1.75 YEARS OF HELVETICA CHIMICA ACTA

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On the 25th of September 1917, the 'Basler Nachrichten' reported that Basel had beaten Zürich 4:2 at soccer, and that the Swiss Chemical Society had decided on the 11th of the same month to publish a national journal of chemistry. The front-page news of the day were heavy artillery fire at Chemin-des-Dames, and the bombing of Bar-le-Duc by the German air-force.

Die Gründung einer wissenschaftlichen chemischen Zeitschrift in der Schweiz.

Die Schweizerische Chemische Gefellich aft hat in ihrer in Zürich am 11. September abgehaltenen Berfammlung einen Beichluß von großer Tragweite gefaht: sie will nämlich eine wissenschaftliche demische Zeitschrift berausgeben, in welcher Arbeiten in den brei Randesprachen Aufnahme finden sollen.

Diefer Belchluß ichaft ein neues wissenschaftliches Fachorgan, um das sich ein weiteres Publitum taum befümmern wird. Aber in unferen Tagen ist eine berartige Gründung als eine nationale Tat zu bewerten, und sie berdient darum wohl, auch in der Oeffentlichteit besprochen zu werden.

Es ift bisher als fast felbftverständlich betrachtet morben, bag bie in ber Schweis ausgeführten miffenschaftlichen demischen Untersuchungen je nach ber Sprach-zugehörigteit bes Autors in bem einen ober anbern ber uns umgebenden Länder erschienen. Die großen chemi. ichen Gefellichaften bes Muslandes verfügen über mohlausgebaute Beitschriften, die durch ihr rafches Erscheinen und ihre große Berbreitung ben Autoren biele Borteile bieten. Aber es ift ein Unrecht gegenüber bem Schweigervoll, daß die mit den Mitteln des Bundes ober der Rantone errichteten und unterhaltenen Hochichullaboratorien ihre miffenschaftliche Produttion fo leichten Bergens bem Ausland überlaffen: handelt es fich boch dabei um ziemlich große Zahlen, indem beispielsweife im Jahre 1918 nach forgfältiger Zählung und Sichtung nicht weniger als 150 rein wiffenschaftliche chemische 21r. beiten (abgesehen von den über 100 Beröffentlichungen auf bem Gebiete der angewandten Chemie, der Rahrungsmittelchemie, ber Pharmazic ufm., und abgesehen von ben rund 100 Differtationen chemifchen Inhalts) im Gefamtumfang von 1530 Geiten in unferem Lande verfaßt worben find.

Run bestehen bereits eine ganze Reihe von angeschenen wissenschaftlichen Zeitschriften in der Schweiz: sie erscheinen z. B. als Organe der Naturforschen Gesellschaften. Für die Publikation chemischer Untersuchungen haden sie leider keine grohe Bedeutung. Denn die chemische Fachwelt kennt sie nicht und liest sie nicht; sie möchte chemische Dinge nicht ausannensuchen müssen unter vielen Arbeiten aus anderen Wissensgebieten, sondern zigen Dett bezuem und ohne Zeitverluss in einem einzigen Dett bereinigt sehen.

Und den fantonalen Gesculfchaften fehlt das so wesentliche einigende Band, durch das eine mehrsprachige Zeitschrift alle Schweizer Umemiker, die bisher nach links und nach rechts dem Ausland ihren Aribut zollten, zufammenhalten wird.

Es wäre töricht, fich bei einer solchen Neugründung ben Schwierig teiten zu verschlieben, die von allen Geiten auftauchen können. Die erste Gorge ift natürlich die fin an gielle: die Echweizerische chemische Eefellschaft hofft, bei Ednnern und Freunden den nötigen Rüchalt für die schwierigen ersten Jahre gu finden.

Ein weiterer Einwand gründet sich darauf, daß doch eigentlich die ichweigerischen Forcher im Gebiete der Ehemie gar keine Ein h eit darftellen. Man kann kann von einer ichweigerischen demilchen Schule sprechen, die Probleme der wissenschaftlichen Themie sind nicht bodenständig, die innere Rotwendigtett für die Neugründung cheint zu fehlen. Wer den der Geweigerischen chemischen Geschlicht, aber auch ungewöhnlich start angeregt von der Mannigfaltigtei und Bielfeitigteit der vorgeten und unster gestitige Seben durchaus normale, charafteristiche Erscheiten. Gie ihr die Vergen und und unster gestitige Seben durchaus normale, charafteristiche Erscheitung, die unster natürlichen Bodenund vollsverchäftigte Underschrieden Boden der Freiheit und Unabhängigteit, und das Gemeinfame der Schweiger Forcher liegt gerade darin, daß jeder fogulagen seine Schue Satie darie.

Wenn die Schweiger Themiler ben großen ausländischweiger Theilen gar nicht mehr oder nur mehr zum Teil zur Verfügung stellen, so begehen sie fast eine Art ber Undantbarteit; viele Jahre durften sie undeschränkte Gastifreundschaft genießen, nitgends ist ihnen die Aufnahme verweigert worden, und gerade jeht, in bösen Zeiten, wo die Quellen wissenischafticher Publikation spärlicher fließen, ziehen auch sie sich in die engen Grenzen des Upenlandes zurück.

Aber in dem Plane der mehrfprachigen Zeitschrift liegt ein Reim verstedt, der für die jest unter sich verfeindeten Nacharländer zu großer Bedeutung auswachjen kann. herr Bundestart Motta ihrach 1915 als damaliger Bundespräsichent an der Jahresverjammlung der Schweigerischen Naturforschenen Gesellichaft in Genf in erhadenen Worten von der ichönen Verschnerrolle, welche der wissenkonstlicher Schweiz nach dem Kriege zufalle. hier ist nun ein pratiticher greisbnere Schritt in vieser Lichung getan: auf dem Soben einer neutralen Zeitschweitig aussprechen nich deiter Barteien wieder finden und sich gegenfeitig aussprechen, und dann wird sich zeigen, das die Schweizer Schmitter des Dankes nicht vergesigen halten, den wisser sindt The driving force behind the decision to create a Swiss journal of chemistry was *Karl Friedrich Rudolf Fichter* (1869–1952) [1], professor of inorganic chemistry at the University of Basel. He was a native of Basel, did his Ph. D. with *R. Fittig* in Strasbourg, and became known for having prepared beryllium for the first time in highly purified form, and especially for his fundamental work on organic electrochemistry.



In his efforts to found what was to become *Helvetica Chimica Acta* (*HCA*), he was actively supported by *Philippe-Auguste Guye* (1862–1922) [2], professor of physical chemistry at the University of Geneva, who was president of the Swiss Chemical Society during 1917 and 1918, the crucial years for the conception and realisation of *HCA*. (The Swiss Chemical Society came into existence on August 6th, 1901, with *Alfred Werner* as its first president.) *Ph.-A. Guye* was a citizen of Geneva, where he studied chemistry, and where he worked for his Ph.D. under the direction of *Carl Graebe* at the University of Geneva. In 1892, he was elected to the 'Chaire extraordinaire de chimie théorique et technique', a curious combination of disciplines from our present point of view.

Up to the creation of *HCA*, Swiss chemists had to rely almost exclusively on foreign periodicals, mainly German and French, for the publication of their scientific results. Only the physical chemists had their own Swiss journal, the *Journal de Chimie Physique* founded in 1903 by *Ph.-A. Guye*. In addition, the *Schweizerische Apothekerzeitung* and the *Mitteilungen aus dem Gebiet der Lebensmitteluntersuchung und Hygiene* accepted contributions from the specialists. There also existed the *Schweizerische Chemikerzeitung*,



a private affair mainly addressed to the industrial chemists, and not open for original research papers. Indeed, the editors of this journal were on less than obliging terms with the chemists working in academia, which – as we shall see later – drew some sharp comments, in particular from *Alfred Werner* (1866–1919) [3], professor at the University of Zurich, first Swiss recipient of the Nobel prize in chemistry in 1913, and who was – apart from *Fichter* and *Guye* – the most active supporter of the creation of a Swiss journal of chemistry.

After the beginning of the first world war in 1914, Swiss chemists felt the urge to become independent of periodicals controlled by foreign chemical societies, especially in view of the uncertain situation that was going to develop after the war. Another incentive for the creation of an independent, official journal was that the *International Association of Chemical Societies*, a precursor of IUPAC, founded in 1911, had refused to accept the Swiss Chemical Society as one of its members, on the grounds that it did not have its own journal! It was felt that a society which could not afford a journal could not claim the same rights as other, older societies which had one. Therefore, it seemed timely to collect the scientific output of their academic and industrial laboratories in a national journal, thereby demonstrating both the scope and the importance of chemical research carried out in Switzerland. Finally, in contrast to the present times, scientists were much less reluctant to take pride in their nationalistic feelings, an attitude which turned out to be an important motivation for the creation of a Swiss periodical.

A first step in this direction had already been taken before, when the Swiss Chemical Society proposed that the Schweizerische Naturforschende Gesellschaft (SNG) - of which it was a section – should publish a journal, the Comptes rendus scientifiques suisses, which would accept original research papers. This was rejected by the board of the SNG on 2 July 1916. At the beginning of 1917, Fichter proposed to Prof. M. Cérésole [4] of the ETH, then president of the Swiss Chemical Society, that, in future, all the work stemming from Swiss chemists and from chemists working in Switzerland should be published in a Swiss periodical. In his answer to Fichter of January 25th, 1917, Cérésole asked Fichter to present his views at the assembly of the Swiss Chemical Society to be held on January 28th. A 'Note sur la création d'un bulletin suisse de chimie' was distributed to the members of the Swiss Chemical Society, who first aired the question, whether it was opportune to create such a journal. A majority supported the project, and at the meeting held in Burgdorf on 3 March 1917, a 'Comission consultative' was created by Ph.-A. Guye, who had taken over the presidency of the Society from *Cérésole*, who soon after left for the USA, to accept a position in a chemical company. This 'Comission consultative' was headed by Fichter, and it comprised all the leading professors of chemistry, *i.e. Bernoulli*, Billeter, Briner, Cérésole, Ephraim, Guye, Kohlschütter, Landolt, Pictet, Reverdin, Rupe, Staudinger, Waser, Weissenbach, and Werner. It was the duty of the 'Comission consultative' to evaluate the conditions under which such a journal could be created.

On March 20th, 1917 the 'Comission consultative' met for the first time in Berne, and its first objective was to determine the size of the prospective journal. To this end, it drew a list of the number of pages published in 1913 by chemists working in Switzerland, *i.e.* during the year before the outbreak of the war. According to this list, 1531 pages had been published by 55 chemists working in Switzerland, with Profs. *Kohlschütter* of Berne (117 pages) and *Pfeiffer* of Zurich (101 pages) as most prolific writers. It is amusing to note that such luminaries as *Eugen Bamberger* (31 pages) and *Hermann Staudinger* (35 pages), both at the ETH in Zurich, as well as *Alfred Werner* (14 pages) figured near the bottom of the list. Based on this survey, the comission estimated that a volume of the new journal should contain *ca*. 1000 pages, and that the total cost for an edition of 1000 copies would be *ca*. SFr. 10 500.–, an amount which exceeded the estimated income from subscriptions by SFr. 1300.–, and was, therefore, judged to be quite exorbitant and beyond the means of the Society. As it turned out later, the true cost for producing a journal of this size was around SFr. 12 000.– in 1918. (Nowadays, the production cost of *HCA* is *ca*. SFr. 450 000.–,

albeit for an edition of 2600 copies with over 2000 pages each.) Fortunately, there has always existed – and still exists – a very friendly and fruitfull collaboration between the chemical institutes of Swiss universities (and thus the Swiss Chemical Society) and the Swiss chemical industries, with the result that the latter agreed to create a fund, the revenue of which was going to be used to cover part of the expenses connected with the production of the journal. By the end of 1917, a sum of SFr. 22 000.– was available to the Chemical Society, which made it possible to fix the dues including (!) the subscription to the new journal at SFr. 18.– for members, and the subscription for non-members at SFr. 25.–.

From the beginning, the 'Comission consultative' worried about a possible overlap of the new journal with the Schweizerische Chemikerzeitung, but these worries were dispersed by its editor Dr. H. Schwarz, who wrote to Fichter on July 2nd that, in his opinion, the aims of the two journals were different enough to prevent any real competition. However, at a later date the new editor of the Schweizerische Chemikerzeitung, Dr. A. Stettbacher, had second thoughts. On December 12th, 1917, he wrote letters to the leading chemists at the Swiss universities, telling them that he would now be prepared to accept original scientific publications, 'um damit eine Pflicht zu erfüllen, die bei der Gründung der Zeitschrift leider versäumt worden ist'. However, the previous contacts between the two parties were obviously of such a nature that the offer was categorically refused, in particular by Alfred Werner.

Before Fasciculus 1, of Volumen I of HCA was issued in spring 1918, a number of important problems had to be solved. An obvious one was the choice of a name, something that was going to occupy the 'Comission consultative' for quite some time. Switzerland being a country with three official languages, German, French, and Italian -Romantsch is only a national, not an official language - it was quickly agreed that the name should be in Latin, to avoid any discrimination. At a meeting in Bern, on October 20th, 1917, the members of the 'Comission consultative' proposed in rapid succession such names as 'Helveticum Chemiae Repertorium', 'Helveticae Chemicae Annales', 'Helveticae Chemicae Societatis Consilio Redactae', and quite a few more. But, the members realized soon that chemistry rather than Latin was their forte, and it is was quickly agreed to consult a Latin specialist, in this instance Prof. J. Stroux from the University of Basel. As is not uncommon when dealing with colleagues from the humanities, this decision was going to generate a substantial exchange of letters, discussing finer and finer points of subtle linguistics. The only restriction the 'Comission consultative' imposed was that the nationally all-important reference to Switzerland, e.g. 'Helvetica', should occupy first place, to allow it to be printed all by itself as a first line of the title on the cover. Stroux's first contribution was to point out, that according to the 'Glossarium mediae et infimae latinitatis', the term 'chemia', being of Greek origin, had to be replaced by 'chimia', even if the same error occurred regularly on the doctor diplomas of the University of Basel. After much consideration, Stroux proposed first 'Helveticae Societatis Chimicae Annales', and then, later on 'Helvetica Acta Chimica' because of 'its nice rythm', but the 'Comission consultative' was at odds, if 'Helvetica Chimica Acta' would not do as well. As a last authority, the eminent professor Georges Oltramare of the University of Geneva was consulted. He argued, in his letter to Fichter of February 8th, 1918, that by choosing the alternative 'Helvetica Chimica Acta' as a title, '... nous ne choquerons quand même

pas les latinistes', although he agreed that Stroux's proposition was '... un peu plus agréable'. Thus did HCA get its traditional name, and a cover with 'Helvetica' nicely out in front.

Helvetica Chimica Acta

EDITA A SOCIETATE CHIMICA HELVETICA

VOLUMEN I

MCMXVIII BASILEAE ET GENEVAE . IN AEDIBUS GEORG & CO.

Another problem was the choice of an editorial board, *i.e.* of the 'Comité de Rédaction' of *HCA*, in particular of its 'President', who had to be a combination of chairman, editor-in-chief, referee, registrar, corrector, and supervisor of the production. Or, as *Fichter* scribbled on the margin of his protocoll: '*Muss ein Halbgott sein*!' Of course, there was never any doubt that this demigod should be *F. Fichter* himself, but what about other members? Should they all be Swiss, or should one include one or the other of the foreign colleagues occupying chairs at Swiss universities? As it turned out, these were all of German origin, as for instance *Hermann Staudinger* and *Volkmar Kohlschütter* [5], with the result, as *Guye* wrote to *Fichter* on October 10th, 1917, that '... nous ne pourrons représenter qu'un des groupes belligérants et dans ce cas le journal est condamné dans l'autre group'. Remember that we are in the midst of the first world war, and that strict observance of 'neutrality' was the order of the day in Switzerland. Accordingly, as *Guye* had argued, one should not include representatives of only one of the parties at war. Notwithstanding this caveat, the 'Comission consultative' was prepared to overrule this principle in the case of *Hermann Staudinger*, much beloved by all members of the comission, and whom Fichter characterized in a letter to Guye as 'le plus innocent de tous les étrangers, pacifiste, internationaliste, socialiste oui, mais jamais nationaliste'. But, immediately a new problem arose. Staudinger's wife had held pacifistic speeches in public! Would this not irritate the colleagues in Germany and – even worse! – prevent some of them from subscribing to HCA? A typical Swiss dilemma, poised on edge between political overcautioness and financial considerations. The problem was solved by Kohlschütter, himself a German, who persuaded the 'Comission consultative' that it would be best for all concerned, if the editorial board were purely Swiss, and he took it onto himself to explain the situation to Staudinger. Once this decision was taken, the 'Comission' quickly nominated E. Bosshard [6] (ETH, Zurich), Ph.-A. Guve (University of Geneva), H. Rupe (University of Basel) [7], and A. Werner (University of Zurich) as members of the 'Comité de Rédaction'. But, there was still Amé Pictet [8] of the University of Geneva, at the time one of the most influential grand old men of chemistry in Switzerland. As it happened, he had been one of the few opposed to the creation of a Swiss journal of chemistry, but once the majority of the members of the Society had voted for it, he immediately wanted to join the editorial board! In an exchange of letters, Guye and Fichter aired their misgivings, but Pictet was to important a figure in Swiss chemistry to be bypassed. Or as Guye wrote to Fichter: 'Nous devons éviter de faire des malcontents... et je vous laisse le soin de concilier (son) désir [i.e. to join the 'Comité de Rédaction'] avec sa proposition d'ajournement et de renvoi indéfini'. Pictet was elected as a sixth member of the 'Comité de Redaction'. In addition, he became its vice president (Fig. 1). To be fair, one has to record that Amé Pictet, once he had become a member of the Comité, was extremely active, and that he contributed considerably to make HCA a success.

Fichter quickly realized that the duties originally associated with the position of 'President' of the 'Comité de Rédaction' were to much even for a '*Halbgott*', and he looked for two secretaries, one for the French and one for the German manuscripts. He found them in the persons of Dr. *Otto C. Billeter (Chemische Fabrik, vorm. Sandoz)* and Dr. *Max Jetzer (J. R. Geigy)*, respectively, who started their work in November 1917.

The next problem to be solved was the choice of a printer and of a publisher. Nearly a dozen Swiss companies were asked to submit offers, all of which were greatly interested. After much correspondence between *Fichter* and the printers, it was decided to entrust *Emil Birkhäuser*, *Buchdruckerei und Verlag* in Basel, with the production of *HCA*. The main reasons were that this company resided in Basel, *i.e.* in the same town where the editorial office was going to be, and that a top-secret investigation of the company resulted in a '*Geheimbericht*' to *Fichter* and *Guye*, highly elogious in all respects ('... *Wie man vernimmt, soll der Befragte weder für die Kriegführenden des Vierbundes noch derjenigen der Entente sympatisieren, sondern neutral gesinnt sein, schon aus Rücksicht auf sein Geschäft ...').* This turned out to be a happy choice, and today, after 75 years, *HCA* is still typeset, printed, bound, and distributed by *Birkhäuser*+*GBC Graphische Unternehmen*, Reinach, to the complete satisfaction of all concerned. The highly efficient crew of *Birkhäuser*+*GBC*, under its director *Helmut Billich*, contributes considerably towards making *HCA* one of the fastest-publishing chemistry journals on the market. In the beginning, the publishing was delegated to *Georg & Co.*, Basel/Genève, the Swiss

REDAKTIONS-KOMITEE - COMITÉ DE RÉDACTION - COMITATO DI REDAZIONE

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A. PICTET Vice-président Laboratoire de Chimie organique de l'Université Genève

FR. FICHTER Präsident Chemische Anstalt der Universität Basel

H. RUPE Chemische Anstalt der Universität

Resel

A. WERNER Chemisches Institut der Universität Zürich

PH.-A. GUYE Labor. de Chimie techn. et de Chimie théorique de l'Université

Genève

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GEORG & Co.

10 Freiestrasse, Basel - Genève, Corraterie 10

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Manuskripte können an irgend ein Mitglied des Redaktionskomitees gesandt werden. Jede Arbeit muss den Namen des Autors und die Bezeichnung der wissenschaftlichen Anstalt, wo die Arbeit ausgeführt wurde, oder wenigstens den Wohnort des Autors tragen. Der Druck der Arbeiten (grösster zulässiger Umfang 32 Seiten) geschieht im allgemeinen in der Reihenfolge des Einlaufs; kurze Mitteilungen, die den Umfang von 6 Seiten nicht überschreiten, werden in das gerade unter der Presse befindliche Heft aufgenommen, wenn sie vier Wochen vor dem Erscheinungstag (siehe 4. Umschlagseite) eingeliefert worden sind. Die Autoren erhalten 50 Senaratabzüge unergeltlich sind. Die Autoren erhalten 50 Separatabzüge unentgeltlich.

Der Jahresbeitrag für ordentliche Mitglieder in der Schweiz beträgt Fr. 18.-, für ordentliche Mitglieder im Ausland Fr. 22.-. Alle Zahlungen sind an den Schatzmeister der Gesellschaft, Herrn Dr. G. Engi, Gesellschaft für chemische Industrie, in Basel, zu richten.

Für Nichtmitglieder beträgt der Abonnementspreis jährlich Fr. 25.-.. Bestellungen werden vom Verleger entgegengenommen.

Les HELVETICA CHIMICA ACTA sont la propriété de la Société suisse de Chimie, et paraissent chaque année en 6-8 fascicules, que les membres ordinaires de la Société recoivent sans autres frais.

Les auteurs peuvent envoyer leurs manuscrits à l'un quelconque des membres du Comité de rédaction. Les mémoires adressés doivent mentionner, outre le nom et le domicile de l'auteur, le laboratoire scientifique dans lequel les travaux ont été exécutés, et ne doivent pas dépasser 32 pages d'impression. En général l'ordre de réception détermine le rang dans lequel les mémoires sont imprimés, sauf pour de petites communications de 6 pages au maximum, qui peuvent être admises dans la livraison sous presse, si l'auteur en fait l'envoi 4 semaines au moins avant la date fixée pour la publication (date indiquée à la 4º page de la couverture). Les auteurs recevront gratuitement 50 tirages à part.

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l'industria chimica, Basilea.

Per i non-membri l'abbonamento annuo è di Fr. 25 .-- . Le ordinazioni saranno eseguite dalla Casa Depositaria.

Fig. 1

Chemical Society remaining, however, the sole owner of the journal. Only after 1929 did the Society sign as publisher of *HCA*.

Finally, regulations had to be prepared, which set down the rules for the 'Comité de Rédaction' and for the prospective authors. Although everyone had agreed that *HCA* was going to be a Swiss journal, it was still an open question, whether foreign chemists should be allowed to publish in it, as suggested by *Staudinger*. Finally, *Alfred Werner*'s plea for a 'journal national pour nous Suisses' won out, and it was agreed that manuscripts could be submitted only by Swiss authors, or by authors working in Switzerland. Although this decision, not to make *HCA* internationally available, may now seem chauvinistic, it was only dictated by the realisation that a well-functioning periodical in a neutral country would have attracted a flood of manuscripts, which the editors would have been unable to handle, let alone to print. A slight amendment was introduced in February 1928, allowing foreign authors to submit manuscripts to *HCA*, provided their contents had been presented orally at one of the meetings of the Swiss Chemical Society. Much later, in 1985, *HCA* became available to all members of the Society, independent of their nationality. Finally, *Staudinger*'s wish to make *HCA* a truly international journal open without restriction to all comers was only fulfilled in 1989.

After this important decision concerning who was going to be allowed to publish in HCA, it was agreed that manuscripts could be submitted in German, French, and Italian. An earlier proposal that Swiss authors working abroad could also use English was abandoned, and only after 1970, English was introduced as a fourth language, or rather as a third, because, by that time, manuscripts in Italian had died out. In the beginning, the length of a contribution was limited to 32 printed pages. Later, when the number of submitted manuscripts had increased, one of the major worries of the editors was – and still is – the sometimes epic style of the authors, which led *Fichter* to formulate the following advice to authors in verse form [9]:

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| | 2. VIII. 1943. | • |
| INHALT | SOMMAIRE | SOMMARIO |

In this connection, the shortest full publication to be found in 75 volumes of *HCA*, *i.e.* one including an experimental part, is reproduced in *Fig. 2* in its entirety [10].

The original regulations also included a short list of recommended abbreviations. In addition, the 'Comité de Rédaction' tried to convince the authors from the beginning, to use the chemical nomenclature recommended by the 'Commission de Réforme de la

Die Bruttoformel des Crocins von P. Karrer und H. Salomon. (17. V. 33.)

Für das Crocin haben wir früher die Analysenwerte C 53,20; 53,13; H 6,65; 6,50 gefunden¹). Diese entsprechen dem Monohydrat des Farbstoffs. (Berechnet für $C_{44}H_{64}O_{24} + 1 H_2OC = 53,22$ H = 6,67%.)

Beim anhaltenden Trocknen des Crocins bei 100° wird dieses wasserfrei und zeigt dann folgende Zusammensetzung:

> 5,566 mg Subst. gaben 11,050 mg CO, und 3,370 mg HyO C44H64O24

Ber. C 54,07 H 6,61%

Gef. , 54,14 , 6,78%

Diese Formel entspricht derjenigen des Di-gentiobiose-esters des Crocetins C20H24O42).

Zürich, Chemisches Institut der Universität.

1) Helv. 11, 520 (1928). 2) Helv. 15, 1399 (1932); 16, 297 (1933)

Fig.2

Nomenclature de Chimie Organique'. This commission was presided by Victor Grignard, who published in HCA in 1930 his report on the latest developments [11]. Many colleagues, suffering from the present editor's insistance on correct IUPAC nomenclature, will be pleased to learn that 50 years ago Hans Rupe, professor of organic chemistry at the University of Basel wrote in a footnote: 'Wenn man die offizielle Nomenklatur dieser Tetrahydro-Pyranderivate benützt, so kommt man zu ungeheuerlichen Wortgebilden, die schwer verständlich und ziemlich nutzlos sind' [12].

Unavoidably, Fichter as 'Président du Comité de Rédaction' also introduced some unwritten laws. Thus, the authors were not allowed to write 'Molekül' in German manuscripts, but had to use 'Molekel' instead, because he was of the opinion that 'Molekül ist ridikül', and because one drives 'in einem Vehikel und nicht in einem Vehikül'. In a similar vein, his successor, *Emile Cherbuliez* imposed the use of the ampersand '&' instead of 'und' in literature references, which made them look, as if they all stemmed from some company, e.g. from Müller & Schmidt. We are well aware that many of our present authors think that this was chickenfeed, compared to some of the idiosyncrasies of the present editorial board, as laid down in our 18 pages of 'Instructions to Authors', published in the first fascicule of each volume. A few years ago, the 'Comité de Rédaction' put a ban on dedications, the number of dedicated papers getting out of hand. This decision was later reversed by the Board of the Directors of the Swiss Chemical Society, when some of its members neared the age of sixty.

Finally, on September 11th, 1917, tractandum 3 on the agenda of the general assembly of the Swiss Chemical Society in Zürich, i.e. the 'Création d'un périodique suisse de chimie', *i.e.* of HCA, was unanimously accepted.

Thus, everything was going smoothly, and the 'Comité de Rédaction' got ready to start the journal. However, one was still in the midst of the war, and one had become accustomed to all sort of restrictions. In a letter from Prof. Bistrzycki, we read 'Ich habe am 16. Oktober zu lesen im Überzieher begonnen bei 9–10 °C. Die Zuhörer behielten auch ihre Überzieher an. Im Eckzimmer meiner Wohnung hab ich 7°R. Ich friere privatim noch in Réaumur, offiziell nach Celsius'. (He was lucky that 1917/1918 was obviously a mild winter. Secretary Jetzer reported in January from Adelboden that '... von drei Phasen des Wassers fehlt gerade diejenige die zum Skifahren unentbehrlich ist'.) However, it was quite a surprise, when, out of the blue, the Swiss authorities decreed on October 27th, 1917, that no one was allowed to issue a new journal, because of the extreme shortage of paper. Immediately, a petition was filed with the 'Bundesrat', explaining that HCA was of national importance, and - on Alfred Werner's advice - direct contacts were established with members of the 'Bundesrat', e.g. with minister Schulthess and members of the federal commission responsible for special permissions, e.g. with Dr. A. Oeri of the 'Basler Nachrichten'. Luckily, it was possible, with the help of these influential friends from politics and from industry, to convince the authorities that HCA was indeed of national importance, and on February 23rd, 1918, they gave special permission to proceed, albeit under the condition of the typically Swiss compromise that the edition must be limited to 500 copies, and that the page size be reduced. But, Fichter and Guve showed that this would be counterproductive, and that it was more reasonable to limit each volume to 500 pages. On March 9th, 1918, the 'Département Suisse de l'Economie Publique' agreed to this solution in a letter carrying – according to Fichter – a 'signature illisible'. As it happened, the first volume of HCA exceeded the alotted 500 pages by 18.

After all the basic work had been done, and after a sound financial basis had been provided by the Swiss Chemical Industries, letters were written to prominent chemists in Switzerland, asking them to send contributions and, if possible, to pledge themselves to submit all forthcoming manuscripts to HCA rather than to foreign journals. Most of them agreed, and in fact were rather pleased to be asked for such a commitment. As one correspondent wrote to *Fichter*, he felt on equal terms with '*Balzac, Sienkiewicz und anderen, die sich grossen Zeitschriften auf Jahre hinaus verpflichten mussten*'. Other, lesser known chemists who had not been asked, as for instance Privatdozent *Leopold Ruzicka* of the ETH, Zurich, inquired if, and under what conditions, he would also be allowed to publish in HCA (*Fig.3*).

Thus, with the odd exception, the echo was overwhelming. Manuscripts began to reach *Fichter*'s editorial office before the end of 1917, and on February 19th, 1918, M. *Jetzer* could draw the list of the very first manuscripts submitted for publication in *HCA* (*Fig. 4*).

Among these was a manuscript entitled 'Über das Vorkommen von Selenwasserstoff im Regen und Schnee', whose author had the double honour of being the first HCA author to have his manuscript sent to a reviewer – none other than Alfred Werner –, and the more dubious one of seeing it rejected. (Potential HCA reviewers: Please note that the manuscript was sent to Werner on November 25th, and that the report reached Fichter four days later, on the 29th of the same month!!!) However, these were much gentler times, and Werner reported at great length that he had summoned the author to his office, explained in detail what was wrong, which experiments should be carried out, which data were missing, and how the manuscript should be revised. This would hardly happen nowadays, where the role of the reviewers is restricted, by definition, to helping the editors, and not to enlighten the authors. Complying with these requests, the author

Turich, 10. Lehr. 1918. Jeh geelste Herr Professor! ich oor unumen habe , Dass die stion de neuer clau. Le schrift in three Känden liegt, mochte ich mir die Cher fier plumber of man schon abhau trugen tin dicseller einschicken ~ of kertinite formale Jenus farming Vorschi en pir die la der handlunger festrese nin ullian ischleiner riglick Hoch albury r. deop. Kuzicke, inich, Winders hurensto. 40.

Fig.3

resubmitted a revised manuscript, which appeared on page 52 of the first issue of *HCA*. But, he was definitely unlucky. His paper did still not please a certain Dr. *Paul Karrer*, who published on p. 499 of the same volume a short rebuttal of the work, which would have been one of the earliest chemical investigations dealing with air pollution, had it not suffered from being irreproducible. One of the unexplained mysteries attached to this story is that the author, *Werner*, and *Karrer*, all worked at the same 'Chemisches Institut der Universität Zürich'.

Basel, 19. Februar 1918. Jehn geehrter Hen Professor, Indens ich Thnew bestens dankend den Empsfang Three fendung vom 18 a.c. bestätige, teile sich Mennen die gewünschten Fitel der finf Manuskripte mit: 1) Constitutionsverhältnisse und Fromericerscheinungen feider Jelendionzel -oxalsame the gammann: 21. XI. 17. 2.) Über das Vorkommen von Jeleuwassers toff in Regen und im Schnee th. gammann: 13. X. 17. 3.) Tiber eine nene Tomericart bei Kobalt rerbindungen und Verbindungen mit asymmetrischen Kobelt und Kohlenstoff. A. Homen : 8. 511.17 4) liker Nitroro-penterminkobaltisabe A. Worner n. P. Kerrer 15. 5. 17. 5.1 For Konstitutionder inner Install Komplexialse A. Womer n. Syph Matissen 15. I. 18. Mit hiff. Smpfehling Min erg. M. Fetzer

Fig.4

Others had different difficulties with the new journal. W. D. Treadwell, who became a member of the 'Comité de Rédaction' in 1922, submitted a manuscript, wishing that it should be published in 'Erfahrungen im wissenschaftlichen Unterricht', a journal edited by Prof. E. Ruest. After Fichter had patiently explained the mix-up, Treadwell resubmitted the manuscript to HCA in a slightly changed form, only to retract it shortly after, because the last section and an important table were missing. At the same time, Prof.

Gertrud Woker from the University of Berne requested that the thesis of one of her students be reprinted in *HCA* in its entirety, which would have used up a substantial part of *Vol. 1. Fichter*, in a friendly letter, declined. It is a consolation to see that the problems facing an editorial board were the same 75 years ago.

On December 8th, 1917, well before the first fascicule of *HCA* appeared, Dr. F. *Reverdin* [13] announced to *Fichter* the first two subscriptions stemming from the USA, namely those of Prof. M. A. Cérésole in Carrolville, Wisconsin, and of the *Newport Chemical Works* in Milwaukee, Wisconsin. In addition, he reported that the University of Chicago and the Chemist's Club of New York also wished to subscribe.

In 1948, four years before his death, *Fichter* handed over the presidency of the 'Comité de Rédaction' to *Emile Cherbuliez* (1891–1985) [14], professor at the University of Geneva. *Cherbuliez* was born in Mulhouse, studied chemistry at the ETH in Zurich, where he obtained in 1917 his first Ph.D., Dr. rer. nat., under the direction of Prof. *Auguste Piccard.* He then moved to the University of Munich, became assistant to *Richard Willstätter*, and worked for a second Ph.D. under the combined leadership of *Willstätter* and *Rudolf Pummerer*. In 1920, he became 'privat-dozent' at the University of Geneva, and then, in 1925, professor of pharmaceutical chemistry.



Cherbuliez was in many ways a most remarkable character. Although handicapped by a severe leg injury, incured when an airplane he had piloted in his capacity of captain of the Swiss air force crashed in 1928, he travelled all over Israel at the age of 94, having visited China twice a few years earlier. When asked, if he did not find the long flights from Geneva to Beijing tiring, he answered: 'Pas du tout! Vous savez, on peut s'assoir dans l'avion'. He was completely fluent in French and German, and he had the uncanny ability to detect errors of fact or logic in any sort of manuscript, *i.e.* manuscripts dealing with

organic, inorganic, physical, theoretical, or any other field of chemistry. He hated long sentences, and he was the personification of *Boileau*'s dictum: '*Ce que l'on conçoit bien s'énonce clairement et les mots pour le dire arrivent aisément*'. In honour of his 75th birthday, HCA published a 'Festschrift' in 1966, and the Swiss Chemical Society awarded him the *Paracelsus Medal* for his outstanding services as 'President' of the 'Comité de Rédaction' and as member of the Board of the Directors of the Society.

Cherbuliez was assisted, among others, by Dr. *A. Georg*, who had obtained his degree from the University of Geneva, after having worked with *Amé Pictet*. It was his main duty to check the chemical nomenclature in accordance to the international rules and to assist *Cherbuliez* in reducing lengthy manuscripts to an acceptable size. His help was invaluable, and he will be gratefully remembered, even by one of the present authors who found all his 'Basisorbitale' changed into 'basische Orbitale'.

In 1971, Cherbuliez retired from the 'Comité de Rédaction' at the age of 80. His successor was *Edgardo Giovannini*, professor of organic chemistry at the University of Fribourg, who remained 'Président' until 1983. Under his guidance, some important changes were introduced, which contributed largely to make HCA what it is today. One of the most crucial ones was the creation of a professional editorial office, consisting of an editor, an assistant editor, and an editorial assistant. The office, originally located in Fribourg, moved in 1984 to Basel where it is now housed in one of the quaint old quarters of the city. Another important innovation concerned the admission of English as a fourth language, with the result that nowadays more than 80% of the contributions are published in English, their percentage still increasing. This, together with the decision to accept manuscripts from outside Switzerland, lifted HCA to the rank of an international journal.

A perhaps minor but necessary change was to abandon the curious institution of the 'Pli cacheté'. For a long time, authors were permitted to submit manuscripts in a sealed envelope, *i.e.* a 'Pli cacheté', which was to be opened and published at a later date, chosen according to the wish of the author. Such a publication then carried the date of arrival of the envelope at the editorial office as date of submission. The reasons behind this strange procedure were questions of priority and of patent rights. For obvious reasons, the editors became wary, when some authors began to submit two 'Plis cachetés' at the same time, asking later that only one of the two should be published and the other returned unopened!

Another feature of *HCA* that was abolished some years ago was the announcement, in each issue of *HCA*, of submission deadlines for manuscripts to be published in forthcoming issues of *HCA*. For example, all manuscripts reaching the office before the hour of 18.30 (!) of a given date, were garanteed to appear in print in the next issue. Not unexpectedly, this led to the kind of situation told vividly by *Vladimir Prelog*: 'Leopold Ruzicka war während seiner intensivsten Publikationsaktivität der vierziger Jahre sehr daran interessiert, dass seine Arbeiten möglichst rasch publiziert wurden. Er hatte herausgefunden, dass seine Manuskripte gerade noch vor dem abendlichen Redaktionsschluss in Basel eintrafen, wenn man sie am frühen Nachmittag als Eilbrief auf einen bestimmten Zug brachte. Man konnte sich damals noch hundertprozentig auf die PTT verlassen. Da ich eine gewisse leichtathletische Vergangenheit und Renommee besass, wurde ich zum Mitmachen aufgeboten. Das spielte sich so ab: Das rasch geschriebene und getippte Manuskript wurde von Ruzicka so lange wie möglich in seiner charakteristischen Schrift korrigiert und verbessert. Dann stieg er mit mir in sein Auto und fuhr mit höchster Geschwindigkeit zum Hauptbahnhof. Ich übernahm das Manuskript und lief mit ihm dem Zug entlang bis zum Postwagen hinter der Lokomotive und übergab dort den Brief dem Postbeamten, der mit gekreuzten Armen auf die Abfahrt des Zuges wartete. Als besonders sportlich galt es, wenn es mir gelang, den Brief zu übergeben, während sich der Zug schon langsam in Bewegung setzte, was meistens der Fall war. Das habe ich als Höhepunkt meiner sportlichen Karriere betrachtet, die ich bald darauf aufgab'. As other authors used the same strategy, the result was an enormous number of manuscripts, piling up on the editorial desk a few hours before the deadline.

Up to 1983, the 'Index Auctorum' and the 'Index Rerum' of a given volume, were printed as a separate 'Fasciculus nonus et postremus' to be delivered with the second issue of the following year. To allow inclusion of the indexes at the end of the last issue, it was necessary to computerize their composition with the help of key-words provided by the authors. As some of them still think that 'organic chemistry' or 'synthesis' are usefull, the editorial office has to rely on the summaries and titles of their papers. Fortunately, not all of them are as kryptic as Hans Erlenmeyer's 'Bemerkungen über die Trachten gekletterter Krystalle' [15], notwithstanding its pleasing folkloristic and alpine connotation. Finally, in 1991 the cover of HCA was redesigned, and since 1990 part of HCA is produced using desk-editing procedures.

As for any other journal of chemistry, the style of presentation has changed considerably over the years, and it is perhaps amusing to give some examples. In the beginning, chemical formulae were typeset, which gave them an unmistakable 'gothic' look (Fig. 5).

Later, when stencils became available, and of course after the computers had learned how to draw nice formulae, in particular on the basis of X-ray data, authors were asked to submit camera-ready formulae that can be reproduced directly (*Fig. 6* and 7).

When *Thadäus Reichstein*, who had just celebrated his 90th birthday, submitted two manuscripts for publication in HCA, his hand-drawn chemical formulae were reproduced in facsimile as a special tribute [16] (*Fig.8*). The editorial office will certainly not forget the weeks preceeding the publication of these two papers, when the unbroken dynamism and enthusiasm of the 90-year-old author almost exhausted the stamina of those who could have easily been his grandchildren.

We conclude this survey by presenting some data which characterize the development of HCA over the past 75 years. As shown in Fig.9, the number of pages has steadily increased from the 518 of the first volume reaching a maximum of 3195 in 1978 under the presidency of Giovannini. You will be quick to notice that a significant drop occured, when the present editorial board took over in 1984. Before you draw hasty conclusions, we should tell you that the Board of the Directors of the Swiss Chemical Society decided the same year to limit the size of HCA to a maximum of 2500 pages for financial reasons. Accordingly, the editor strifes hard to reduce the size of the manuscripts as much as possible, e.g. by applying Dunitz's rule: 'Strike out the first sentence'. This is based on the experimental observation that removal of the first sentence or even the first paragraph of most manuscripts will not impair their scientific content. Like other journals, HCA felt the effect of the credit squeeze which forced many libraries to reduce the number of their subscriptions. However, the revenues from the sale of HCA had been mainly responsible for increasing the original capital provided by the Swiss chemical industries to such an extent that, with the help of its returns, HCA was still self-supporting. The above-mentioned restriction was a successfull measure to keep the status quo.







Fig.3. Stereoscopic view of molecule 2. The configuration shown is (1S,3R,4R,7R,8R,11S,14S,12E).

Fig.7



Fig.8

The decision, in 1970, to allow English as a fourth language for publications has had the result that the majority of publications is now written in this language (87.4% in 1991).

Over the years, *HCA* has become a journal mainly devoted to organic chemistry. This not only mirrors the major activities of Swiss universities and industry laboratories,



Fig.9

but is also due to the impact of its most prolific authors, such as *Stoll*, *Ruzicka*, *Karrer*, *Reichstein*, *Prelog*, and *Jeger*. As for the future, we can do no better than quote what *A*. *Wettstein* wrote on the occasion of *HCA*'s 50th anniversary: '*Die Auguren stellen der HCA* weiterhin eine günstige Prognose' [17].

The early history (1916 -1918) of Helvetica Chimica Acta is based on the original documents.

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