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- (71) **Applicant:** **SUNAMP LIMITED** [GB/GB]; 1 Satellite Park, Macmerry, Edinburgh EH33 1RY (GB).
- (72) **Inventors:** **BISSELL, Andrew John**; C/O Sunamp Limited, 1 Satellite Park, Macmerry East Lothian EH33 1RY (GB). **OLIVER, David**; C/O Sunamp Limited, 1 Satellite Park, Macmerry East Lothian EH33 1RY (GB). **PULHAM, Colin Richard**; C/O Sunamp Limited, 1 Satellite Park, Macmerry East Lothian EH33 1RY (GB). **GODDARD, Emily Jane**; C/O Sunamp Limited, 1 Satellite Park, Macmerry East Lothian EH33 1RY (GB). **ODLING, Gylan**; C/O Sunamp Limited, 1 Satellite Park, Macmerry East Lothian EH33 1RY (GB). **FISHER, Kate**; C/O Sunamp Limited, 1 Satellite Park, Macmerry East Lothian EH33 1RY (GB).
- (74) **Agent:** **Hgf Limited (Glasgow)**; 1 City Walk, Leeds West Yorkshire LS11 9DX (GB).
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(54) **Title:** METAL NITRATE BASED COMPOSITIONS FOR USE AS PHASE CHANGE MATERIALS

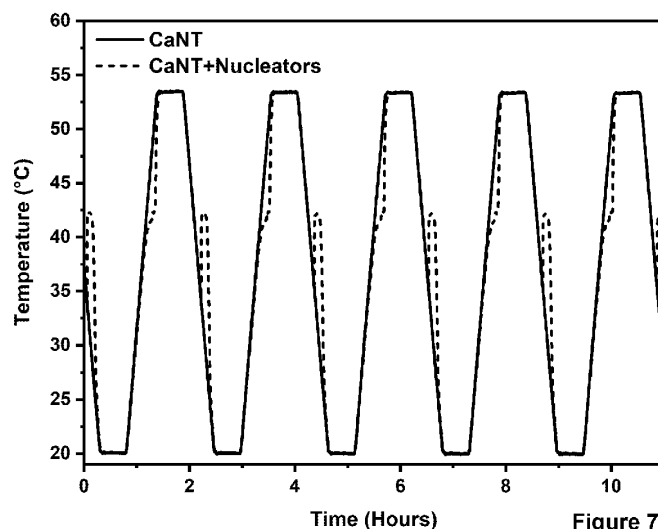


Figure 7

(57) **Abstract:** There is disclosed herein metal nitrate hydrates as phase change materials (PCMs). More particularly, there is disclosed herein metal nitrate hydrate PCMs containing group II metal nitrates as nucleation agents. A further disclosure herein is the combination of multiple chemical species in the PCM formulation which act together to induce nucleation of metal nitrate PCMs. Furthermore, physical mechanisms by which nucleation of metal nitrate hydrate based PCMs and crystallisation rate increased are disclosed.

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