

Study the Thermal Effect on Low Cost Lithium ions Battery

ABSTRACT

Lithium ions battery is a popular choice of battery to many smartphones manufacturer. Despite the constant revolution of smartphones in terms of hardware, batteries remained one of the most underdeveloped aspects. The surface temperature of the battery increased during charging of smart phone or phone left in the car in the hot and sunny days. It can cause fire hazard and explode, therefore it is important to understand temperature distribution in battery surface during heating and cooling. Under this project, low cost lithium ions batteries surface temperature distributions were studied to understand the risk during heating and cooling. There are three different capacities (1500 mAh; 2100 mAh and 2600 mAh) lithium ions batteries were used during experiments and analysis the result the determine the risk. It was found that battery capacities, time of heating and heating place have significant effect on thermal distribution that increases the risk of fire hazard and explosion.