Call for Expression of Interest (EOI)

Commercialization of Technology for Manufacturing of : A Stable Composite Electrode Based on Graphite and Clay for High Temperature Electrochemical Applications

Industrial Technology Institute (ITI) is a Multidisciplinary Research Institute in Sri Lanka dedicated to the promotion of industrial development through R&D, Contract research, Consultancy, Training, and Technical Services.
Industrial Technology Institute has developed an innovative process for manufacturing of "A stable composite electrode based on graphite and clay for high temperature and general electrochemical applications". ITI invites potential industrial or investment partners to express their willingness to take part in commercialisation of this technology as investment partner.

The Technology Brief

The technology protected with Sri Lankan Patent, transitions beyond traditional carbon-based electrodes by using a mechanical-thermal activation process. Unlike conventional methods that require expensive organic binders or ionic liquids, this process utilizes clay deformation under graphite lubrication to produce nanoparticles, which are responsible for materializing the basic structural unit of the electrode and clay dehydroxylation that reinforce the electrode matrix, ensuring an improved mechanical stability.
The core breakthrough lies in the Graphite-Clay Lamella-like Structure. During high-pressure compression, the graphite acts as a solid lubricant, facilitating the formation of clay nanoparticles.

Self-Binding Matrix: These nanoparticles act as a natural adhesive, holding graphite sheets in a tighter matrix than raw graphite alone.

Enhanced Surface Area: The electrode surface is characterized by villi-like projections, significantly increasing the electro-active surface area for faster electron transfer kinetics.

Optimal Ratio: Research found optimum graphite-to-clay ratio which provides the peak balance between mechanical durability and electrical throughput
Based on the EOIs received, ITI will invite potential parties to participate virtual pre-bid discussion. A Non-Disclosure Agreement (NDA) will be signed in advance before the discussion. A nonrefundable fee of LKR 10,000/= will be charged at the submission of EOIs.
Bidders are invited to send the sealed proposals in 2 copies (Original & Copy) by registered post to the following address or deposit them in the Tender Box at the Human Resources Department of ITI at 503/A Halbarawa Garden, Thalahena, Malabe, or by sending an email to dg@iti.lk under the above subject, on or before 20th April 2026.

For any further information could be contact the Director, S&T Business Center at dir_stbc@iti.lk, before 10th April 2026.

ITI reserves the right to reject any or all EOIs without assigning any reason thereof.

Director General,
Industrial Technology Institute
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