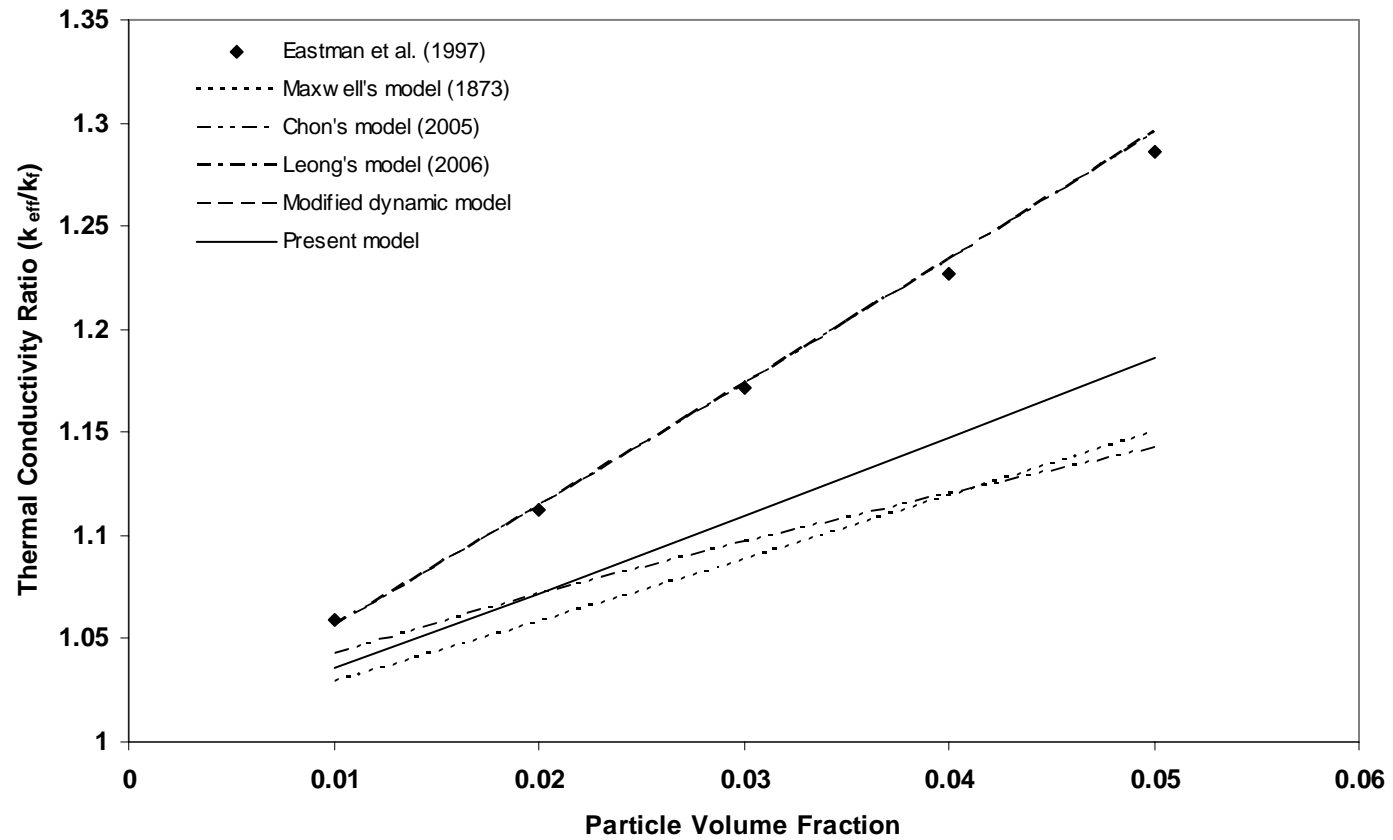
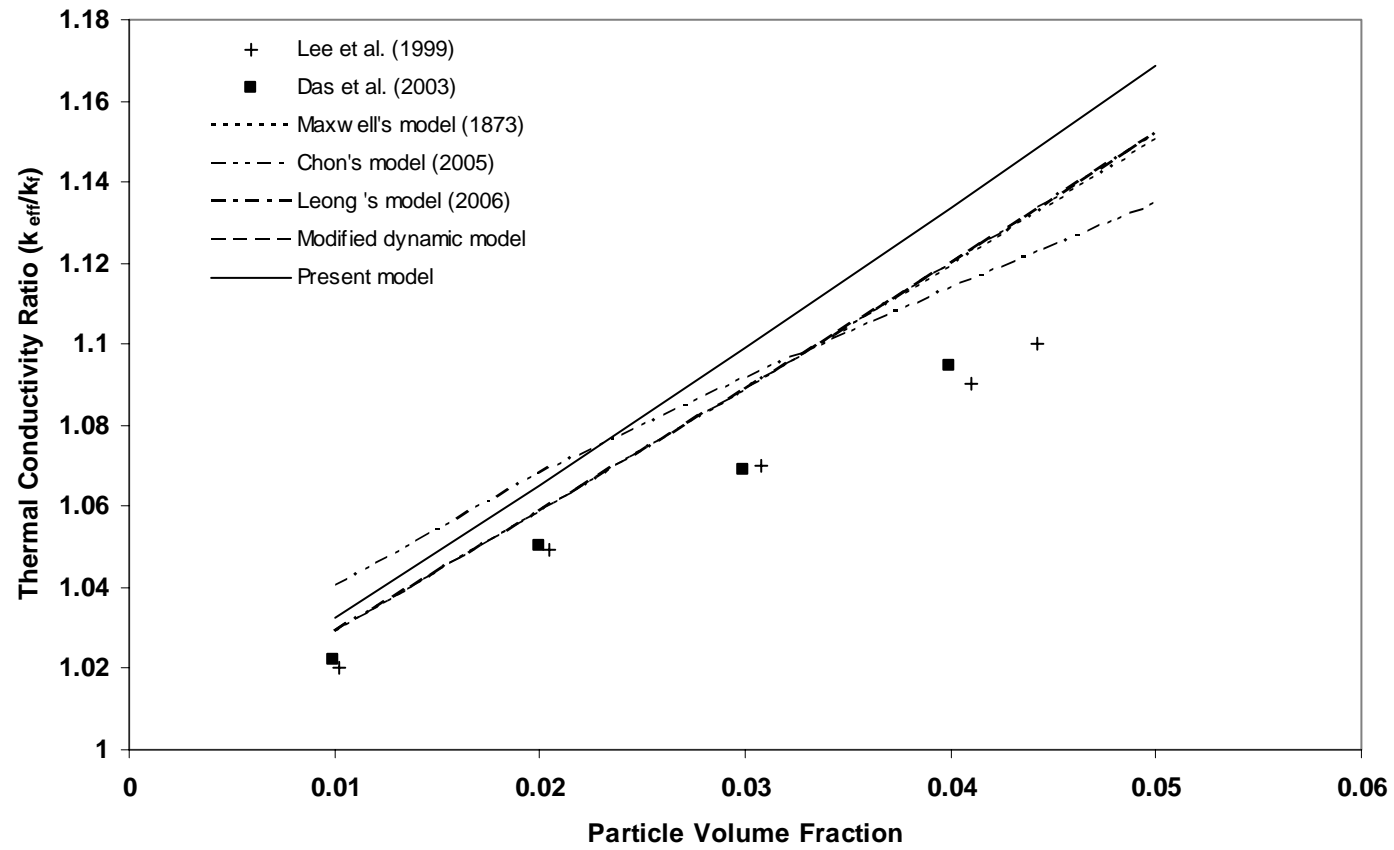


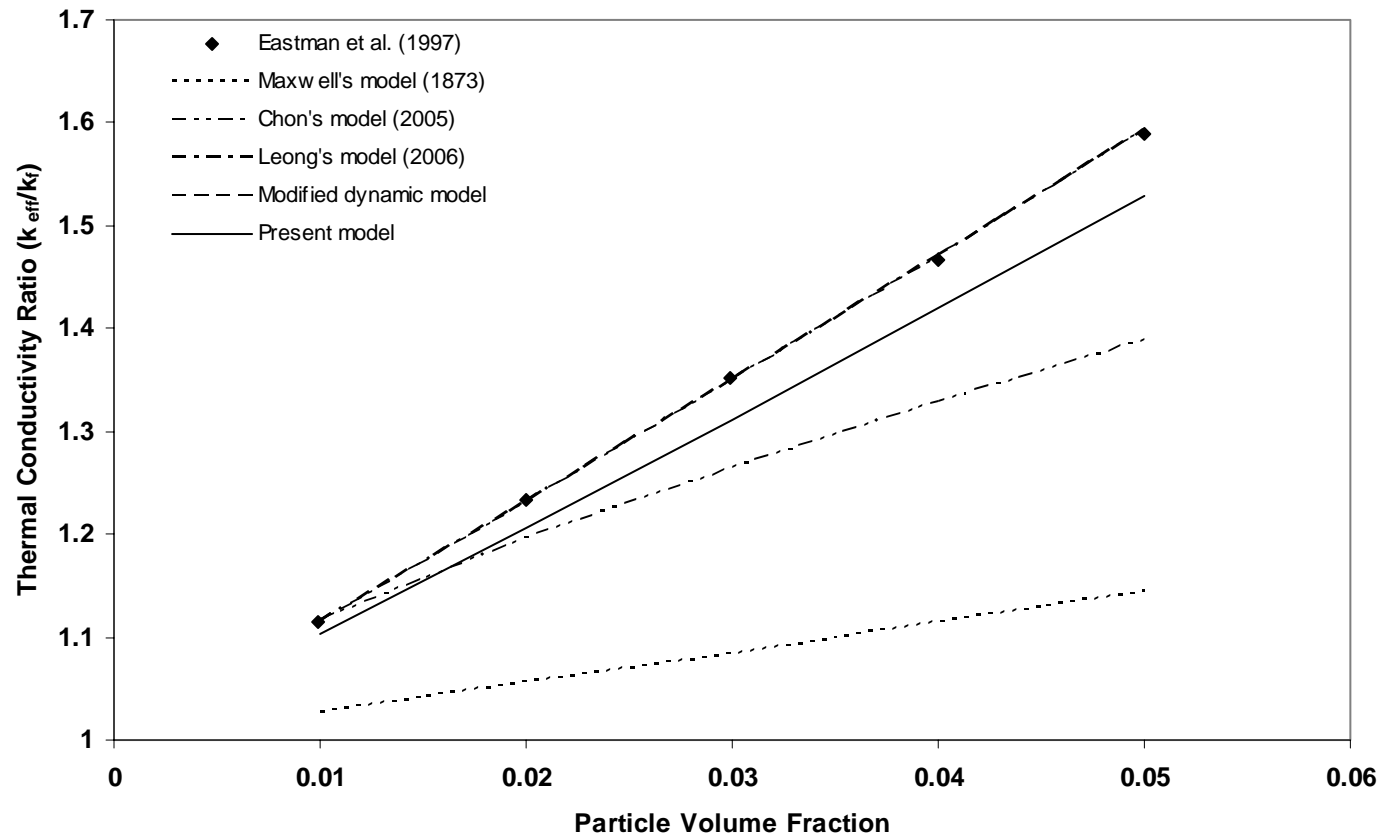
**Figure 5** Thermal conductivity models for  $Al_2O_3$  nanoparticles in water base fluid at room temperature (particle diameter = 13 nm) – Particle Volume Fraction Dependent



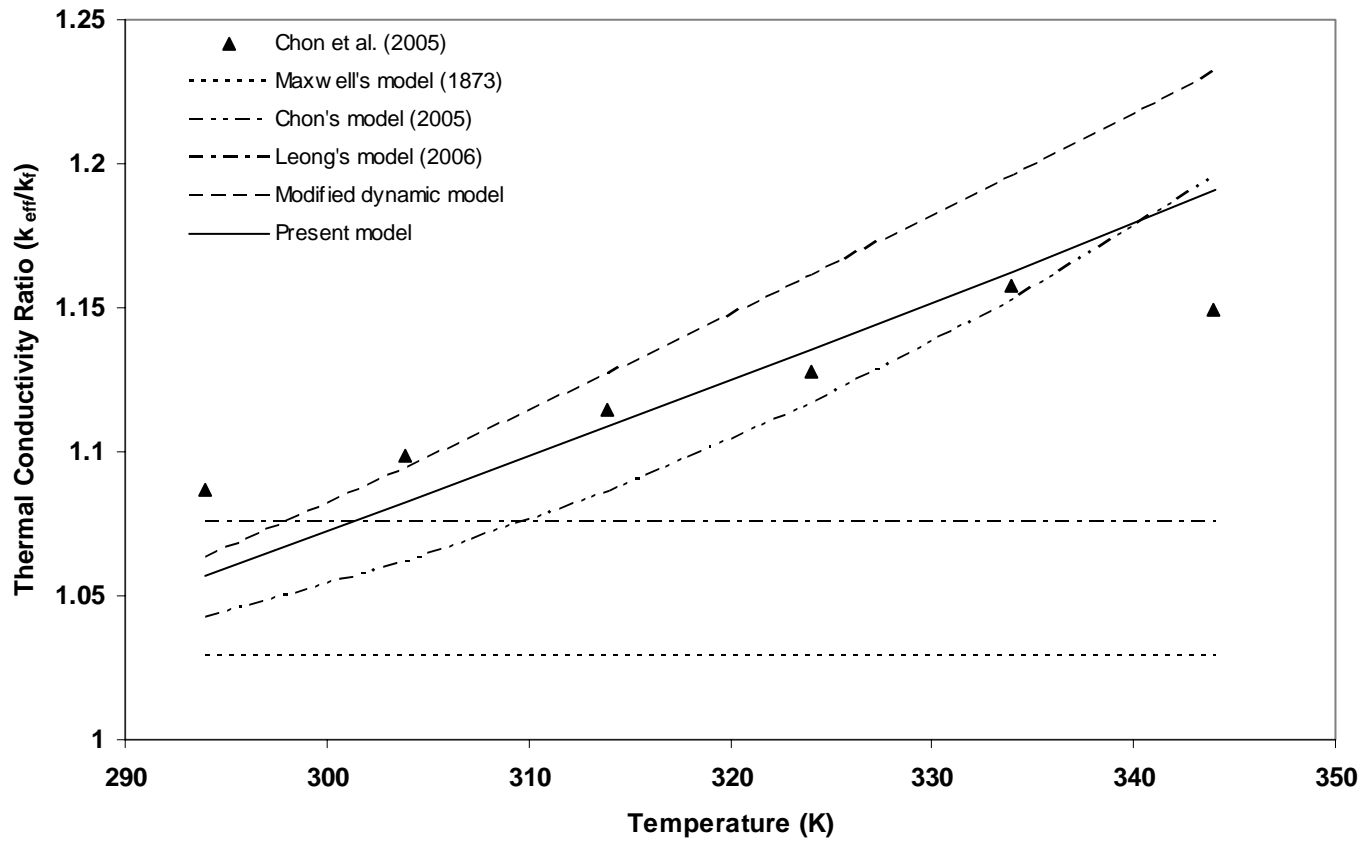
**Figure 6** Thermal conductivity models for  $Al_2O_3$  nanoparticles in water base fluid at room temperature (particle diameter = 33 nm) – Particle Volume Fraction Dependent



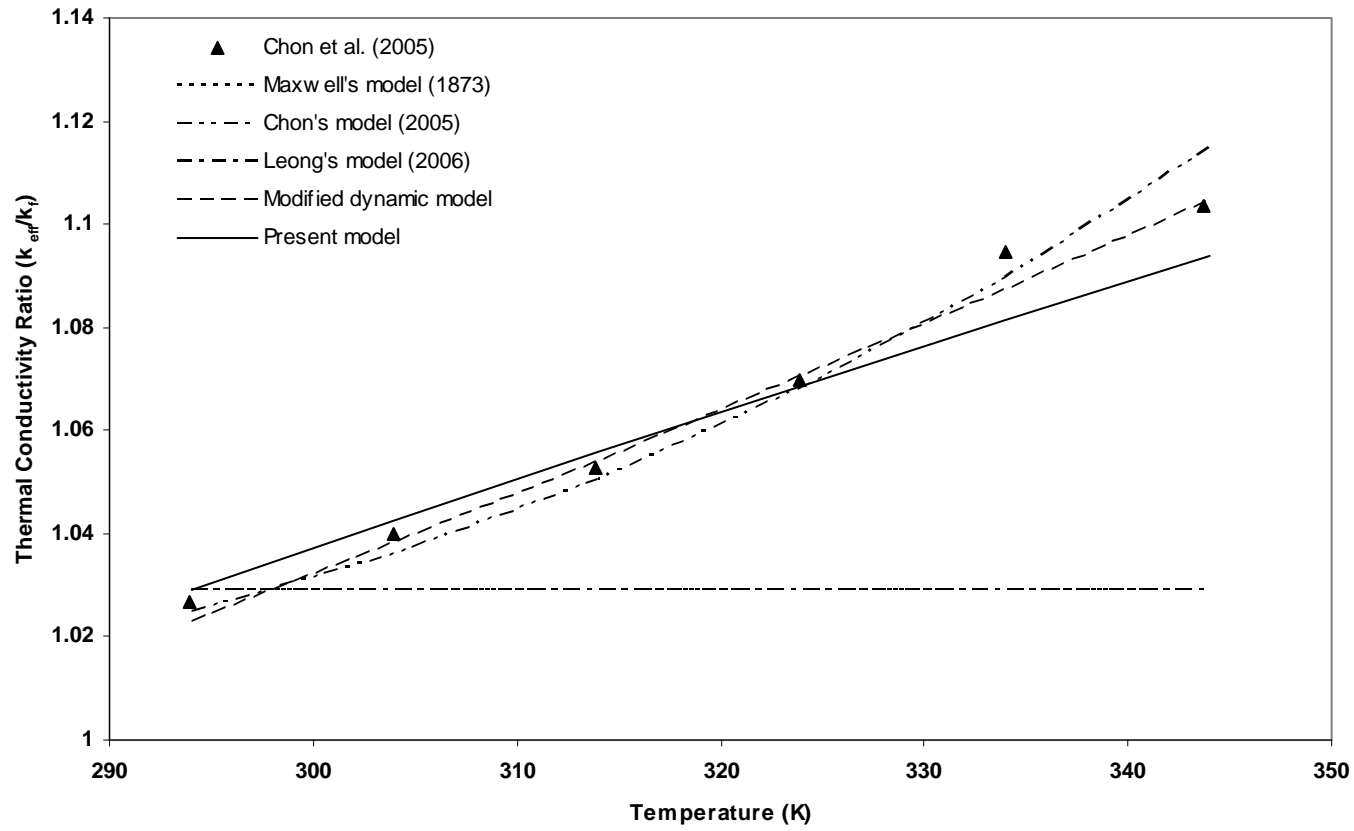
**Figure 7** Thermal conductivity models for Al<sub>2</sub>O<sub>3</sub> nanoparticles in water base fluid at room temperature (particle diameter = 38.4 nm) – Particle Volume Fraction Dependent



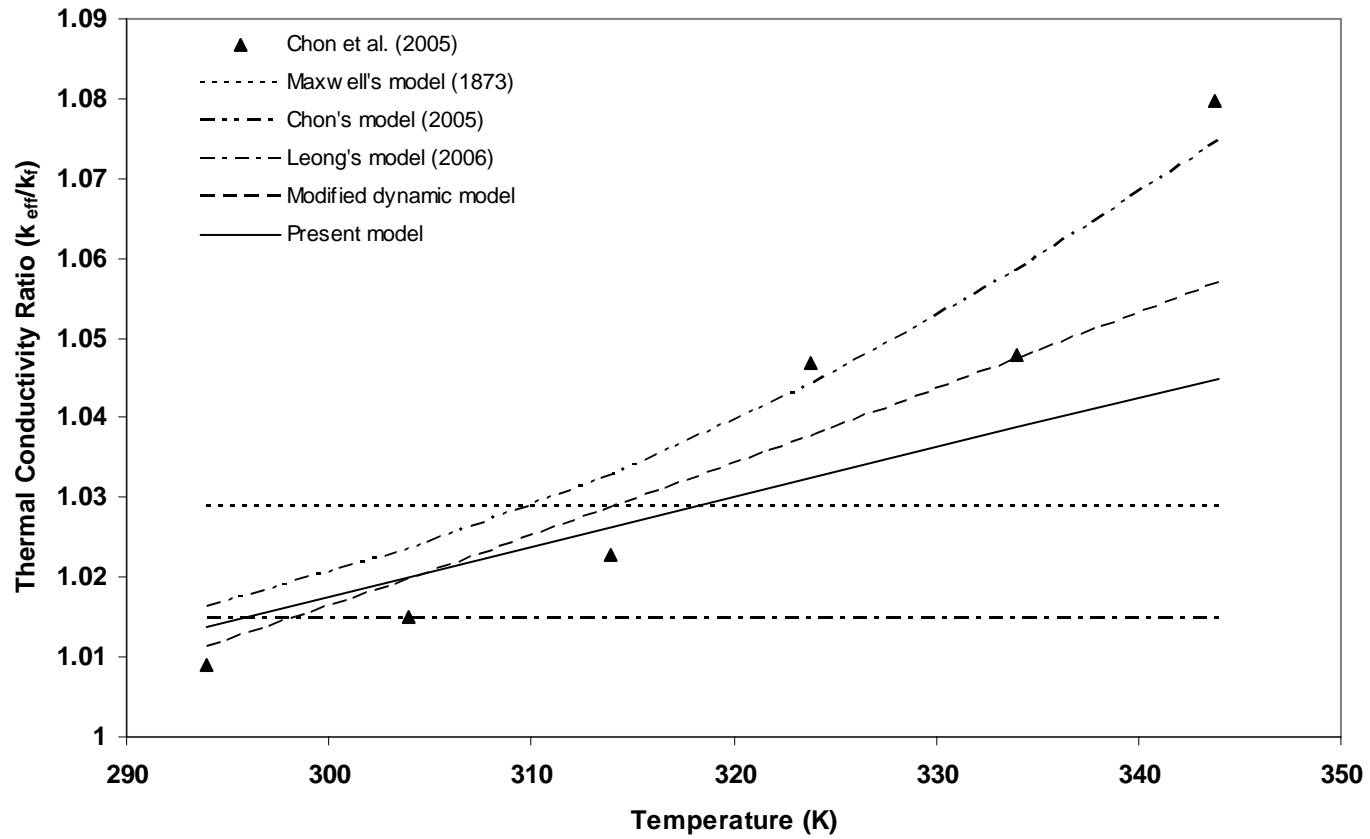
**Figure 8** Thermal conductivity models for CuO nanoparticles in water base fluid at room temperature (particle diameter = 35 nm) – Particle Volume Fraction Dependent



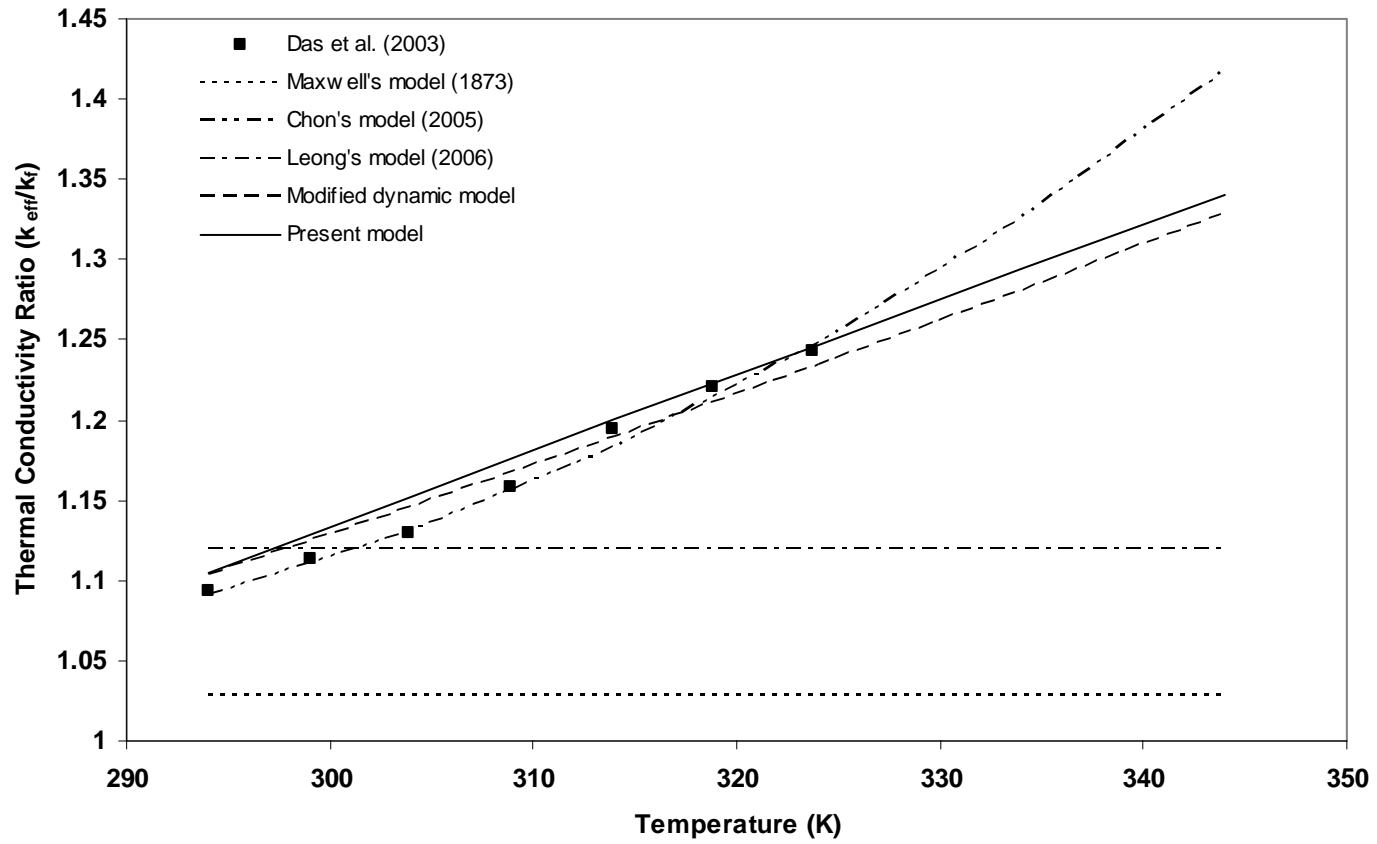
**Figure 9** Thermal conductivity models for  $Al_2O_3$  nanoparticles in water base fluid (particle diameter = 11 nm, particle volume fraction = 1 %) – Temperature Dependent



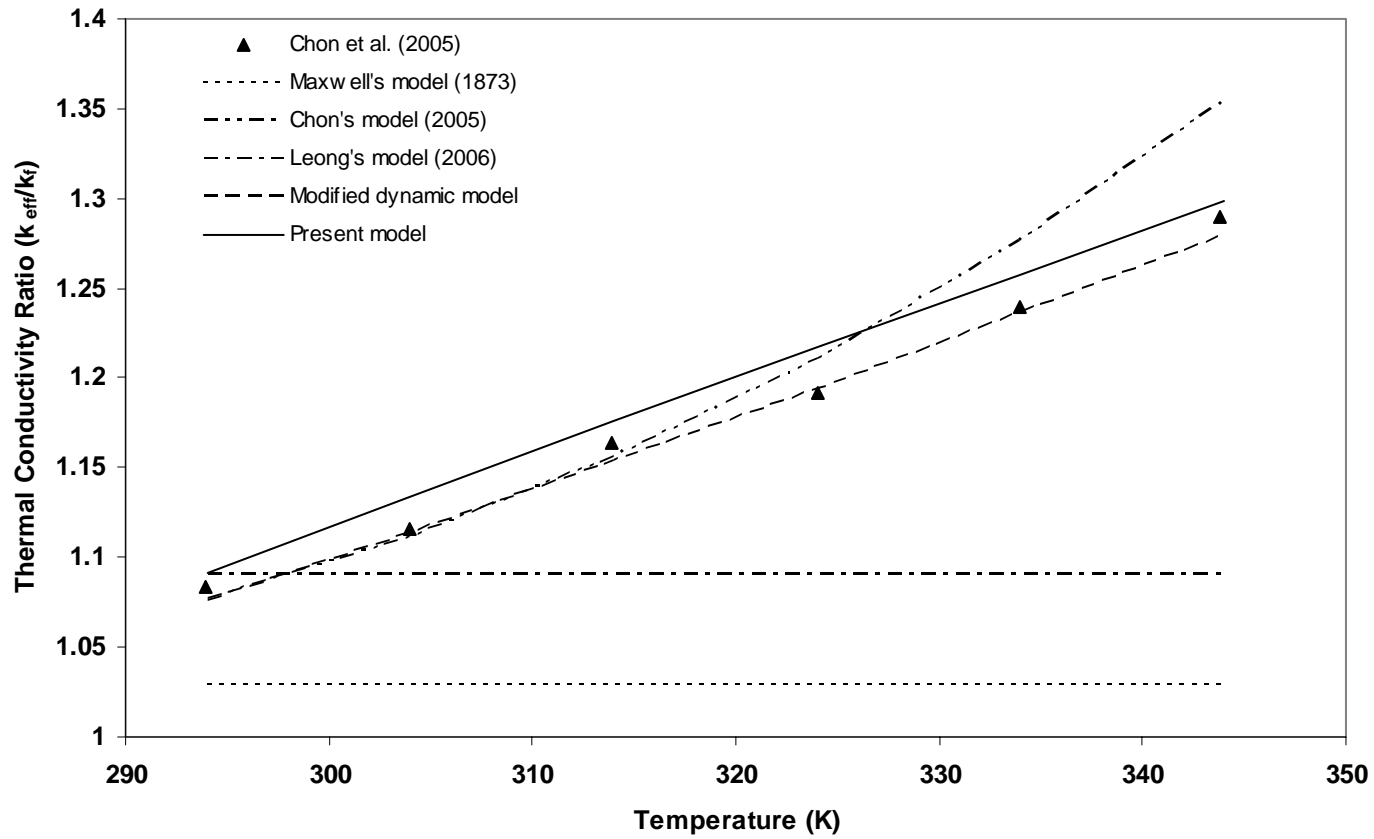
**Figure 10** Thermal conductivity models for  $Al_2O_3$  nanoparticles in water base fluid (particle diameter = 47 nm, particle volume fraction = 1 %) – Temperature Dependent



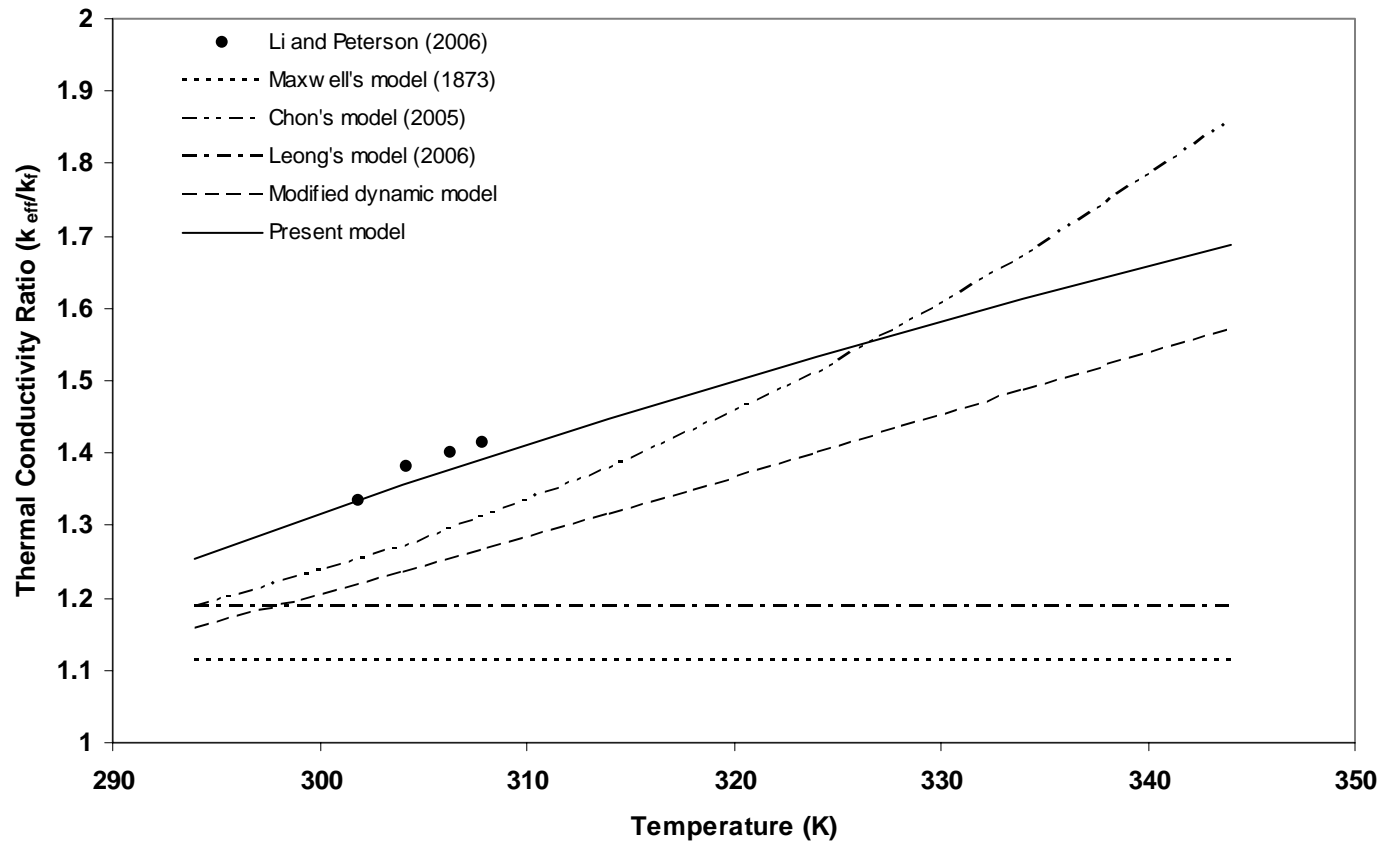
**Figure 11** Thermal conductivity models for  $\text{Al}_2\text{O}_3$  nanoparticles in water base fluid (particle diameter = 150 nm, particle volume fraction = 1 %) – Temperature Dependent



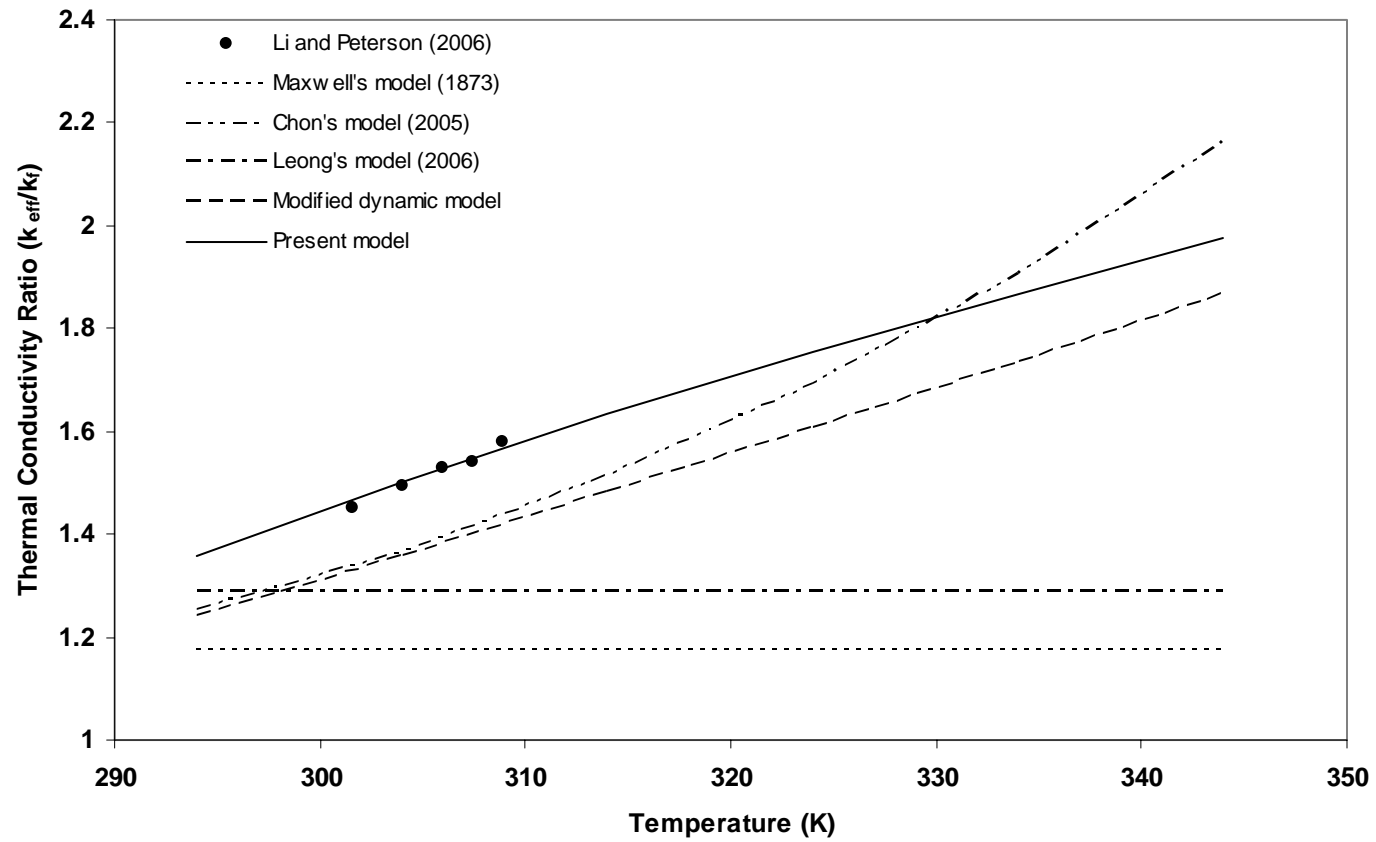
**Figure 12** Thermal conductivity models for  $Al_2O_3$  nanoparticles in water base fluid (particle diameter = 38.4 nm, particle volume fraction = 4 %) – Temperature Dependent



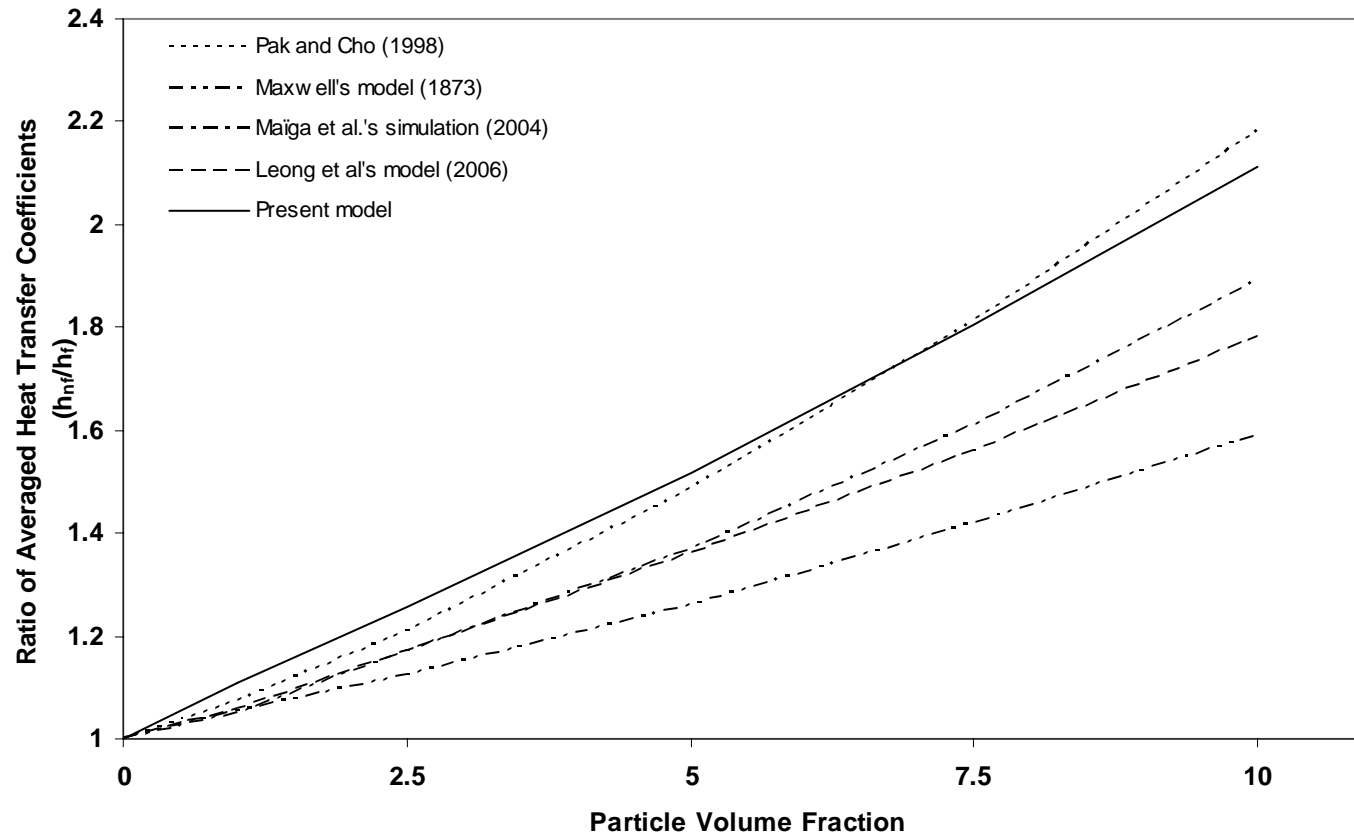
**Figure 13** Thermal conductivity models for  $\text{Al}_2\text{O}_3$  nanoparticles in water base fluid (particle diameter = 47 nm, particle volume fraction = 4 %) – Temperature Dependent



**Figure 14** Thermal conductivity models for CuO nanoparticles in water base fluid (particle diameter = 29 nm, particle volume fraction = 4 %) – Temperature Dependent



**Figure 15** Thermal conductivity models for CuO nanoparticles in water base fluid (particle diameter = 29 nm, particle volume fraction = 6 %) – Temperature Dependent



**Figure 16** Effect of particle volume fraction on the ratio of averaged heat transfer coefficients for water/ $\text{Al}_2\text{O}_3$  nanoparticle with particle diameter = 13 nm