

Title of Technology to be offered	Lithium Carbonate from Indian Lithium bearing mineral - Lepidolite
Type of Technology	Indigenous
Area of Technology	1. Chemistry and Chemical Engineering 2. Geology and Resource Extraction
Details of Collaborating Agency	Nil
Details of Present/existing Technology. Shortfall/Technological gaps in the existing technology	Presently no technology available in India
Brief description/abstract (150 words)	The process involves roasting of ground ore (lepidolite - 2.5 to 4% Li ₂ O) with alkali sulphate followed by water leaching and subsequently treating with carbonate salt. The recovery of lithium and purity of lithium carbonate from this process was obtained as 90-92% and 98% respectively.
Major raw material	Leoidolite, Alkali Sulphate, Carbonate Salts, Water, Steam etc.
Major Plant Equipment/Machinery	High temperature continuous furnace, constant stired tank reactor, solid-liquid separator unit.
Area of application	1. Minerals, Metals and Materials 2. Power and Fuel 3. Defence
Details of specification application	Applications in ceramics, steel, as fluxing agent, glass lining of water heaters, glass, production of other lithium chemicals including lithium metal.
Status of Development	Ready for commercial use
Ecological/Environmental Impact (if any, specify briefly)	Environment friendly
Patenting details	Yet to be filed
Extent of Commercialisation	Under the process of commercialisation
Technology Transferring Agent	NML/CSIR
Technology Transfer Assistance Offered (Optional)	(a) Process Know-How, (b) Details of the Equipment, (c) Plant lay-out & (d) Quality assurance methods. Assistance in setting up a plant on separate terms
Key words	Lithium, Lithium Carbonate, Lepidolite
Additional Information (if any)	The process Know-How with demand supply estimations, and techno-economics of the process was transferred to an entrepreneur M/s Lithochem Giridih in Bihar for 30 tpa lithium carbonate
Country of origin	India