

Letters from India: A Personal Perspective from the Subcontinent

Organic Letters celebrated two decades of publishing great science last year and started a new beginning at the dawn of 2019 under the leadership of Editor-in-Chief Prof. Eric M. Carreira. It is a pleasure to write this Editorial on his initiative of highlighting *Organic Letters'* global reach, especially for bringing forth a Virtual Issue featuring cutting-edge contributions from my country, India.

India! A vibrant nation, home for more than a billion people, the majority of the population young, below the age of 30 years, is a confluence of several languages, cultures, and practices—a subcontinent unto itself. More than 400 years of colonialism and exploitation has had a severe effect on India's economy as well as on the education of its people and its research infrastructure. Organic chemistry though is, and has always been, one of the popular science topics here.

Most of the organic chemistry research work in the preindependence era and just after our independence in 1947 was with the meager resources available at that time. Scientists found the rich flora and fauna of the country an avenue for exciting studies on the isolation and structural elucidation of natural products. The contributions of prominent organic chemists from India, with conventional techniques available, has been phenomenal in this aspect. An impressive array of complex flavonoids, terpenoids, alkaloids, and the like has provided an appetite for great synthetic organic chemists in other parts of the world to attempt their total synthesis.

Organic synthesis research in India underwent a surge in the late '70s with some of the finest synthetic chemistry schools established at the Indian Institute of Technology, Kanpur, and at the University of Hyderabad. These research institutes joined existing ones, such as the Indian Institute of Science, Bangalore, my home institute and the oldest to have a Department of Organic Chemistry in 1911, and the National Chemical Laboratory, one of the prominent laboratories of the chain of laboratories established by the Council of Scientific & Industrial Research (CSIR). It is worth noting that CSIR underlined the importance of the emergence of chemical biology and restructured one of the laboratories as Indian Institute of Chemical Biology in 1982.

The big impetus for chemical research in general came from the government's progressive decision to liberalize the Indian economy in 1991. I was fortunate to start my Ph.D. work at this juncture in January 1992 and to witness the sea change. We moved from a situation in which we were forced to plan research work with the chemicals already available in our laboratories and waiting for years for a ship to arrive at Mumbai port to bring nonfreight chemicals from Western countries to a situation in which we could have a liaison office to facilitate our orders to get chemicals within a year, to the present situation of having manufacturing sites in Bangalore and other cities that not only expedite our ability to acquire chemicals within weeks but also supply chemicals to the rest of the world!

From the beginning of 2006, another decision that contributed enormously to boosting research in India was the government's initiative of setting up new science education and research training institutes. The establishment of seven new Indian Institutes of Science Education & Research (IISERs), 14 new Indian Institutes of Technology (IITs), and several federally funded central universities have provided opportunities for the recruitment of talented and eager early career scientists who have trained in some of the finest laboratories in the world in contemporary areas of organic chemistry. The new initiatives of the federal funding agencies, such as the Science & Engineering Research Board (SERB), has resulted in attracting new talent and establishing excellent emerging research activity.

The inception of *Organic Letters* was just at the time when the Indian economy was expanding its wings. The chemistry contributions of India to all ACS journals, including *Organic Letters*, have made huge strides in terms of quantity and quality in the past two decades, corroborated by the number of articles submitted and published—India trails only China in the number of submissions to ACS journals. Several scientometric profiling efforts about the contributions of India in general to chemistry publications provide further evidence for these gains, in particular to organic chemistry.¹ I am pleased that *Organic Letters* is the journal of foremost choice for organic chemists in India to publish their quality research; we expect this tradition to grow further.

This **Virtual Issue**, "Letters from India," contains 25 selected Letters published within the past two years. The collection includes contributions from well-known senior scientists as well as midcareer researchers but also a significant number from colleagues who have started their independent careers in the past 10 years. I hope you all will like the Virtual Issue and the diversity of the vivid scientific topics. Happy reading!

Kavirayani R. Prasad,* Associate Editor 
Indian Institute of Science

■ AUTHOR INFORMATION

ORCID

Kavirayani R. Prasad: 0000-0003-1453-9798

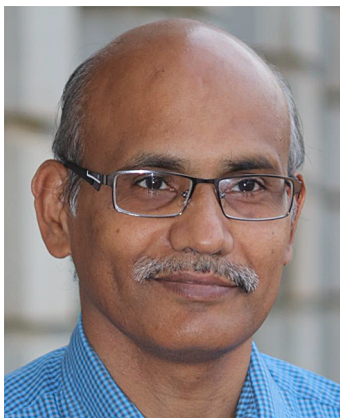
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Views expressed in this editorial are those of the author and not necessarily the views of the ACS.

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Biography



Kavirayani Prasad obtained his Ph.D. in 1997 at the National Chemical Laboratory, Pune, followed by postdoctoral work as an Alexander von Humboldt Foundation Fellow at the University of Münster, Germany, and at Temple University, Philadelphia. After a brief stint as a scientist in medicinal chemistry at Praecis Pharmaceuticals, Waltham, MA, Prof. Prasad joined the Department of Organic Chemistry at the Indian Institute of Science in 2003, where his research interests center around the total synthesis of natural products. Prasad is a recipient of the CSIR-India Shanti Swarup Bhatnagar Prize for Chemical Sciences (2014) and is an elected fellow of the Indian Academy of Sciences.

■ REFERENCES

(1) (a) Dwivedi, S.; Kumar, S.; Garg, K. C. Scientometric profile of organic chemistry research in India during 2004–2013. *Curr. Sci.* **2015**, *109*, 869–877. (b) Arunachalam, S.; Madhan, M.; Gunasekaran, S. Chemistry research in India: making progress but not rapidly. *Curr. Sci.* **2017**, *112*, 1330–1339. (c) Arunan, E.; Brakaspathy, R.; Desiraju, G. R.; Sivaram, S. Chemistry in India: Unlocking the potential. *Angew. Chem., Int. Ed.* **2013**, *52*, 114–117.