

Iron electrode materials, iron electrodes, and methods for fabricating said iron electrode materials and iron electrodes via elevated temperature thermomechanical processing of porous particulate iron materials are described. For example, as part of iron electrode manufacture, a particulate iron material into an apparatus may be provided. In addition, pressure and/or heat may be applied to the particulate iron material in the apparatus for a time period to form an electrode having therein conductive connections between particles of the particulate iron material.