

OE Welcomes Our First Patent Review

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I'm pleased to welcome our first published patent review. We introduced this new category of paper in early 2021 to address what I saw as a need in the literature. Specifically, the patent review is aimed at allowing a researcher who is new to a field to come up to speed on the historical advances that brought us to where we are today.

With the explosion of published articles in recent years, it can be very difficult to become familiar with the literature of a given field much less gain a perspective on the historical journal articles that brought us to that point. The patent landscape can be even more difficult to analyze with its similar explosion in recent years. For a quantitative data point, consider that it took 24 years to move from patent number 4,000,000 to patent number 5,000,000, yet at the current pace, we are adding 1,000,000 new patents every *three* years now. Couple this with the difficulties of patent searching and the impenetrable legal jargon, it can be quite difficult to figure out which patents are the most essential. So, while our traditional review articles provide a perspective on journal literature, the patent review is meant to give an overview of the key patents and advances that shaped the field.

In this issue, we present a patent review by [Martin H. Kreiger of University of Southern California describing the unique aspects of the Polaroid SX-70](#). Readers of OE of a certain age will recall the fun and excitement of the Polaroid instant cameras. The ability to instantly view your pictures was a breathtaking advance, albeit the technology has been surpassed by the ability to snap hundreds of selfies with your cell phone. Nevertheless, the development of the Polaroid SX-70 was a landmark of engineering. In his article, Dr. Kreiger focuses on the concept of a tightly coupled design where the inter-relation of the instrument components was not only considered but relied upon to produce an end product that was satisfying to the end user.

For me, I find this first patent review to be so compelling due to the personal perspective Kreiger provides. While the references in the article point the reader to key papers on the subject, the historical details provided in his personal perspective make for a very entertaining article. In the end, the article compares the Polaroid and Edwin Land to the MacIntosh computer and Steve Jobs. While the instant camera dominated the market for many years, it eventually was supplanted. However, it remains to be seen how long Apple products will remain at the center of our cultural imagination. Thus, even though the Polaroid SX-70 can be viewed as old school technology, there are still lessons to be learned from studying its development.

If you've read this far, I encourage you to go a step further and check out this month's patent review. If you appreciate the perspective of this type of article, please consider writing a patent review of your own. I believe that these perspectives provide a unique resource for our field, and we encourage further patent review submissions at *Optical Engineering*.