

Title (en)

ARRANGEMENT AND METHOD FOR STORING ENERGY IN BUILDINGS AND SUPPLYING ENERGY TO BUILDINGS

Title (de)

ANORDNUNG UND VERFAHREN ZUR ENERGIESPEICHERUNG IN GEBÄUDEN UND ENERGIEVERSORGUNG VON GEBÄUDEN

Title (fr)

DISPOSITIF ET PROCÉDÉ POUR LE STOCKAGE D'ÉNERGIE DANS DES BÂTIMENTS, ET POUR L'ALIMENTATION EN ÉNERGIE DE BÂTIMENTS

Publication

**EP 2789047 A1 20141015 (DE)**

Application

**EP 12799174 A 20121210**

Priority

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- EP 2012074909 W 20121210

Abstract (en)

[origin: WO2013083828A1] The present application relates to an arrangement for supplying energy to buildings, comprising at least one external connection for providing an electrical current, at least one electrolyser (2) for producing hydrogen from water using the electrical current from the connection (9), at least one first chemical reactor (3) for at least partially hydrating at least one substrate with an extended pi-conjugated system using the hydrogen formed in the electrolyser (2), at least one storage tank (4) for storing the substrate which is at least partially hydrated in the first chemical reactor (3), at least one second chemical reactor (5) for at least partially dehydrating the at least partially hydrated substrate produced in the first chemical reactor (3) and stored in the storage tank (4) releasing hydrogen, and at least one fuel cell (6) for oxidating the hydrogen released in the second chemical reactor (4) so as to release energy. The present invention likewise relates to a method for supplying energy using this arrangement, wherein the energy is used for heating or cooling the building. In the case where the building does not have a requirement for either heat or cold, a thermal store can be added. The financial gain is achieved as a result of the thermal store and the storage of electrical current.

IPC 8 full level

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Citation (search report)

See references of WO 2013083828A1

Citation (examination)

WO 2013026910 A1 20130228 - ARLT WOLFGANG [DE], et al

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