

Editorial

The Changing Face of Fluorescence: Addressing the Changes

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As a reader, author, and referee of scientific material, it is gratifying to see how the applications of fluorescence have grown and developed over the past 20 years, fluorescence is now unquestionably the most dominant tool in biochemical and biological research. I recall, as a young Ph.D student, the days of

light sources based on nanosecond coaxial flashlamps, which were rapidly replaced by picosecond dye lasers, in more recent years by femtosecond Ti:Sapphire lasers, and in the last 5 years by low-cost pulsed laser diode and LED based sources, all fueling the growth of fluorescence spectroscopy. I hear stories about the cumbersome DNA sequencing from the early 1980s, done almost exclusively using radioactive labels, before the use of fluorescence probes and the subsequent race and now publication of the human genome. Without the expansion of fluorescence, the sequence might not have been completed. More recently, we have seen that the radiative decay rate of a fluorophore, which is the spontaneous rate at which a molecule emits photons, is in fact *only constant* under certain conditions, but can in fact be modified by the close proximity of metallic surfaces or colloids. Hence, when the possibility of taking on the editorship of the *Journal of Fluorescence* was discussed with me, I knew that it would be a challenging and demanding task to continually address the changing face of fluorescence. But I will not be alone in addressing these changes. I

have invited together a team of energetic leading edge scientists from around the world, the *Journal of Fluorescence's* new Editorial Board, who as experts in their fluorescence field will help me shape the future directions of the new-look Journal.

Not only have the applications of fluorescence changed, but so has the way we publish and retrieve scientific material. Authors readily submit manuscripts electronically to journals and can now track the reviewing process through the Internet. Seldom do I walk to my University library to retrieve a manuscript anymore; instead I simply download articles to my PC. For some journals I can even link to references directly therein. I intend to modernize the *Journal of Fluorescence* by responding to these changes in multimedia publishing, with a future vision of electronic submission, tracking, and reviewing of your manuscripts.

My predecessor, Joseph R. Lakowicz, who foresaw many of these changes, founded the *Journal of Fluorescence* in 1991, and since that time the *Journal of Fluorescence* has grown and matured and is now firmly established as the only peer-reviewed journal *solely* dedicated to publishing papers on the principles and applications of fluorescence. You also may have seen that the *Journal of Fluorescence*, for the first time, has an impact number of 0.771 (year 2000), and has successfully indexed or abstracted the Journal in: Chemical Abstracts, Chemistry Citation Index, INSPEC information services, Science Citation Index, Science Citation Index Expanded, and the ISI alerting service, which provides the best possible coverage for your manuscripts. Whilst it will be difficult to surpass such achievements and visions, with my new editorial board I intend to build further on these accomplishments by further abstracting and indexing the *Journal of Fluorescence*, as well as substantially improving the impact number.

As part of my effort to do this and to address the developments and changes in our field, as well as to

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attempt to popularize the *Journal of Fluorescence* and make it more accessible and attractive to workers in other applications of fluorescence, I will broaden the scope of the new-look *Journal of Fluorescence* by introducing the following:

- more applications of fluorescence, such as: bio-medical; cell biology; correlation spectroscopy; single molecule detection; tissue spectroscopy; DNA; genomics; drug discovery and proteomics, and others
- reflection of its new breadth with a balanced and motivated Editorial Board
- in addition to regular articles, conferences proceedings, reviews, and rapid communications, publishing *Technical and Design Notes* (articles that describe the development of instrumentation or techniques used in the principles and applications of fluorescence [<1500 words]), *Topical News Articles* and *Short Communications*.
- publishing letters to the editor <1000 words.
- including more special issues, topical reviews, and editorials, with the intention of informing the fluorescence community of emerging *Hot Topics*

Also, I recognize that it is important to achieve timely processing and reviewing of your manuscripts. When manuscript reviews are excessively delayed, some authors become understandably frustrated and eventually discouraged regarding future submissions. To reduce the time from submission to publication, I will introduce the following, effective immediately:

- The editorial office now encourages electronic as well as hard-copy, submissions (please see the “Instructions for Authors”).

- Editorial board members will be encouraged to receive electronic files from the editorial office for distribution to reviewers, significantly speeding up the reviewing process.
- *Technical and Design Notes* and *Rapid and Short Communications* will receive **only one review** from another Editorial Board member or referee, designated by the Editor, Founding Editor, or an Editorial Board member, respectively.

It is envisaged downstream that authors eventually will be able to submit and track their manuscripts electronically. We are currently researching the best software platform to do this. I have also introduced a new Journal e-mail address recently, JoF@cfs.umbi.umd.edu, which replaces jf@cfs.umbi.umd.edu.

In conclusion, readers, authors, and referees of the *Journal of Fluorescence* have recently seen the first phase of a whole set of exciting changes to be made to the Journal, by the introduction of the new-look Journal cover. The second phase has involved my succession to Editor, Joseph Lakowicz now taking the role of Founding Editor. The subsequent phases, taking place now, will focus on enabling the *Journal of Fluorescence* to respond to the changes in multimedia publishing and address the changing needs of the fluorescence community.

I hope you will continue to support the *Journal of Fluorescence*.



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