

HISTORY OF MATCH

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Abstract

The basic facts on the journal “**MATCH** *Communications in Mathematical and in Computer Chemistry*” are given, covering the period 1975–2004.

Beginnings

The circumstances under which MATCH was created are described in the two preceding papers [1, 2]. In the first half the 1970s on many places of the world new research started in an area that nowadays is called Chemical Graph Theory. We are now well aware that the roots of Chemical Graph Theory are much deeper and go back to the middle of the 19th century. Yet, until 1970 very little work was done in chemistry that explicitly utilized graph theory. (There of course, were “early birds”, first of all Alexandru Balaban [3], but also others, e. g., [4].) And then, soon after 1970, an explosion happened. The titles of the papers [5–13] should recall the flavor of those times.¹

¹The papers [5–13] are chosen so that none of their authors participated on the Mülheim 1975 Microsymposium.

It was therefore timely to organize a scientific meeting on this topic. This indeed was done by Professor Oskar E. Polansky, director of the Institute for Radiation Chemistry (Institut für Strahlenchemie) in Mülheim, Ruhr (Germany).²

On May 26–28, 1975, the “*Microsymposium: Graph Theory in Chemistry*” took part at the Institut für Strahlenchemie. In addition to Polansky, the organizers were Alexandru T. Balaban (Institutul de Fizica Atomica, Bucharest, Romania), Adalbert Kerber (Rhein–Westfälische Technische Hochschule, Aachen, Germany), Peter J. Plath (University of Bremen, Germany), and Nenad Trinajstić (The Rudjer Bošković Institute, Zagreb, Yugoslavia).³

There were 36 participants on the Microsymposium, of which three from Switzerland (among them André Dreiding), two from Bulgaria (among them Nikolay Tyutyulkov), three from Yugoslavia (or more precisely, from what today is Croatia), one from England (Roger Mallion), one from Austria, one from South Africa (Dennis Rouvray), and the rest from Germany.⁴

The participants of the Microsymposium considered the possibility of starting a periodical devoted to (as they called then) Mathematical Chemistry. They coined the name **MATCH** as a kind of acronym from **MAT**hematical **CH**emistry. For this publication (which then was not considered as a true scientific journal, see below) the awkward title **MATCH** *Informal Communications in Mathematical Chemistry* was chosen. Its first issue appeared within less than five months.

MATCH No. 1

The first issue of **MATCH** was published in 1975, dated October. Its Editors were Alexandru Balaban, André Dreiding, Adalbert Kerber, and Oskar E. Polansky. Evidently, Polansky was the chief Editor, but this was nowhere indicated, either in

²Somewhat later, in 1981, this became a Max–Planck–Institute. In 2003 the Institute changed its name (and probably also the field of research), being transformed into *Institut für Bioorganische Chemie*.

³Balaban was not permitted to leave Romania, so he did not participate on the conference and did not take part in the talks on which the launching of a mathematical–chemistry journal was decided and the name **MATCH** chosen for it.

⁴The author of this text could not come because in that time he was serving the one-year compulsory army service.

No. 1 or in any later issue. (For more details see the section “Editors and Editorial Board”.)

In the Editorial, written by Oskar Polansky, the purpose and the intended scientific profile of **MATCH** were explained [14]. It is worth quoting parts of this text:

match should not be the usual type of scientific journal. Instead, it should be a periodical for private communications, preprints, discussions, reports, reviews and the articulation of new ideas in the field of mathematical chemistry. In order to improve its practical usage, match will also list or abstract new papers and books if sufficient notice from the authors is received.

To make things worse, Polansky continues [14]:

To preserve the informal character of match, the readers are kindly asked not to cite any contribution without permission of the author.

With such a start it is a true miracle that *MATCH* did not vanish short time after its birth. Yet the miracle happened and **MATCH** survived its first 30 years. The main reason for this could be that Polansky did not consequently follow his Editorial. Soon, original scientific papers (many written by Polansky himself and by his numerous visitors) started to appear in **MATCH**, gradually changing it from an informal newsletter into a serious internationally recognized journal in which exclusively original (multiply refereed) scientific papers are appearing. Yet, many of the ill-chosen features of **MATCH** No. 1 are dogging us until these very days. Some of these are discussed in due detail in the two subsequent sections.

MATCH in 1975–2004

In the thirty-years period 1975–2004 fifty two issues of **MATCH** were published. On each issue the year and the month of appearance is indicated, from which hardly any regularity could be envisaged. Anyway, in average 1.73 issues of **MATCH** were published annually. For the period 1995–2004 this average is 2.10. More data on this matter is found in Table 1.

year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1975										1		
1976									2			
1977												3
1978									4			
1979						5				6	7	
1980					8					9		
1981	10							11		12		
1982												13
1983						14						
1984		15						16				
1985	17				18							
1986				19						20		21
1987								22				
1988							23					
1989				24								
1990					25							
1991										26		
1992										27		28
1993								29				
1994					30							31
1995									32			
1996			33							34		
1997			35							36		
1998			37							38		
1999			39							40		
2000			41							42		
2001			43							44		
2002			45							46		
2003	47	48							49			
2004		50		51					52			

Table 1. Dates of publications of **MATCH**. Only in the period 1996–2002 some regularity did exist. Our plan is that in the future exactly two volumes of **MATCH** be published per year, but that a volume may consist of several (at the beginning, of two) issues.

Title

When the journal was founded in 1975, its title was

MATCH *Informal Communications in Mathematical Chemistry*

It was so until No. 7 (1979), after which the word “informal” was deleted. This happened after the author of this text had a discussion with Oskar Polansky, succeeding

to persuade him that no serious scholar will ever send a serious scientific paper to a journal declared by itself to be “informal”. Anyway, starting with No. 8 (1980) the title became:

MATCH *Communications in Mathematical Chemistry*

and remained so until No. 34 (1996). Then Adalbert Kerber, the new Editor, extended the title into

MATCH *Communications in Mathematical and in Computer Chemistry*

starting with issue No. 35 (1997). This title is maintained until the present days, and will remain such also in the foreseen future.

Starting with issue No. 1, the complete title of the journal was written by lower-case letters. This might have been justified from an artistic point of view, but caused (and is still causing) a lot of problems and misunderstandings with regard to quotation, catalogization, ranking, location and availability in electronic data bases, and similar. Over many years the official impact factor of **MATCH** was unrealistically low, and — this author is afraid — still is.

Numerous authors quoted, and are still quoting, the journal as *match*, or *Match*, and some have invented *MatCh*. Other authors skip the first word and quote us as *Commun. Math. Chem.*, whereas others write *Commun. Math. Chem. Match* or *Commun. Math. Comput. Chem. (MATCH)*. Some skip also the second word, writing *Math. Chem.* or *Math. Chem. (MATCH)* or *Math. Chem. (match)*. Of the several other forms in which **MATCH** was quoted in the scientific literature we mention only an especially awkward one, that appeared in a mathematical article: *Communications in Mathematical Match and in Computer Chemistry*. Needless to say how painful and harmful this practice is for our journal.

In order to avoid further erratic quotations (causing a lot of damage to the journal and, indirectly, also to the authors who publish in the journal), we repeat: **MATCH** *Communications in Mathematical and in Computer Chemistry* should be quoted as

MATCH Commun. Math. Comput. Chem.

whereas issues that appeared before 1997 as

MATCH Commun. Math. Chem.

Starting with **MATCH** No. 50 (2004) some technical changes have been made (on the top page of each article, cf. the present issue), aimed at achieving a more appropriate form of quotation.

As time passed it became more and more evident that the name **MATCH** (or, as it is spelled by many: **match**) is not the best choice for a serious scientific journal.⁵ It would therefore be interesting to see how the founder of the journal commented this decision [14]

In thinking about the title of the new publication, one can only conclude that match is indeed a very paradoxical word. A well-matched relationship is one which can be both compatible and competitive. Compatibility originates from a common basis where similar ideas find acceptance and also common criticism. Competition between well-matched pairs is the healthy counterpart of compatibility. ... Hopefully, our match will provide a forum for the synthesis of these seemingly contradictory elements. New ideas should be matched against each other and against accepted concepts. At the same time these ideas should be well-matched with concepts originating in the overlapping areas between mathematics and chemistry. The goal of match – Mathematical Chemistry – then, is to bridge the gap which currently exists between chemistry and mathematics.

Publishers

In the period 1975–1994 **MATCH** was published by the Max–Planck–Institut für Strahlenchemie, Mülheim a. d. Ruhr (Germany). In that period issues No. 1–31 were produced. Starting with issue 32 (1995), the publication of **MATCH** was overtaken by Adalbert Kerber at the Department of Mathematics, University of Bayreuth (Germany). Kerber was the Publisher of **MATCH** until 2002. He produced the issues No. 32–46. From 2003 the Publishers of **MATCH** are the University of Kragujevac and the Faculty of Science Kragujevac (Serbia and Montenegro).

Needless to say that the change of the Publishers reflects who the Editors and the members of the Editorial Board of **MATCH** were and are. This is outlined in due detail in the subsequent section.

⁵Because in 1975 there was no other journal devoted to mathematical chemistry, any title could have been chosen. The most appropriate would, perhaps, be *Journal of Mathematical Chemistry* or simply *Mathematical Chemistry*.

Editors and Editorial Board

As explained in the first section, the first issue of **MATCH** was edited by A. T. Balaban, A. S. Dreiding, A. Kerber, and O. E. Polansky (as we read on the cover of No. 1), or, in other words, “*edited in cooperation with A. T. Balaban (Bucharest), A. Dreiding (Zurich) and A. Kerber (Aachen) by Oskar E. Polansky (Mülheim/Ruhr)*” (as we read on the first page of No. 1). The latter text was repeated also in No. 2 (1976), but not in any of the following issues. The names of the four Editors appeared on the cover (always in the same, alphabetical, order) until No. 25 (1990), without any indication that Oskar Polansky would be some kind of Editor-in-Chief. The fact what Polansky was for **MATCH** was so obvious and so well known that there was no need to write it down. Yet, after Polansky’s death (in January 1989), in No. 24 (1989) the three remaining Editors informed the readers *of the passing away of Prof. Dr. Oskar E. Polansky, the chief Founder and Editor of the journal MATCH, Communications in Mathematical Chemistry* [15].

Starting with No. 26 (1991), on the cover of all issues of **MATCH** it is written *Founded by Oskar E. Polansky*[†].

Alexandru T. Balaban, André Dreiding, and Adalbert Kerber are Editors of **MATCH** until the present days and, hopefully, will remain so for many years ahead of us.

However, after Polansky’s death a new chief Editor had to be employed. In issues No. 26 (1991) – 31 (1994) Kerber and Dreiding appear as *Organizing Editors*. Then, in 1995, as the Publisher of **MATCH** changed (see above), Kerber became *Managing Editor*, and remained so until 2002. In that period the issues 32 (1995) – 46 (2002) were created. For formal reasons Kerber did not want to declare himself as Editor-in-Chief, what in reality he was.

In 2003 **MATCH** moved to Kragujevac, Serbia (and, of course, changed the Publisher, see above). The author of this text has been then employed as Editor-in-Chief, what he will remain also in the following next few years. Until now, the present Editor-in-Chief produced the issues No. 47 (2003) – 53 (2005).

Starting with No. 26 (1991) the team of three Editors of **MATCH** (Balaban, Dreiding, Kerber) was extended by an Editorial Board. The constitution of this Editorial Board changed significantly in the course of time, and some of its members were upgraded into Editors. A list of all (former and current) members of the Editorial Board and Editors (other than Balaban, Dreiding, Kerber) are found in Table 2.

	Editorial Board	Editor
D. Bonchev	26 (1991) –	
J. Brickmann	39 (1999) – 48 (2003)	
J. Brocas	32 (1995) – 38 (1998)	
H. B. Bürgi	26 (1991) –	
J. Cioslowski	51 (2004) –	
M. V. Diudea	41 (2000) –	
De Witt L. Sumners	26 (1991) – 51 (2004)	
H. Dolhaine	40 (1999) –	
S. J. Cyvin	26 (1991) – 38 (1998)	
A. Dress	26 (1991) – 51 (2004)	
P. W. Fowler		32 (1995) –
S. Fujita	52 (2004) –	
J. Gasteiger	26 (1991) –	
I. Gutman	26 (1991) – 31 (1994)	32 (1995) –
W. Hässelbarth	26 (1991) – 48 (2003)	
H. Hönl	40 (1999) –	
P. E. John	40 (1999) –	
D. J. Klein	30 (1994) – 31 (1994)	32 (1995) –
M. Klin	30 (1994) –	
V. Kvasnička	31 (1994) –	
X. Li	50 (2004) –	
B. Mohar	45 (2002) –	
K. Mislow	26 (1991) – 30 (1994)	
L. Pogliani	49 (2003) –	
M. Quack	26 (1991) – 49 (2003)	
J. Rada	49 (2003) –	
B. Rohde	26 (1991) – 40 (1999)	
C. Rücker	33 (1996) –	
H. Sachs	26 (1991) –	
K. Schaffner	26 (1991) – 39 (1999)	
E. Schumacher	26 (1991) – 39 (1999)	
P. Schuster	26 (1991) – 51 (2004)	
T. E. Simos	40 (1999) –	
G. Tinhofer	41 (2000) –	
S. S. Tratch	40 (1999) –	
N. Trinajstić	34 (1994) –	
K. Varmuza	33 (1996) –	
I. Ugi	26 (1991) – 31 (1994)	32 (1995) – 46 (2002)
E. Wasserman	26 (1991) – 50 (2004)	
M. Zander	26 (1991) – 39 (1999)	
N. S. Zefirov	26 (1991) – 31 (1994)	32 (1995) –

Table 2. Members of the Editorial Board and Editors of *MATCH*, other than Balaban, Dreiding, Kerber, and Polansky, and the time of their engagement.

One quarter of all issues of **MATCH** are conference proceedings or are devoted to special topics or are honoring distinguished mathematical chemists on the occasion of some of their anniversaries. These issues were edited by Guest Editors. Details are given in Table 3.

issue	Guest Editor(s)	topic
6 (1979)	Peter J. Plath	Proceedings of the <i>Bremer Konferenz zur Chemie</i> , Part 1
7 (1979)	Peter J. Plath	Proceedings of the <i>Bremer Konferenz zur Chemie</i> , Part 2
9 (1980)	Andreas W. M. Dress Joachim Neubüser	Proceedings of the Conference <i>Kristallographische Gruppen</i> , Part 1
10 (1981)	Andreas W. M. Dress Joachim Neubüser	Proceedings of the Conference <i>Kristallographische Gruppen</i> , Part 2
27 (1992)	Adalbert Kerber	Generatoren für molekulare Graphen, Nomenklaturfragen
29 (1993)	Sven J. Cyvin	Topological Aspects of Benzenoid Hydrocarbons and Related Structures
33 (1996)	Patrick W. Fowler	Mathematical Aspects of the Fullerenes
35 (1997)	Ivan Gutman Sandi Klavžar Bojan Mohar	Fifty Years of the Wiener Index
40 (1999)	Mikhail Klin Gottfried Tinhofer	Algebraic Combinatorics in Mathematical Chemistry
42 (2000)	Douglas J. Klein Jürgen Brickmann	Partial Ordering in Chemistry
44 (2001)	Mircea V. Diudea Ovidiu Ivanciuc	70th Birthday of Alexandru T. Balaban
46 (2002)	Sherif El-Basil Adalbert Kerber E. Keith Lloyd	Tables of Marks in Chemistry
48 (2003)	Patrick W. Fowler Peter E. John	75th Birthday of Horst Sachs

Table 3. Special issues of **MATCH** and their Guest Editors.

Secretaries, Assistants, Managers

Several people, referred to as Managing Editors or Secretaries, assisted in the production of **MATCH**. At this point the names of Dr. H. J. Kuhn [1 (1975) – 23 (1988)], Mrs. Renate Wolf [2 (1976) – 30 (1994)], and Dr. (Miss) Dušica Vidović [47 (2003) – 51 (2004)] should especially be mentioned. Our thanks should go both to them and to the numerous unnamed helpers.

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