



A brief history of the Journal of Fluorine Chemistry

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Abstract

The beginnings of the Journal of Fluorine Chemistry in 1971 and its development to vol. 100 in the year 2000 are summarised. Mention is made of the people who have made major editorial contributions and also of the various features and Special Issues and that have been introduced. © 1999 Elsevier Science S.A. All rights reserved.

1. Foundation

Early in 1970, Dr. Willem Gaade, one of the founders of the scientific part of Elsevier, Amsterdam, felt that there was a place for a new Journal devoted to Fluorine Chemistry. He thought that it would appeal to specialists in the subject, following the success, in its field, of the Journal of Organometallic Chemistry.

At that time, opinion on new Journals was divided. Many believed that the chemical literature should not be further fragmented, that new work would not become known, that non-specialists would not look at such Journals, and, the real reason, that the Society Journals would lose support. Others felt that experts in an important field welcomed a Journal devoted to it, that new abstracting techniques ensured that all papers would be covered, and that few read papers much beyond their speciality anyway, except in a literature search. Other factors were that the Society Journals often treated Authors with little consideration, Referees were over-critical, and some parts of the chemical scene were regarded as more equal than others. Fluorine chemistry was one of the others.

Dr. Gaade wrote to many of the then best-known authors of papers in Fluorine Chemistry, to test opinion. It was surprisingly favourable, he decided to press ahead and we are all indebted to him for his foresight. Prof. H.J. Emeléus and I were invited to found the new Journal, as Editors-in-Chief (to my surprise, feeling that my support had been only lukewarm). Those of his correspondents in favour of the project were invited to join the Editorial Board. Their role was vital to success. They were asked to submit papers of

their own, to solicit some from colleagues, to act as Referees, and to publicise the Journal at Meetings, etc. Original papers and preliminary notes were sought, 'concerned with research on the chemistry of fluorine and its compounds where that halogen is a dominant element', in the English, French or German languages, and of course, not published previously. Refereeing policy was to be rigorous on the science, but to allow Authors to present their work with as few artificial constraints as were consistent with good standards.

Members of the original Editorial Board were: P. Allamagny, A.K. Barbour, N. Bartlett, G.H. Cady, R.D. Chambers, C.B. Colburn, W.R. Cullen, O. Glemser, P. Hagenmuller, R.N. Haszeldine, C.K. Jørgensen, I.L. Knunyants, L. Kolditz, C.G. Krespan, W.K.R. Musgrave, J.D. Park, C.R. Patrick, R.D. Peacock, R. Schmutzler, F. Seel, A.G. Sharpe, J.M. Shreeve, R. Stephens, H. Suschitzky, C. Tamborski, P. Tarrant, J.M. Tedder, L.A. Wall and A.A. Woolf. The great and good of the subject at that time were well represented, with some younger colleagues. Several of them are still serving.

At Elsevier, sadly, Dr. Gaade had died before the new Journal was launched. Marc Atkins (Amsterdam) and Ian Holmes (Lausanne) took charge of policy matters and production for it. The Editors were pleased by the early input of papers, and the first issue appeared in July 1971 [vol. 1 (1971/1972) 1–128; all later references are to *J. Fluorine Chem.*].

The contents list is of interest, with contributions from the following and their co-authors: J.M. Shreeve, perfluoroalkyl-sulphur compounds; H.J. Emeléus, reactions of the bis(trifluoromethyl)nitroxide radical; G.M. Sheldrick, crystal structure of one of the products; P. Tarrant, pentafluoropropenyl-containing carbinols; W.R. Cullen,

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perfluoroalkynyl derivatives; R.D. Chambers and W.K.R. Musgrave, polyfluoro-nitrogen heterocycles; W.J. Middleton, fluorinated oxazolidinones; A.W. Jache, HF-phosphorus reaction; S.F. Campbell, R. Stephens and J.C. Tatlow, polyfluorobicyclo-2,2,1-heptanes; F. Seel, difluor-disulfandifluorids (in German); D.J. Burton, fluorinated ethylenes and difluoromethylene olefinations; A.A. Woolf, SO₃-BrF₃ system. Together, they made a good first issue, with the subject matter still interesting us today.

2. Consolidation

The Journal originally appeared quarterly, but there were soon enough papers to justify an issue each month. The standards of the first issue were fully maintained, and, having seen the early issues, most leading schools of fluorine chemistry began to submit a proportion of their output.

It was decided that, for distinguished fluorine chemists, particularly those associated with the Journal, we would publish Special Issues for anniversaries, such as significant birthdays, and Memorial Issues or Obituary Notices for the deceased. Anniversary and Memorial Issues have always been organised by colleagues of the proposed subject, who have been invited to act as Guest Editors. Contributions in all three categories are listed below in Sections 4–6, respectively.

The Journal was always run from Lausanne by a subsidiary company, Elsevier Sequoia. Marc Atkins' responsibilities were taken over later by Louk Bergmans, the Managing Director, and E.J. Vogelezang. I take this opportunity to acknowledge the contributions made to the Journal by them and by many other people at Elsevier and Elsevier Sequoia over many years.

A financial crisis arose in 1974. There was no shortage of papers, but costs outweighed subscription income. The Journal was typeset in monotype lead blocks and each figure was redrawn using stencils — labour-intensive and expensive processes. It was decided to replace them by direct photo-reproduction of Author's own manuscripts. Though this procedure was well-known with Journals for preliminary communications, ours was one of the first chemical Journals to use it for normal papers. Our notice at the time [4 (1974) 345] stressed the positive, but obviously not the negative, aspects of the change. Photo-reproduction of papers began with vol. 5 in 1975, and, looking back, our good earlier standards of presentation, for that time, were largely maintained. I would like to pay a belated tribute to the many Authors who strove to produce typescripts of good quality and to eradicate errors.

In 1977, Harry Emeléus decided to retire as Editor-in-Chief. His influence on all aspects of the foundation and progress of the Journal had been paramount. He maintained an interest later as Honorary Consultant Editor. Prof. D.W.A. Sharp took over from him as Joint Editor-in-Chief,

servicing with dedication up to the present day. Another important appointment in 1978 was that of Mr. John McKillop as Journal Manager at Lausanne, to take over responsibility for day-to-day running of the Journal. His hard work and expertise have contributed greatly to its status.

3. Developments

Over the years, there has been a progression of changes of note, of innovations and of attempts at improvements, the most significant of which are as follows:

1980: General review papers with no experimental part were published, originally by invitation, later by submission in the normal way. At around the same time, and more contentiously, issues were devoted to the Abstracts of Papers presented at the important International Symposia.

1984: The first issue of vol. 25 was a special celebratory one [25 (1984) 1–110]. Members of the Editorial Board were invited to write on any aspect of the subject that particularly interested them.

1986: To commemorate the centenary of the first isolation of elemental fluorine by Henri Moissan, a book entitled, "Fluorine the First Hundred Years (1886–1986)", was published by Elsevier Sequoia. The editors were R.E. Banks, D.W.A. Sharp and J.C. Tatlow, the various chapters being contributed by leading authorities in the field. Its appearance was timed to coincide with the Symposium in Paris in August 1986 to mark the occasion. Subsequently, the book contents appeared as a Special Issue of the Journal [33 (1986) 1–399].

1988: A fourth type of paper, "Fluorine Chemistry Syntheses" was introduced [38 (1988) 131].

1991: The Journal was again typeset, by a new process, after vol. 55 (1991).

1992: John McKillop left Elsevier as production facilities were reorganised. Responsibility for the Journal was taken over by the Publishing Editor, Guido Zosimo-Landolfo. Processing of manuscripts was transferred to Oxford, under Gil Middleton.

1993: A new and larger format, with improved appearance, was introduced from vol. 65 (1993).

1993: Louk Bergmans retired as Managing Director of Elsevier Sequoia.

1994: Elsevier Sequoia became Elsevier Science S.A.

1996: Abstracts of selected patents relative to fluorine chemistry began to appear as a special section in many monthly issues.

1997: J.C. Tatlow retired as Joint Editor-in-Chief, becoming Honorary Editor. Regional Editors were appointed as follows [81 (1997) ix]: D.W.A. Sharp, for Europe, Africa and Australasia; T. Nakajima, for Asia; B.E. Smart, for the Americas; S.R. Sterlin, for the Patents section.

1997: Processing of manuscripts was transferred to Elsevier Science Ireland at Shannon.

1998: Responsibility for overall control of the Journal passed to Adrian Shell at Oxford.

1998: A new category of issue was envisaged, with papers based on a theme, for example to give readers an overview of current work on a particular topic [Foreword, 87 (1998) 135] or on industrial aspects [95 (1999) 15]. Those published so far are listed in Section 7

1998: Elsevier Science introduced the Harry Emel us Prize awarded biannually in recognition of outstanding contributions to fluorine chemistry by a young scientist [95 (1999) 1]. In addition to a medal and a monetary prize, the recipient is invited to give a lecture, based on their work, the text to appear in the Journal. The award for 1998 went to Dr Viacheslav A. Petrov of DuPont Central Research and Development, Wilmington, DE, USA. [V.A. Petrov, F. Davidson, 95 (1999) 5–13].

4. Anniversary issues

This type of issue has been arranged in honour of the following fluorine chemists:

G.H. Cady, 70th birthday [7 (1976) 1–361]; M. Stacey, 70th birthday [10 (1977) 437–624]; H.J. Emel us, 75th birthday [11 (1978) 197–484]; W.T. Miller, 70th birthday [18 (1981) 305–604]; O. Glemser, 75th birthday [34 (1986) 1–58]; W.K.R. Musgrave, 70th birthday [40 (1988) 81–434]; A. Jache, retirement from Marquette University [52 (1991) 1–105]; N. Watanabe, 70th birthday [57 (1992) 1–329]; Jean'ne Shreeve, 60th birthday [66 (1994) 95–214]; L.M. Yagupolskii, 70th birthday [69 (1994) 195–247] and Y. Kobayashi, 75th birthday [97 (1999) 1–272]. Most have comprised a collection of research papers, not necessarily related to the Subject's own work, submitted specially to mark the occasion by their former students and by colleagues. Glemser's was a summary of his work and a list of his papers.

5. Memorial issues

Issues in appreciation of the contributions of the following fluorine chemists have appeared: M. Schmeisser, 1912–1981 [19 (1981/1982) 205–615]; J. Slivnik, died 1983 [24 (1984) 271–385]; G.G. Yakobson, 1928–1984 [28 (1985) 1–137]; J.H. Simons, 1897–1983 [32 (1986) 1–134]; C.B. Colburn, 1923–1988 [48 (1990) 309–440]; I.L. Knunyants, 1906–1990 [65 (1993) 181–238]; G.H. Cady, 1906–1993 [68 (1994) 237–292]; papers presented at the ACS Memorial Symposium for G.H. Cady [71 (1995) 155–228]; L.S. German, 1931–1994 [77 (1996) 105–194] and A.F. Clifford, 1919–1995 [89 (1998) 1–135]. Again, the issues consisted

of original papers, submitted by students and by colleagues, specifically as a tribute, but not necessarily on the subject's own speciality. In some cases, however, papers have been included which carry the name, as a co-author, of the deceased person honoured.

6. Obituary notices

These have appeared in tribute to the following: L.A. Wall, died 1972 [2 (1972/1973) 337]; H.J. Emel us, 1903–1993 [67 (1994, No. 1) vii–viii]; M. Stacey, 1907–1994 [73 (1995, No. 1) vii–ix] and W.T. Miller, 1911–1998 [98 (1999) 1].

At the 15th International Symposium on Fluorine Chemistry at Vancouver in 1997, a meeting was organised by Milos Hudlicky, that he called a 'Retrospective', to give colleagues an opportunity to reminisce about now-dead fluorine chemists. Most of these had not been the subjects of Memorial Issues or Obituary Notices in our Journal, and the contributions were written up and published [90 (1998) 151–211]. The names of those included were: R.A. Bekker (1938–1983)²; E.D. Bergmann (1903–1975); L.A. Bigelow (1892–1973); L.A. Cohen (1926–1996); C.B. Colburn (1923–1988); B.L. Dyatkin (1931–1975); L.S. German (1931–1994); N. Ishikawa (1926–1991); W. Klemm (1896–1985); I.L. Knunyants (1906–1990); E.T. McBee (1906–1973); J.D. Park (1906–1988); O.R. Pierce (1921–1979); W. Postelnek (1918–1997); B.C. Saunders (1903–1983); M. Schmeisser (1912–1981); W.A. Sheppard (1928–1978); J.M. Tedder (1926–1994); N.N. Vorozhtsov (1907–1979); C. Woolf (1919–1974) and G.G. Yakobson (1928–1984).

7. Thematic issues

These were not formalised until 1998 (see above) but there were several earlier issues of the same general type. The full list of issues on a theme, that have appeared so far, is as follows: Special Issue devoted to papers from the XVIth ISFR Conference (Noyon, Switzerland; 1987) on aspects of fluorine in the natural environment [41 (1988) 1–110]; papers from European Union Networks on Fluoroorganic Chemistry [80 (1996) 1–66]; Fluorine Chemistry, a Citation based Bibliography, 1995 and 1996 [both by A.P. Schubert, 81 (1996) 1–97 and 85 (1997) 1–109]; Electrochemistry of Fluorinated Compounds [87 (1998) 137–243]; Industrial Research Section containing papers from Ausimont [95 (1999) 17–116]; Chemistry, Technology and Applications of Fluorine Compounds in Industry (Papers given at an International Conference at St. Petersburg, Russia, 1997) [96 (1999) 1–75].

²See also, 95(1999)181.

8. Conclusion

After 28 years, and the publication of thousands of papers in hundreds of issues, this Journal has made a vast contribution to the literature of fluorine chemistry, and has been central to the continuing development of the subject. In the Houben-Weyl series on Methods of Organic Chemistry, a vast compendium of methods of synthesis of C–F bonds, and of the reactions and reactivities of organofluorides, is just appearing; 'Organo-Fluorine Compounds, vol. E10', in four volumes. Very significant proportions of the literature citations, in all the vast and comprehensive sectional bibliographies, are to papers in *J. Fluorine Chem.*, emphasising the importance in the field that it has achieved.

For many years to come, may the Journal continue to provide all fluorine chemists with a ready means of publishing their work, for appraisal by other workers in the area and by the wider scientific public: reports of original research, with full experimental detail; critical reviews of areas that interest them; preliminary notes for rapid announcements; and tried and tested synthetic procedures. Who can say at this moment whether traditional Journals in hard copy will

survive, or electronic means of display may take over, or perhaps both will exist side-by-side. Whatever the means of presentation, it is necessary that scientific papers describing original research carry full descriptive detail and are always subjected to rigorous, but not doctrinaire, refereeing by experts in that specialised field.

Acknowledgements

We are all indebted to the very many people who have helped to create a Journal of good standing: firstly to all those Authors, whose papers have, collectively, established that status, and who have accepted criticisms of their manuscripts with good humour and forbearance; also, to all our Editorial colleagues at Elsevier at all levels who have contributed their work and enthusiasm to the service of the Journal. My thanks go to Ian Holmes, Reina Bolt, John McKillop, Guido Zosimo-Landolfo and Adrian Shell, who have searched memories and archives to help me to gather this information.