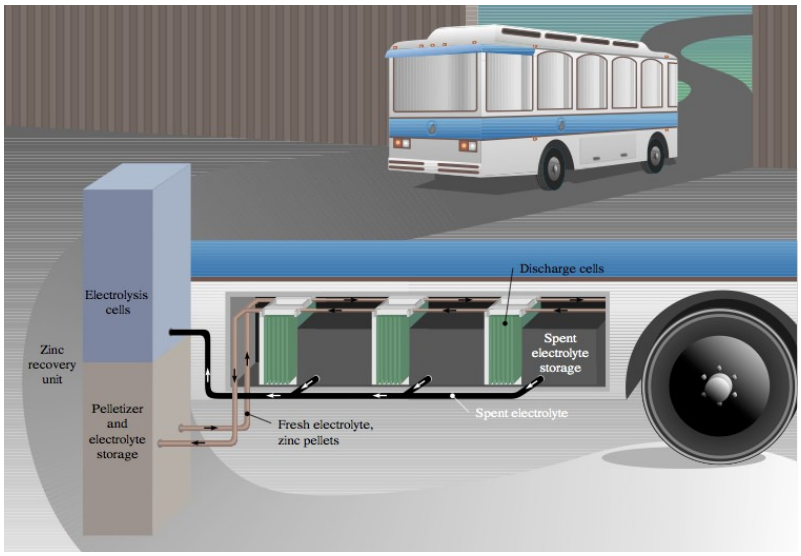
UNIVERSITÄT DUISBURG ESSEN	Summer Internship	Chair of Energy Technology and Center of Fuel Cell Technology ZBT

Construction of a model: zinc air battery as option for storage of renewable electricity



As future power source for electric vehicles, metal air batteries are discussed. As well lithium air as zinc air batteries are topics in current R&D. Primary, non-rechargeable zinc air batteries are commercially available, but the realisation of secondary, rechargeable batteries is still a challenge. The system is interesting due to relatively low cost of zinc. In addition to typical electrical charging processes, mechanical recharge is possible, if zinc slurry is used as active mass for the battery. The discharged zinc oxide slurry could be regenerated at central facility using renewable energy.

An operational model of this scheme shall be realised including for example:

- solar cells,
- battery charging station and
- electric model car.

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