

International Trends in Lithium Production Technologies (using patent analysis)

M. Lloyd¹, and R. Wulff²

1. Senior IP Analyst, Glasshouse Advisory, Melbourne, VIC 3000. Email: mike.lloyd@glasshouseadvisory.com.

2. Principal, Griffith Hack, Sydney, NSW 2060. Email: robert.wulff@griffithhack.com

ABSTRACT

In this paper we will analyse international trends in lithium production technologies over the last 10 years. It is common news that lithium is one of the most important metals of the 21st century and, as a result, there is increasing pressure on supply sources. This pressure has resulted in much innovation in the area of lithium production. To quantify this innovation, we identified 927 patent families for 'obtaining lithium' that have been filed after 2007. Altogether there have been 1672 individual patents in these families, with patent publications growing at an impressive 34% per annum. China followed by Japan is the leading source of these patents, but the US is the leading source of the strongest patent families. The majority of these patents refer to production of lithium from natural sources, although about a third of them refer to recycling lithium. We review the leading owners, sources, and technology trends for these patents. We also consider patents filed in Australia, and technologies being developed in Australia. As part of the analysis, we show and summarise the leading patents, based on a combination of factors which can predict patent importance – which in turn allows us to identify the most important patent owners.

Keywords: lithium production; leading patents, players.