

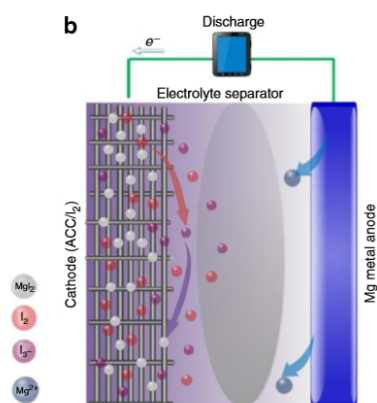
# High power rechargeable magnesium/iodine battery chemistry

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Abstract:

Rechargeable magnesium battery has raised much attention ,due to its high energy density and low cost. However,the scientists faced a difficult problem to solve because they could not find a appropriate cathodes.

In this paper,the author use iodine as cathodes to break the limitation of rechargeable magnesium battery. The author utilize a new method call ”liquid-solid two phase reaction ”. This method can avoids solid-state  $Mg^{2+}$  diffusion and increase a larger interfacial reaction area. The way“ Liquid-solid two phase reaction ”makes magnesium/iodine battery a better rate capability and a higher energy density.



Reference:

1. Tian, H.; Gao, T.; Li, X.; Wang, X.; Luo, C.; Fan, X.; ... Wang, C.. *Nature Communications*, **2017**, *8*, 14083.