久吾高科
JIUWU HI-TECH

Adsorbent





Titanium-based
lithium adsorbent



Aluminum-based
lithium adsorbent

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The adsorption coupled membrane process is one of the most promising technologies for lithium extraction from salt lake brine, with advantages such as high efficiency, energy conservation, environmental protection, and simple operation. However, the core material adsorbent often has problems such as low adsorption capacity, poor selectivity, and high loss rate, which limits the application of this technology. Through long-term technological breakthroughs, Jiuwu High-Tech has greatly improved the performance of adsorbents. It has taken the lead in developing titanium-based and aluminum-based lithium adsorbents, with high mass transfer efficiency and fully independent intellectual property rights. We have also built 6000 tons per year adsorbent production lines of the project, achieving a three-step strategy of investment, production, and sales for the same year. In the future, our production lines will be expanded in a timely manner based on the market demand for lithium extraction from salt lakes, further to enhance the capacity of adsorbents.



Third generation titanium-based lithium adsorbent



Third generation aluminum-based lithium adsorbent

Product advantages

Product type	Applicable process	High adsorption capacity	Excellent adsorption selectivity	Low dissolution loss rate
Third generation aluminum-based lithium adsorbent	Lithium extraction from old brine with high magnesium lithium ratio; Lithium extraction from raw brine with high sodium lithium ratio	Adsorption capacity above 10.0mg/g	Effectively separate magnesium lithium, sodium lithium, boron lithium, and other ions	Annual loss rate less than 5% (Industrialized operation)
Third generation titanium-based lithium adsorbent	Lithium extraction from alkaline brine	Adsorption capacity above 12.0mg/g	Effectively separate magnesium lithium, sodium lithium, boron lithium, and other ions	Comprehensive annual loss rate less than 10% (pilotscale experiment)

