

NANOTECHNOLOGY AND THE SOLAR COLLECTORS' FUTURE

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This paper gives a comprehensive overview about the recent advances related with the application of the nanotechnology in various kinds of the solar collectors. Papers reviewed including theoretical, numerical and experimental up to date works related with the nanotechnology applications in the flat plate, direct absorption, parabolic trough, wavy, heat pipe and another kinds of the solar collectors. A lot of literature are reviewed and summarized carefully in useful tables to give a panoramic overview about the role of the nanotechnology in improving the various types of the solar collectors. It was found that the use of the nanofluid in the solar collector field can play a crucial role in increasing the efficiency of these devises. We think that this paper can be considered as an important link between the nanotechnology and all available kinds of the solar collectors. From the other side, further researches are required to study the effect of nanotechnology to enhance the solar collector industry over the next several coming years.

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