Investigation of the temperature behavior of dye-sensitized solar cells prepared using different binders

Dye-sensitised solar cells were made using variations of a standard procedure, including the introduction of new binder materials into the TiO2 semiconductor films. It was found that the degree of cracking of the films can be influenced by both their thickness and the nature of the binder. Photoelectric measurements of working solar cells were carried out. The changes of influential cell parameters with temperature are reported here, and discussed on the basis of the electrical cell equations.