

Miami Solution introduces three innovative concepts: 1) a highly efficient and low-pressure drop reactor design; 2) novel technology for fabricating ultra-thick and cost saving electrodes; and 3) new concept of the electrochemical lithium extraction process resulting in reduced number of intercalation/recover cycles. The experimental and numerical modeling/simulation results demonstrate that implementation of these three concepts will solve the major issues with the electrochemical process and reduce the cost of the direct lithium extraction from brines to 1\$ per kg of LiOH equivalent which is much lower than those of existing industrial technologies. At the same time, the environment impact will be effectively minimized. With the strong support and participation of the industrial partners, Miami Solution is poised to carry out a successful bench-scale R&D which will be followed by a pilot scale R&D and on-site testing. Miami Solution is aggressively pursuing technology transfer, industrialization, and commercialization of the innovative electrochemical lithium extraction technology in a timely manner.