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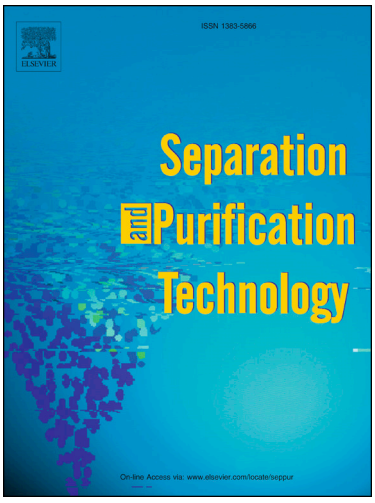

Ionic liquids – the beginning of the end or the end of the beginning?- A look at the life of ionic liquids through patent claims

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ACCEPTED MANUSCRIPT

Ionic liquids – the beginning of the end or the end of the beginning? - A look at the life of ionic liquids through patent claims

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Abstract

Research publications provide a guide to ionic liquid research *per se*, patents and their claims provide a commercial view of the technology. By looking at developments in ionic liquids through patent claims, a picture develops of where ionic liquid technology has moved from the laboratory into the commercial world. This article discusses how the commercialisation of ionic liquid technology can be analysed by tracking changes in the number of ionic liquid filings and the entities behind the filings, as well as developments in categories of claim (ionic liquids *per se* v. methods of using ionic liquids) and fields in which the patents are being filed.

Keywords: Ionic liquid, patent, trend

1. Introduction

Since ionic liquids were first reported in 1914, there has always been a parallel between academic research and industrial interests in the field [1]. Patent filings can be seen as a measure of the scale of commercial interest in a technology area. By analysing trends in patent filings it is possible to get an indication of how an area of technology has developed and is developing in an industrial and commercial setting.

The purpose of this work was to analyse some of the trends in patent filings in the field of ionic liquids specifically, and to use this to provide an indication of how the transfer of ionic liquids from academic labs to commercial industries is developing. Now that ionic liquids in general are established as a relatively well-known technology and perhaps in themselves can no longer be described as a new frontier, it could be assumed that the “gold-rush” of ionic liquids is coming to an end. Our years of experience in the field of patents related to ionic liquids indicates to us that this is not the case, and that the technology is still expanding commercially. The results presented here aim to show the trends that emerge from a more detailed look at the overall pool of patent filings.

2. Methods

The patent filing data reported in this article was obtained using the Thompson Innovation database and search tools. To obtain the patent data reported in this article, the search terms used were "ionic liquid", "room temperature molten salt", "room temperature liquid salt", "low temperature molten salt", "low melting fused salt", "room temperature fused salt", "low temperature fused salt".

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