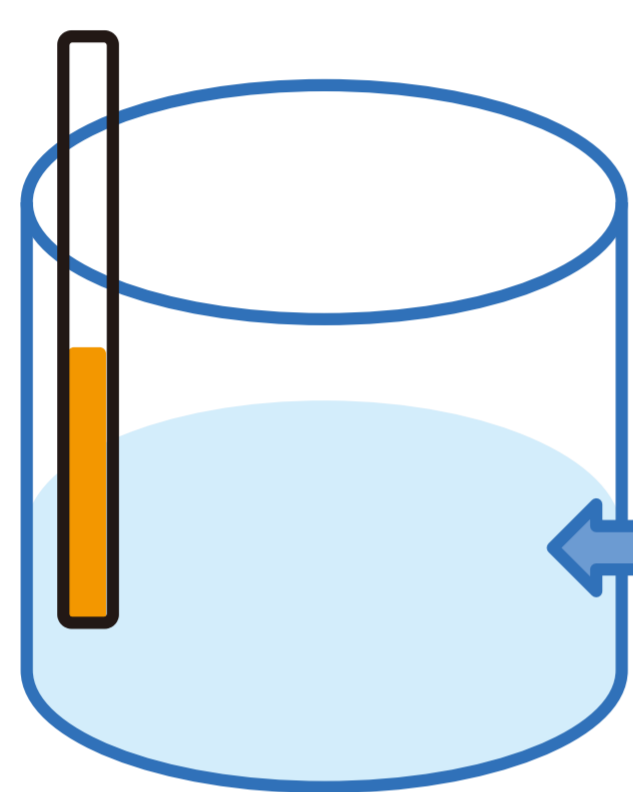


Light-Heat Conversion Property



Irradiation of simulated sunlight (20min)



Temperature rise when each nanoparticle is included

Water (ref.)
Water + { CWO[®], ITO, ATO, Carbon }

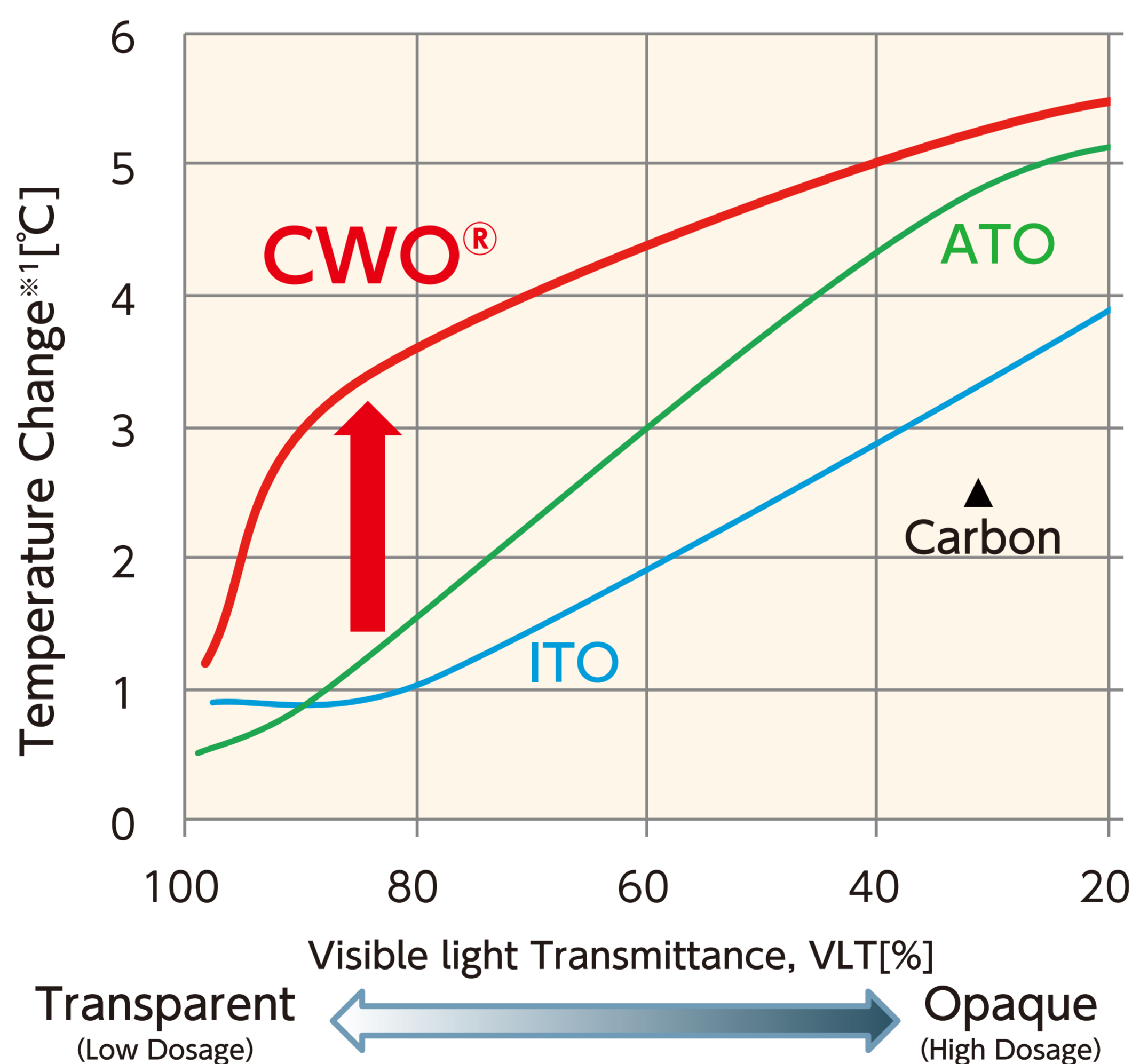
Simulated sunlight was irradiated from up above the sample cup containing water as reference or water-based dispersion of CWO, ITO, ATO and Carbon nanoparticles at various concentration. Temperature change after 20-minutes irradiation were measured.

■ Temperature increase while irradiation was much higher for CWO[®] due to its high IR-absorbing property. This light-heat conversion effect is remarkable at the region of high visible light transmittance.



Application as transparent light-heat conversion material

Remarkably effective at high VLT region



Subtracted Value;
Temperature change of water (ref.) is subtracted from measured temperature change of each sample.

【Collaboration with : National Institute for Materials Science (NIMS)】