



SPODUMENE 鋰輝石礦介紹



Spodumene is one of the main minerals containing lithium. The crystals are short columnar or plate-like.

※鋰輝石是主要含鋰礦物之一，晶體呈短柱狀或板狀。

Spodumene concentrate generally contains lithium (Li_2O) in the range of 6.3~7.5%, and is the most important source of lithium industrial minerals.

鋰輝石精礦一般含鋰(Li_2O)為 6.3~7.5%範圍，是最主要的鋰工業礦物來源。

Application 運用

As a raw material of lithium chemical products, it is widely used in lithium chemical industry, glass, metallurgy, ceramics, batteries, and pharmaceutical industries. Electric vehicles are the main driver of lithium demand growth

※作為鋰化學製品原料，廣泛應用於鋰化工、玻璃、冶金、陶瓷、電池、醫藥行業。電動汽車是鋰需求增長的主要驅動力

Processing 製程

The rock is dug out of the open pit, which is crushed, sorted by size and cleaned to form a spodumene concentrate containing about 6-7% lithium oxide.

※露天礦中挖出岩石，岩石壓碎、按大小分類和清潔，形成含有約 6-7%氧化鋰的鋰輝石精礦。



Spodumene concentrate is refined to become lithium salt. At present, lithium salt products mainly include lithium carbonate and lithium hydroxide, which are important raw materials for lithium batteries

※ 鋰輝石精礦經過精煉加工後成為鋰鹽。目前鋰鹽產品主要包括碳酸鋰和氫氧化鋰，是鋰電池的重要原材料。



(鋰鹽)

Classify 分類

※ The lithium content grade and application reference are as follows

※ 含鋰量等級與應用參考如下: (來源: SMM 新能源頻道 基準日 2023/08/03)

等級	鋰(Li ₂ O) 含量	推薦性用途	市場行情均價
微晶級/磷鋰鋁石	7.00~7.50	生產微晶玻璃和高檔陶瓷釉料	USD3344/每噸
陶瓷級/磷鋰鋁石	6.50	生產陶瓷	USD2814/每噸
化工級/鋰輝石精礦	5.50~6.00	鋰的其他化工產品	USD3450/每噸
電池級碳酸鋰	99.50	鋰電池、玻璃陶瓷等	USD36750/每噸
電池級氫氧化鋰	56.50	鋰電池、玻璃陶瓷等	USD38750/每噸

Spodumene concentrate market average price 鋰輝石精礦市場平均價格

1. (基準日: 2023/8/3 來源: SMM 新能源頻道):

澳洲 Australia CIF China Price **USD3200-USD3700/TON**



■ 鋰輝石精礦(CIF中國)今日價格

鋰輝石精礦(CIF中國) 美元/噸		訂閱短信服務	
3200 ~ 3700	▼	3450	-5 / -0.14%
更新日期: 2023-08-03			
規格:	Li ₂ O:5.5%-6%	含稅:	不含稅價格
參考標準:	無	主流品牌:	銀河資源、皮爾巴拉等廠家旗下品牌
定義:	CIF到岸價	備註:	--
價格產生區域:	全國	數據結束:	--
數據起始:	2019-07-03		

2.(基準日: 2023/7/25 來源: Argus):

澳洲 Australia CIF China Price **USD3245-USD3495/TON**

Lithium concentrate (spodumene) 6% Li ₂ O cif China	\$/t	25 Jul	3,300	3,550	-100
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Origin distribution:產地分佈:

Australia is the world's leading producer and supply source of hard rock ore (spodumene), supplying 47% of the world's lithium in 2022

澳洲是全球主要硬岩礦（鋰輝石）產地和供給來源地，2022 年澳洲供應全球 47%的鋰(資料來源 [Investing News](#))

1. Australia 澳洲 – 55,000 公噸

Australia's lithium reserves exceed 2.7 million metric tons. The country's lithium is mined from hard rock mines, and China is the largest importer of the product.

澳洲鋰儲量超過 270 萬公噸。該國的鋰開採自硬岩礦，中國是該產品的最大進口國。

2. Chile 智利 – 26,000 公噸

Chile's lithium production is 26,000 metric tons, and the country's lithium is extracted from lithium brine deposits.

智利的鋰產量為 26,000 公噸，該國的鋰提取自含鋰鹵水礦床。

3.China 中國 – 14,000 公噸

Lithium production in China is 14,000 metric tons, and China is the world's largest lithium consumer due to the booming electronics and electric vehicle industries in the country. China makes nearly two-thirds of the world's lithium-ion batteries and controls most of the world's lithium processing plants.



中國的鋰產量為 14,000 公噸，中國是世界最大的鋰消費國，原因是該國的電子和電動汽車行業處於蓬勃發展的階段。中國製造了全球近三分之二的鋰離子電池，全球大多數鋰加工廠均在其掌控之下。

4. Argentina 阿根廷 – 6200 公噸

5. Brazil 巴西 – 1900 公噸

Industry experts predict that the country's production will increase further in the coming years as electric car makers such as Tesla gradually reach supply agreements with some of the country's producers.

行業專家預測，隨著特斯拉等電動汽車生產商與該國一些生產商逐步達成供應協議，該國未來幾年的產量還將進一步增加。

6. Zimbabwe, Africa 非洲辛巴威 – 1200 公噸

Bikita Minerals is the only producer in the country. The country is said to have the largest known lithium deposit in the world, with reserves of more than 11 million tons. Zimbabwe believes it has the potential to meet 20% of the world's lithium supply needs once it is able to fully utilise all its resources.

Bikita Minerals 是該國唯一的生產商。據稱，該國擁有世界上已知最大的鋰礦床，儲量超過 1100 萬噸。津巴布韋認為，一旦它能夠充分利用所有資源，就有潛力滿足全球 20% 的鋰供應需求。

7. Portugal 葡萄牙 – 900 公噸

The growing demand for lithium-ion batteries means that more lithium is needed to meet production needs, and Portugal is home to some of the largest deposits in Europe.

鋰離子電池需求的不斷增長意味著需要更多的鋰來滿足生產需求，而葡萄牙正是歐洲一些最大規模礦床的所在地。

8. Canada 加拿大-500 公噸

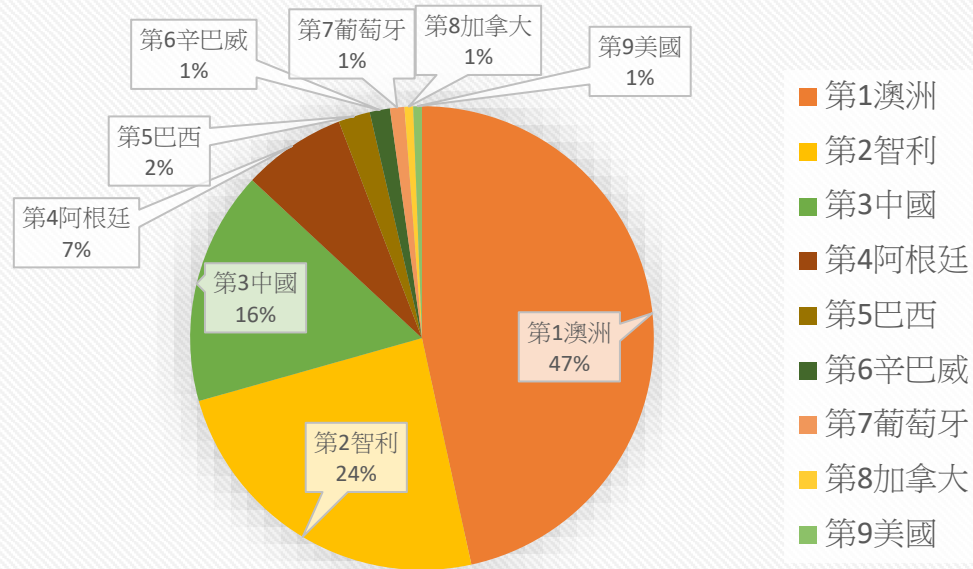
9. United State 美國

The United States produces only 0.6 percent of the world's lithium supply because it has only one mine, located in Nevada. But the country's lithium reserves still rank fifth in the world, at 750,000 tonnes

美國的鋰產量僅占全球總供應量的 0.6%，因為美國只有一處鋰礦，位於內華達州。但該國的鋰儲量仍排在世界第五位，達 750,000 噸



2022年鋰生產國占比排名



Evaluation 評估

Lithium demand mainly depends on the electric vehicle industry, after the epidemic, the global inventory of the electric vehicle industry has increased, the demand has slowed down, and the lithium price has fluctuated sharply, which can increase or decrease by thousands of dollars/ton in just a few months, and we should always pay attention to market information and adjust the quotation to customers.

鋰需求主要依賴電動汽車產業，疫情後電動汽車產業全球庫存增加，需求減緩，鋰價格波動劇烈，短短數月可增減數千美金/噸，應時刻關注市場資訊，調節對客戶報價。