

## **Nanostructured electro-dissipative concretes for power to heat applications in thermoelectric energy storage**

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Storage of excess electricity from discontinuous sources as solar or wind raises the problem of costs and material necessary for electrical batteries. Conversion of excess power into thermal energy, albeit with a loss of efficiency, allows energy to be accumulated with affordable alternative methods. Materials that perform the dual function of converting power into heat (P2H) and simultaneous storage guarantees an efficient and cost-effective approach. Concrete micro- and nano-structured with conductive-resistive behavior and self-heating properties constitute a smart solution to storage by P2H.