

CLOSE-UP: EMERGING TECHNOLOGY MARKETS

The five elements of establishing solid nanotech intellectual property

By **MARY ROSE SCOZZAFAVA**

In recent years, there has been a scramble to establish IP positions in significant areas of nanotechnology, such as fullerenes, nanowires and quantum dots. The rising number of nanotechnology patents, coupled with the sheer breadth and depth of nanotechnology, makes it challenging to obtain a defensible IP position. Keeping a few suggestions in mind when building your own IP portfolio will help to develop a strong IP position.



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- **Keep the interdisciplinary nature of the invention front and foremost.** Much of nanotechnology innovation is directed to new materials or to engineering-known materials on increasingly smaller scales. These innovations may provide solutions to problems across many technology sectors and industries. A nanotechnology patent portfolio should reflect this basic premise. By claiming the invention in terms of a solution to a problem or an enabling capability, the invention provides applications to industries that are not foreseeable at the time the application is being filed. A versatile portfolio will protect your markets and products, while also covering products and applications in other markets and technology disciplines.

- **Use clear and simple language when drafting claims.** The claims of a patent define the legal scope of the patent and establish the “territory” from which the patentee can exclude others. While it is clearly desirable to claim an invention broadly, iden-

tifying appropriate claim language can be challenging for nanotechnology inventions.

- **File specific applications based on platform technologies targeted to specific industries.** While it is important to obtain broad protection of an invention, it is equally important to seek patent protection for the key applications of the invention. Patent claims can be targeted to applications across a range of industries and to devices that incorporate the novel materials or materials processing. Claims targeted to specific applications provide licensing flexibility, enabling a company to license the same core technology to a wide range of end users in a variety of different markets. IP patent strategies pursued outside the United States, however, may differ somewhat because of differences in regional patent practice and cost considerations.

- **Pursue patents with a market focus.** Make sure your claims cover where you think you (and your competitors) will be in three years — the average time it takes to obtain a patent. All too often, claims cover research and development prototype of the invention on hand at the time the patent application was filed, but not the commercial product that is ready for launch. Commercially useful embodiments should be identified early in the patent process. In addition to considering the various short-term applications of the invention, a patent portfolio should be developed to cover down stream commercial products and end uses. This is particularly important for nanotechnology materials companies, where the material itself may be low on the value chain.

A patent position on upstream products

that incorporate the invention provides added value as the portfolio not only can offer a proprietary position on materials, but also on commercial products and processes.

- **Play the numbers game wisely.** Investors see value in a large number of patent filings — if they relate to a business goal. Applications including claims targeted for specific applications and industries will give investors confidence that key markets and products are protected.

Targeted claims will likely see a more rapid allowance, further increasing investor confidence that the company has a defensible IP position.

Effective communication between IP counsel and the company is critical to the successful implementation of these suggestions. IP counsel needs to have a good understanding of the company’s business and technology, while the company needs to appreciate the importance of patent process in order for both parties to make the right decisions in patent portfolio management.

By following these few simple steps and by working together with your IP legal counsel to achieve these basic goals, you will be building an IP portfolio that not only provides a defensible IP position, but also builds value for your business.

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