

Editorial

Time to Reflect

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We live in a time in history when one of the major drivers of economic growth, employment and quality of life is science and its technological applications. Examples include self-driving cars, which are being road tested and are projected to provide safer highway driving conditions in the near future, and 3-D printers, which are printing human prostheses and are projected to print live parts for organ transplant. In this context, one of the fastest-growing areas with a very high degree of career growth is mechatronics, a hybrid of various fields such as mechanical engineering, electronics, telecommunication engineering, information systems, computer science, biological systems and nanotechnology. Research and development in nanoscale chemical and physical sciences still provide the foundational know-how for mechatronics. As Professor Mirkin stated in his 2016 AIC Gold Medal Speech, "Nanoscience and technology hold promise to transform diverse fields spanning medicine, information technology, electronics, materials science, chemistry, energy, and the environment" (p.1). Siji Mathew and co-authors have investigated the efficiency of dye-sensitized solar cells developed using black plum, grapes skin, mangosteen, raspberry and beetroot as natural sensitizers. Amrutha P. Thankachan and co-authors reported a mild reaction protocol for C-S cross-coupling reactions of aryl and alkyl thiols with aryl halides catalyzed by zinc. Alexandra Knopp and co-authors compared the diagnostic and predictive values of tumor markers CYFRA 21-1, NSE, and CEA for the serodiagnosis of lung cancer. In the Public Understanding of Chemistry section, Todd A. Houston explored the Chemistry-Music connection by tuning in on transition metals by revisiting Newlands' law of octaves. Finally, Mary van Muelken portrayed a veteran chemist, Dr. Lawrence Duffy—a navy veteran and long-time fellow of The AIC.

The Chemist Volume 88, Issue Number Two, 2016 marks the completion of five years since the journal was resurrected and re-launched as a refereed official online journal of The American Institute of Chemists. Also, the Public Understanding of Chemistry section completes five years. For reference, this issue contains a five year volume index. During this period, the line-up of articles spanned scientific chemical research to education and public understanding of chemistry. I would like to thank the members of the Editorial Review Board for their pro-bono support reviewing manuscripts and helping to maintain the quality of the journal. Besides experts in chemistry and science in general, each issue of the journal has received help from experts such as Dr. Penelope Fritzer from the field of English. The role of the editorial assistants cannot be underestimated either. The support of Dr. Valerie Bristor, Dean of the College of Education at Florida Atlantic University who may be considered a *friend of chemistry* in providing a home base for *The Chemist* for the past five years, is much appreciated and should not go unnoticed by my respected colleagues in chemistry. Often, it is humbling to realize that chemists need non-chemists in order to lift us up, to move forward, and to bring us out of our ivory towers so that we can connect with fellow humans, our neighbors for the sake of our own survival, and that of chemistry so that our field can continue to be a contributing factor in economic growth and employment, and in improving the quality of life on earth.