

ZDENEK HERMAN

**COLLEGUES AND FRIENDS
IN CHEMISTRY AND PHYSICS
1969-2018**

DRAWINGS, PAINTINGS, SCULPTURES

2018

As an Introduction

This is a collection of drawings, paintings, and sculptures of friends and colleagues in chemical physics, gathered over a period of almost fifty years . It resulted from little sketches made during conferences, seminars, and different meetings, sometimes extracted from my photographs. In a way, it is a portrait of the generations of people that formed our years in science: the generation older than us who introduced us to science, who taught us and whom we deeply respected, our generation of people born in the thirties, and the generation younger than us.

Obviously, the collection is very incomplete - only of my colleagues and friends I knew personally, and even then some faces resisted despite many tries my attempts to catch them well and thus they are missing.

Many of our colleagues and friends are no more with us, but perhaps this collection will keep the memory of not only their names, but also of their faces.

Z.H.

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INSTITUTE OF PHYSICAL
CHEMISTRY
UNIVERSITIES

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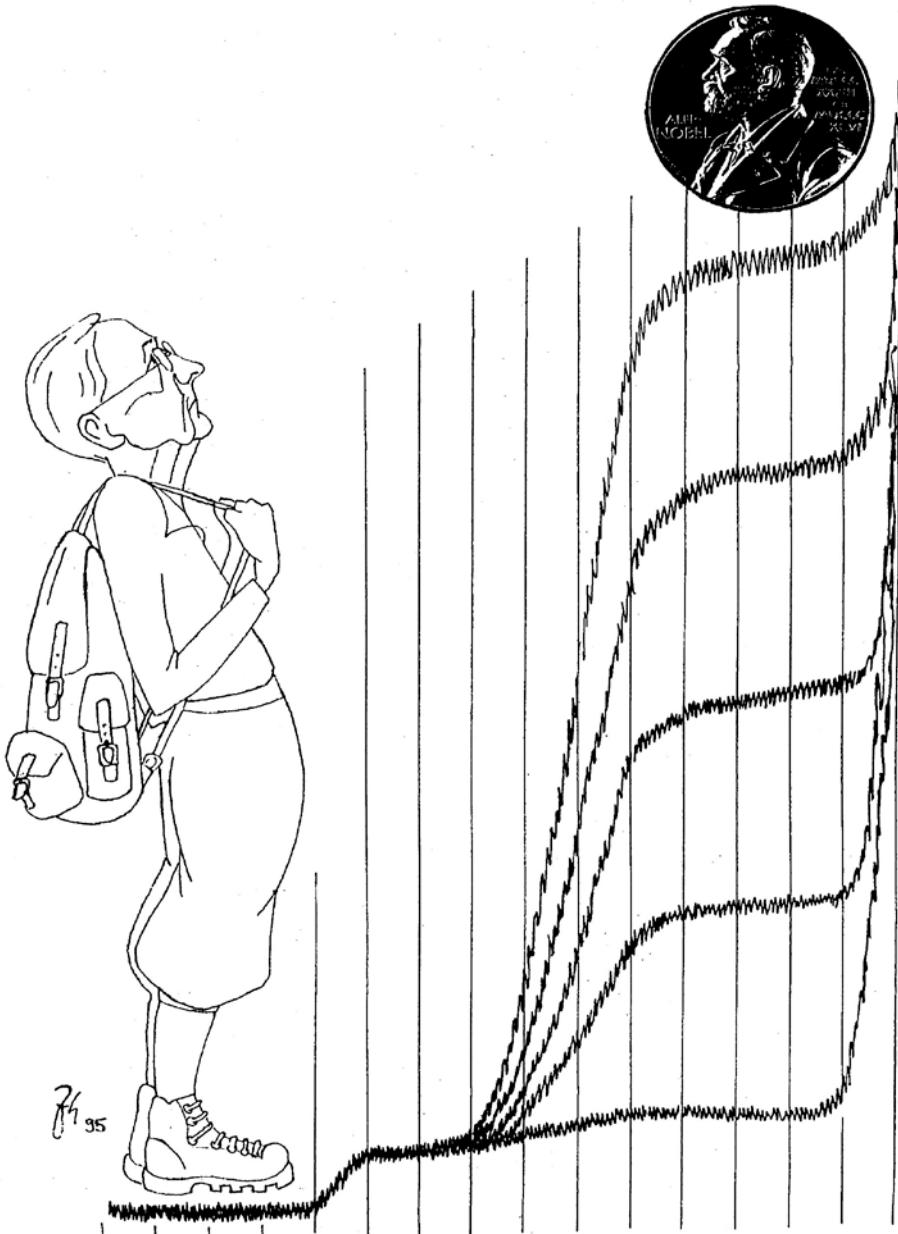
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Prof. Jaroslav Heyrovský (1890-1967)



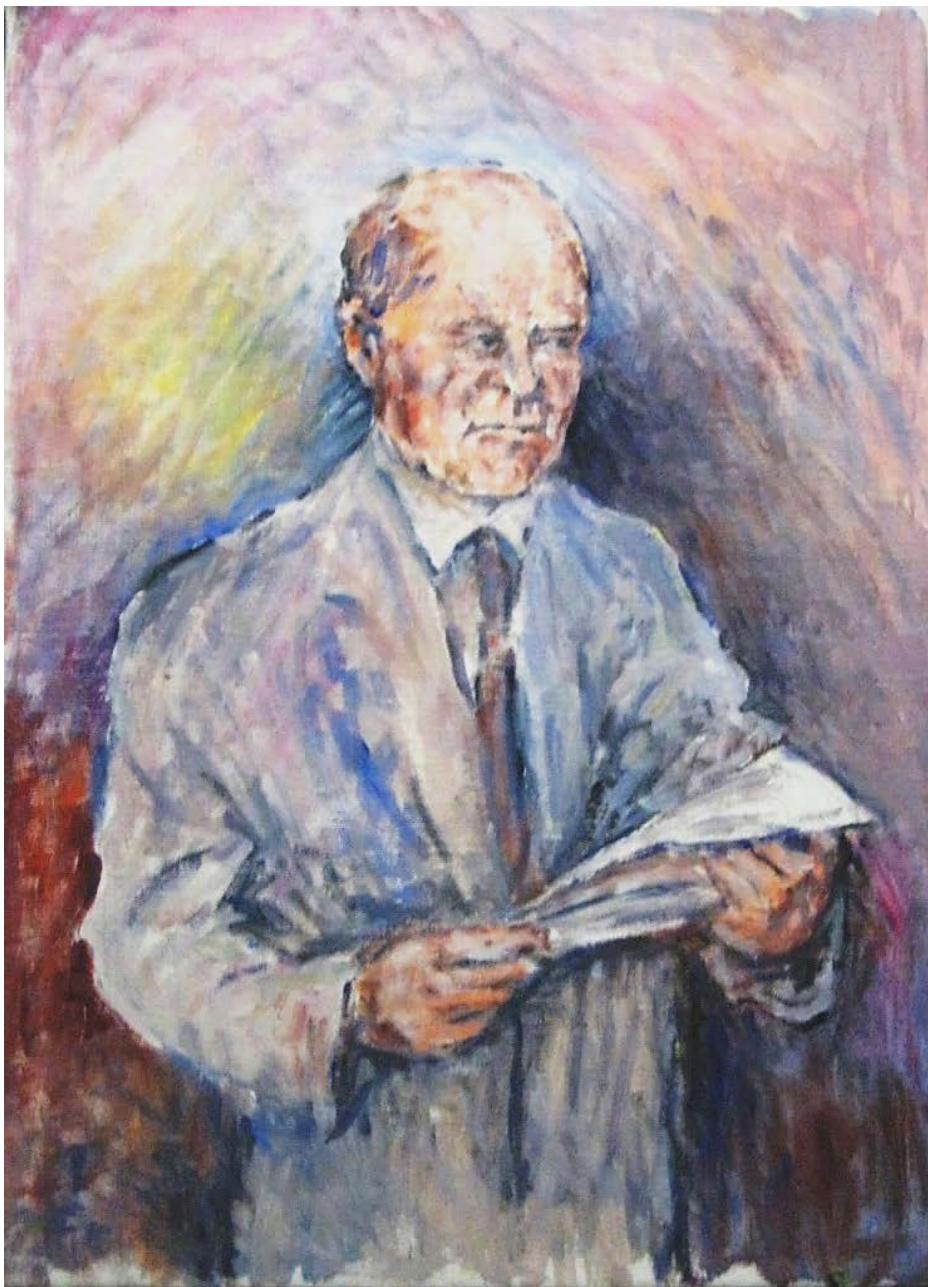
Professor Heyrovský



Prof. Rudolf Brdička (1906-1970)



Prof. Rudolf Brdička, 1993



Prof. Rudolf Brdička , 2014
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Prof. Rudolf Brdička



Vladimír Čermák, arbiter elegantiarum



Dr. Vadimír Čermák (1920-1980)



Dr. Vladimír Čermák, 1983



Dr. Vladimír Hanuš (1923-2009)



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Vladimír Hanuš, A.D. 1972



Prof. Jaroslav Koutecký (1922-2005)



Jaroslav Koutecký



Prof. Ing. Eduard Hála (1919-1989)



Prof. Eduard Hála, 1987



Dr. Čestmír Jech (1925-2002)



Čestmír Jech



Čestmír Jech - sportsman



Concentration of Professor Hála



Dr. Čestmír Jech, 1995



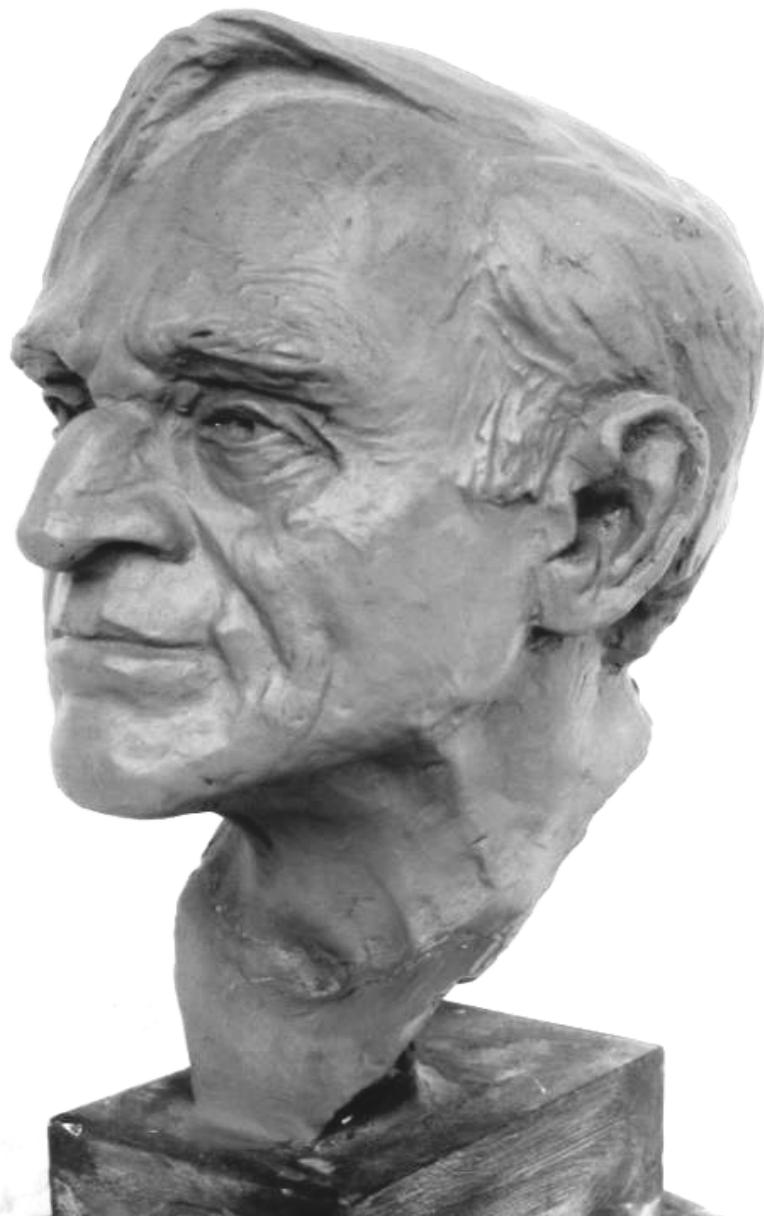
Emerich Erdöss



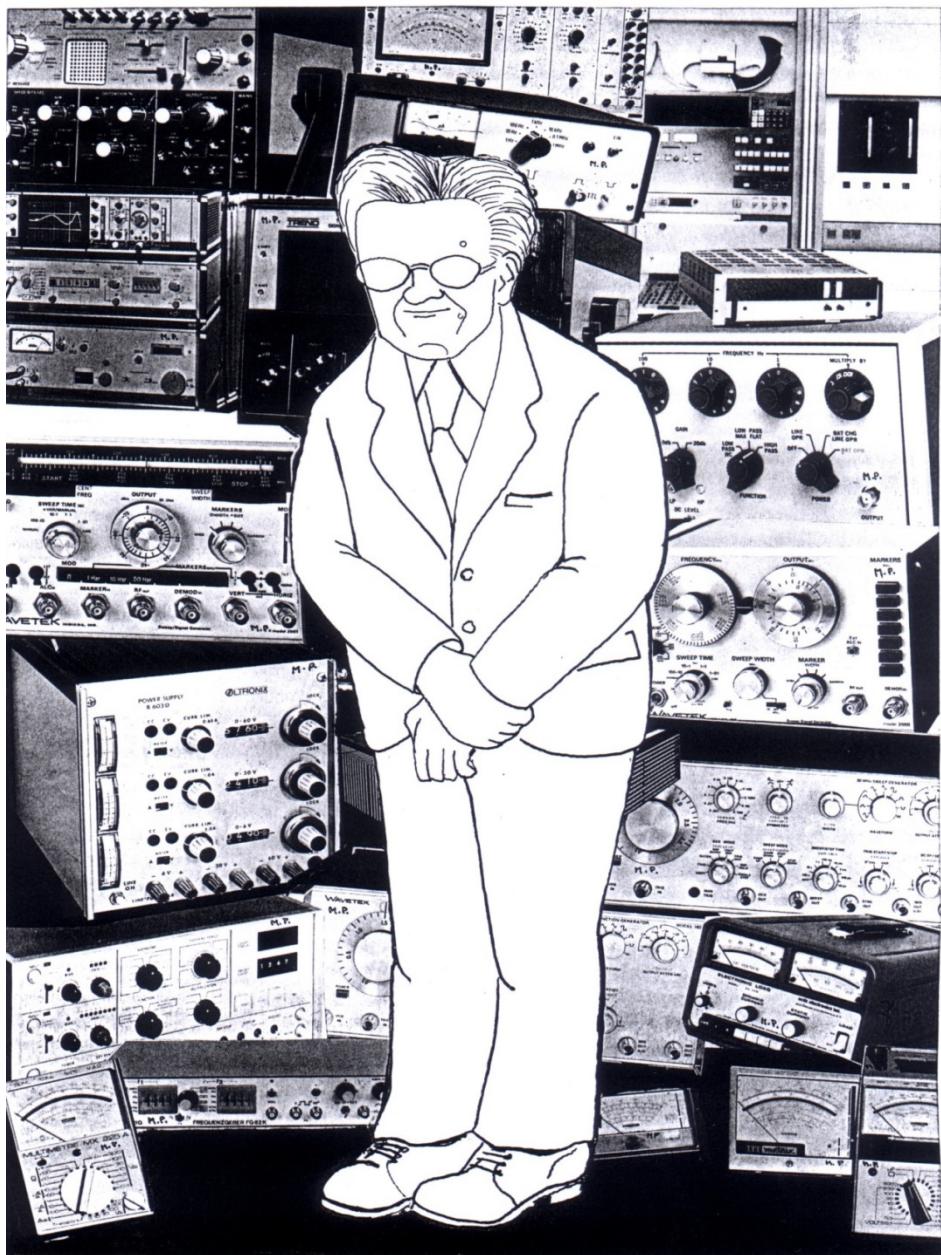
Rudolf Zahradník in discussion



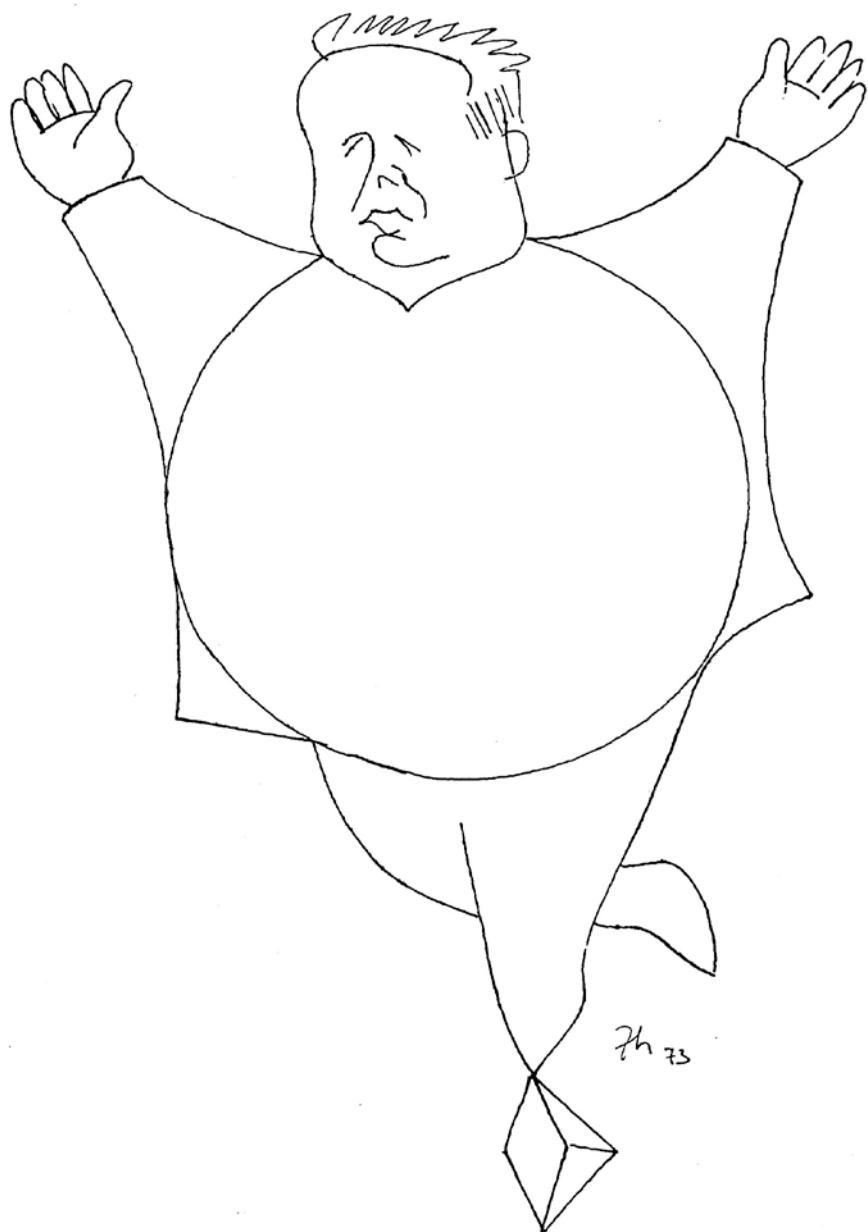
Rudolf Zahradník simply cannot understand.....



Prof. Rudolf Zahradník (a study), 1988



Sixty five years of Ing. Miroslav Pacák (1913-1988)



Boha Matyska and the director's pyramid in 1973



Ivo Kössler

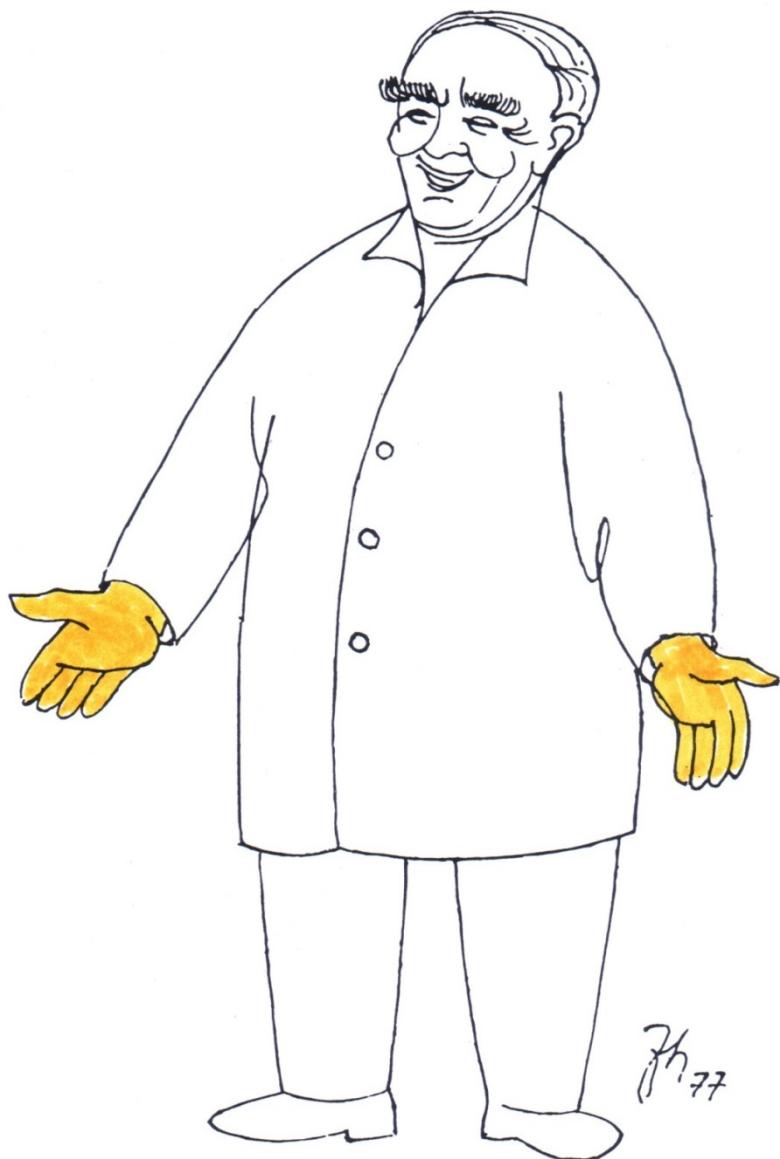


Antonín Fingerland: vocation of a hexagenarian



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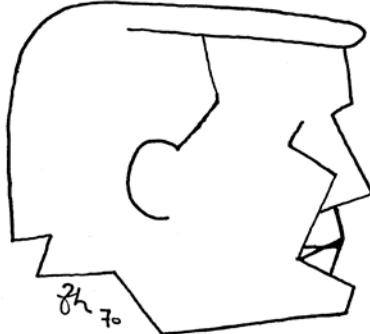
Miloš Smutek



The golden hands of Mr. Protiva



Successful applied research of Pavel Jíru



Jindra Poláček



Milan Horák



Honza Vojtík



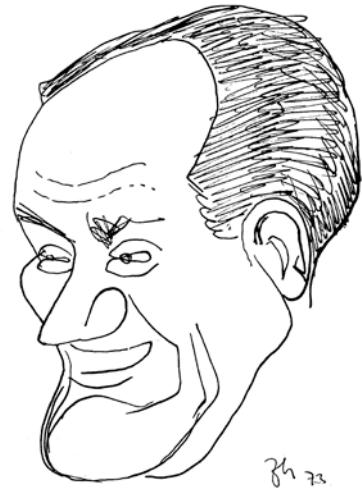
Arnošt Zukal



Mojmír Tomášek



Zlatko Knor 1976



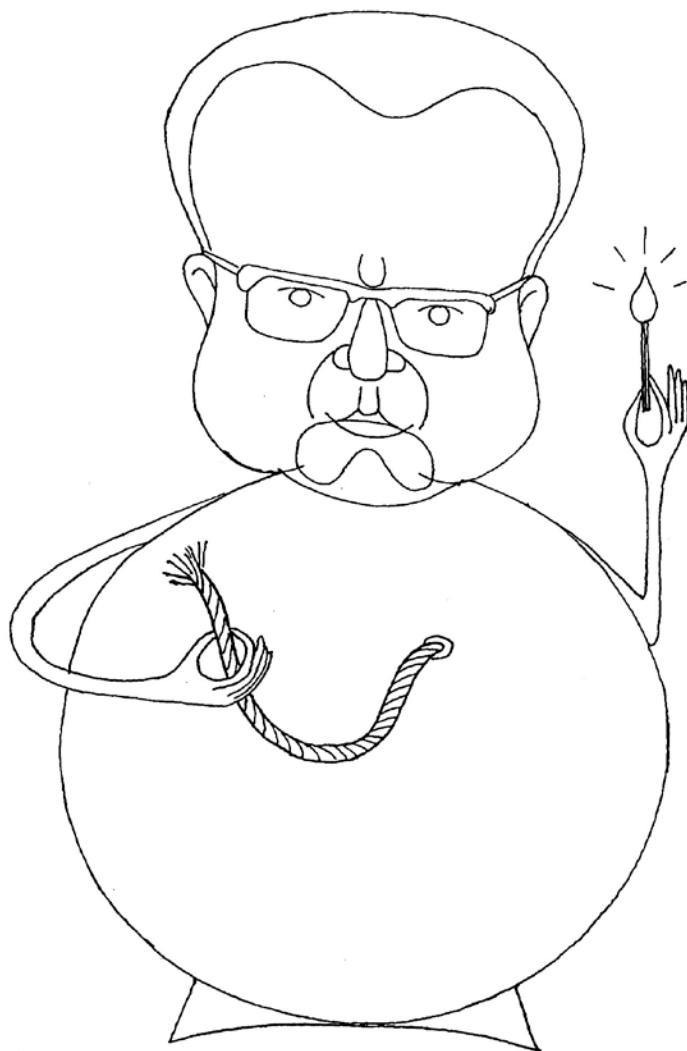
Slavoj Černý in good mood



Karel Habersberger as a fireman



Skepticism of Karel Kuchyňka

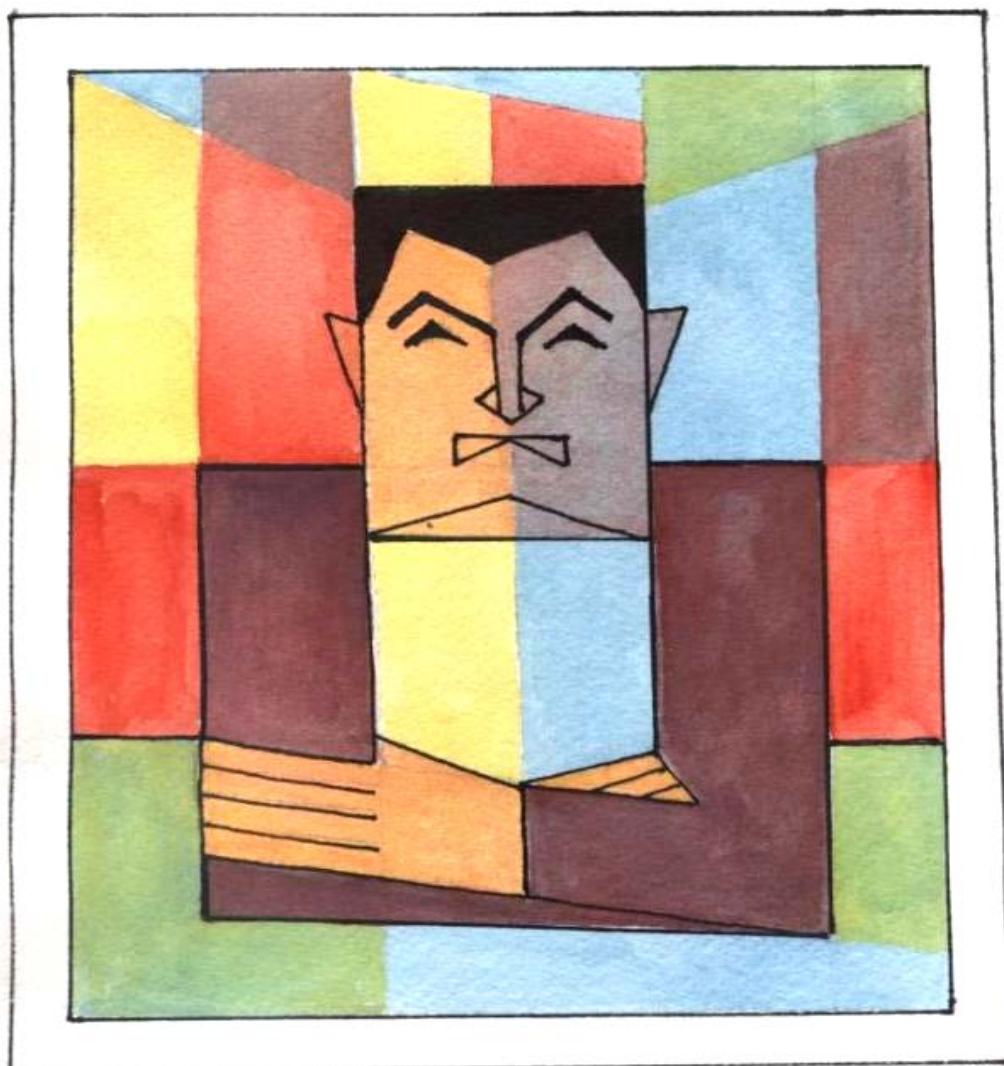


Zlatko Knor (1933- 2007) as a self- destructive anarchist



... ~ ° ° SONATA ESPERTINA COORDINATIOSA A 3 PARTI ° ° ~
• 1 ° LAMENTO INTRODUTTIVO • 2 ° RABBIO FURIOSO DELLI RAPPORTI
RITARDATI • 3 ° PROGETTO OPTIMISTICO MA NON TROPPO •

Zlatko Knor as a research coordinator



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Vladimír Ponec, *selfassurance* 1967, 2009



A vessel for 100 000 units of friendly help (Láďa Hládek) (1978)



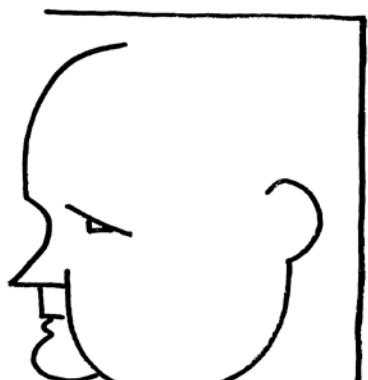
Faust and his diethyl-aluminium Devil (K. Mach)



A substantial part of Milan Kočířík



Bedřich Binek



Dušan Papoušek in three strokes



Anton Fojtík scheming



Ivan Mašín



Uncle Týc: The ZOZÚ view



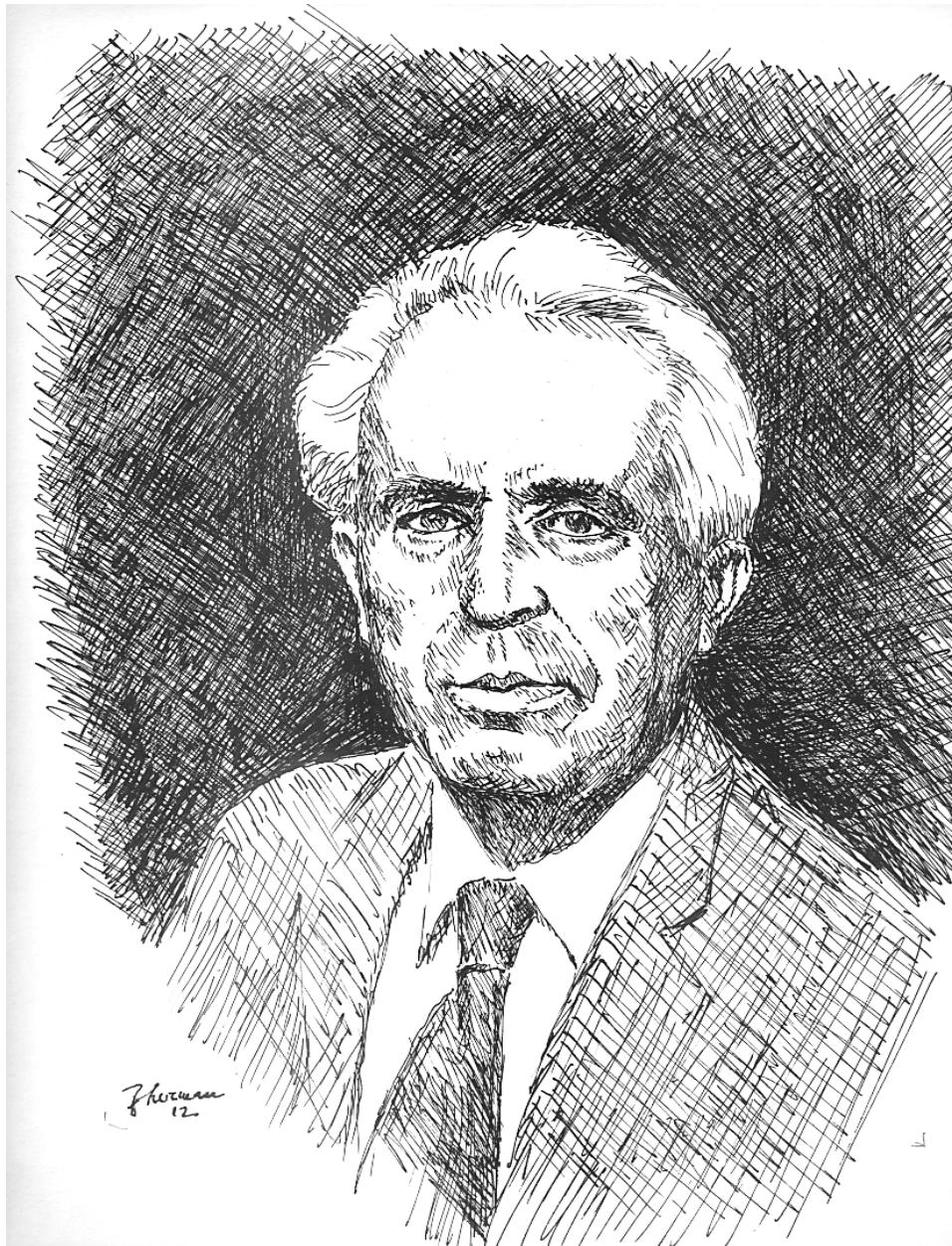
Prof. Dr. Josef Plíva (1924-2000)



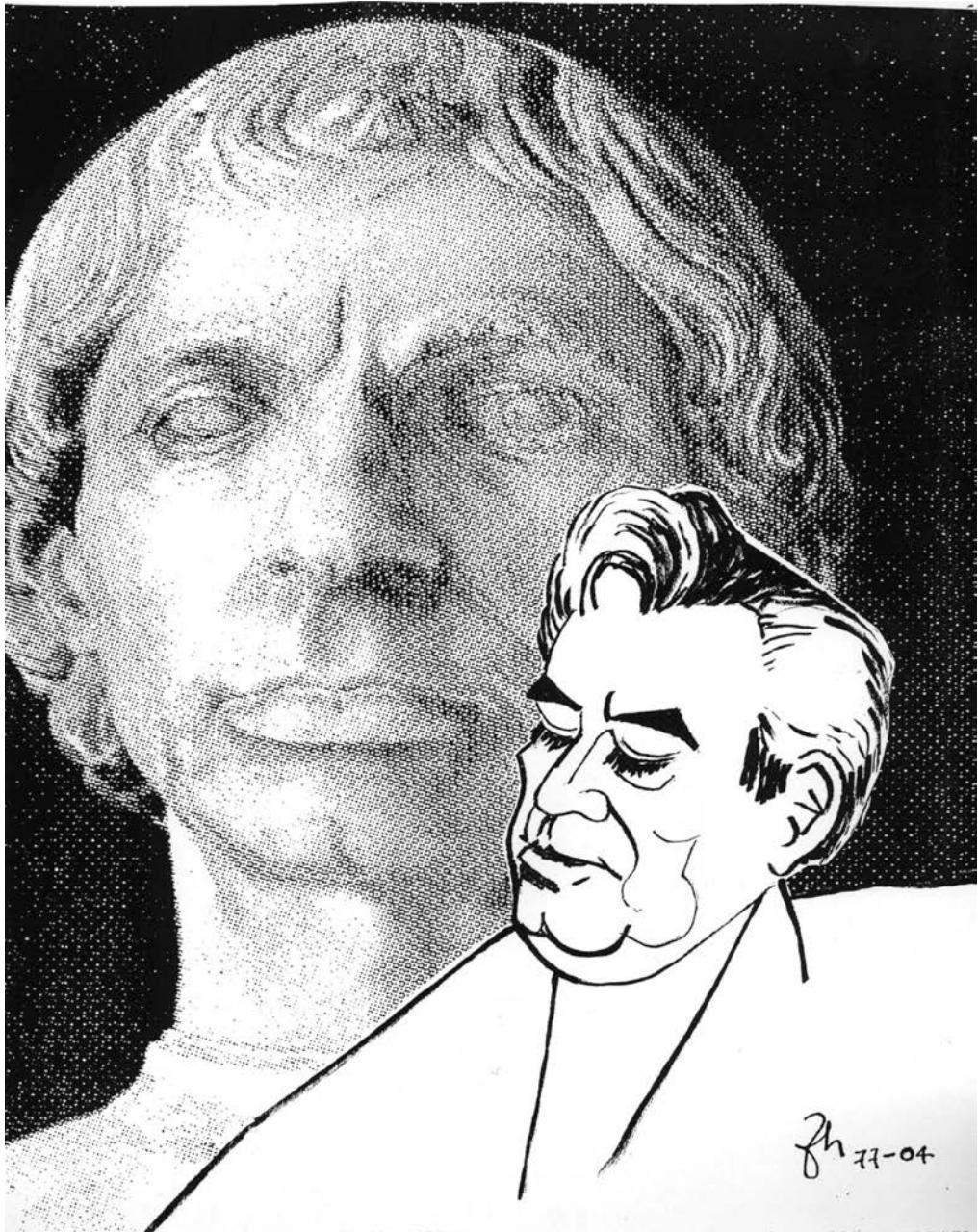
Prof. Dr. Jiří Koryta (1922-1994)



Doc. Dr. Jaroslav Kůta (1924-1981)



Prof. Dr. Antonín Vlček (1927-1999)



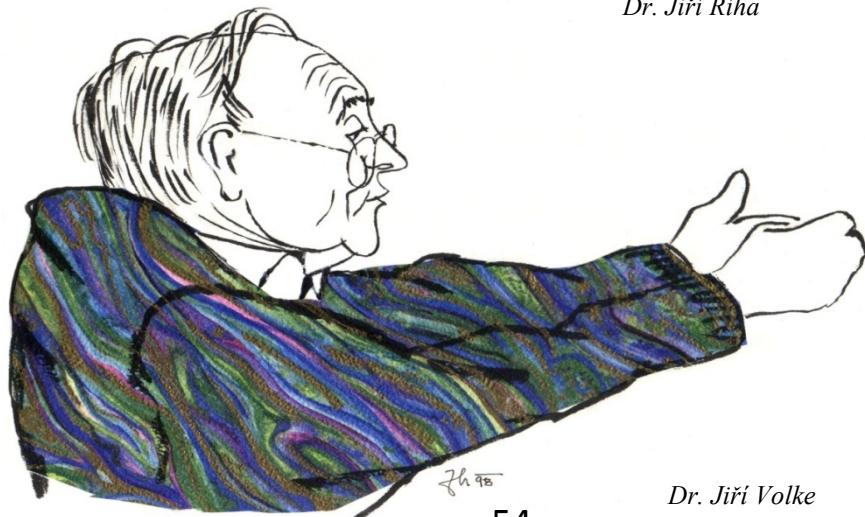
Dr. A.A. Vlček



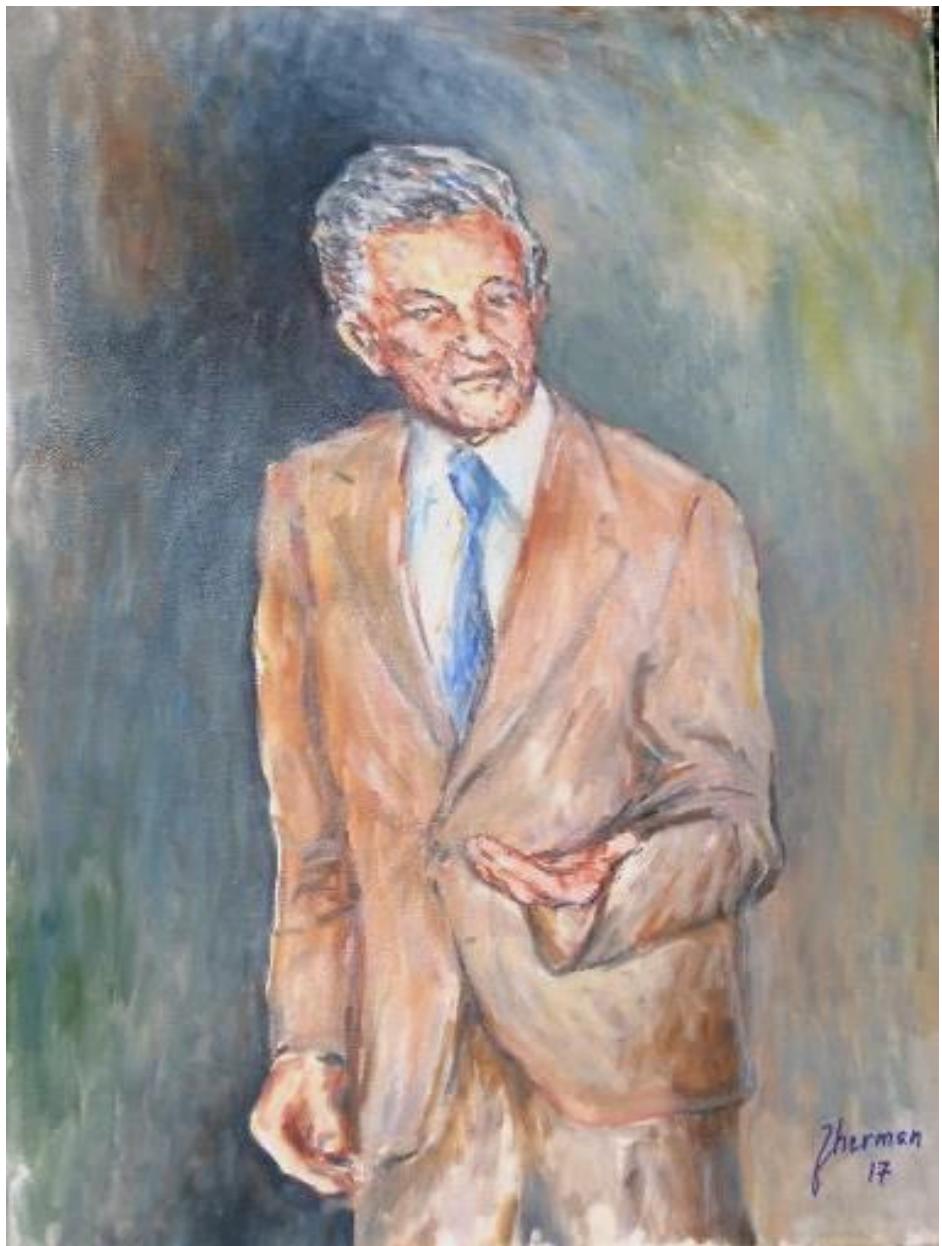
Dr. Březina enjoying himself



Dr. Jiří Říha



Dr. Jiří Volke



Dr. Michael Heyrovský I (1932-2017), 2017



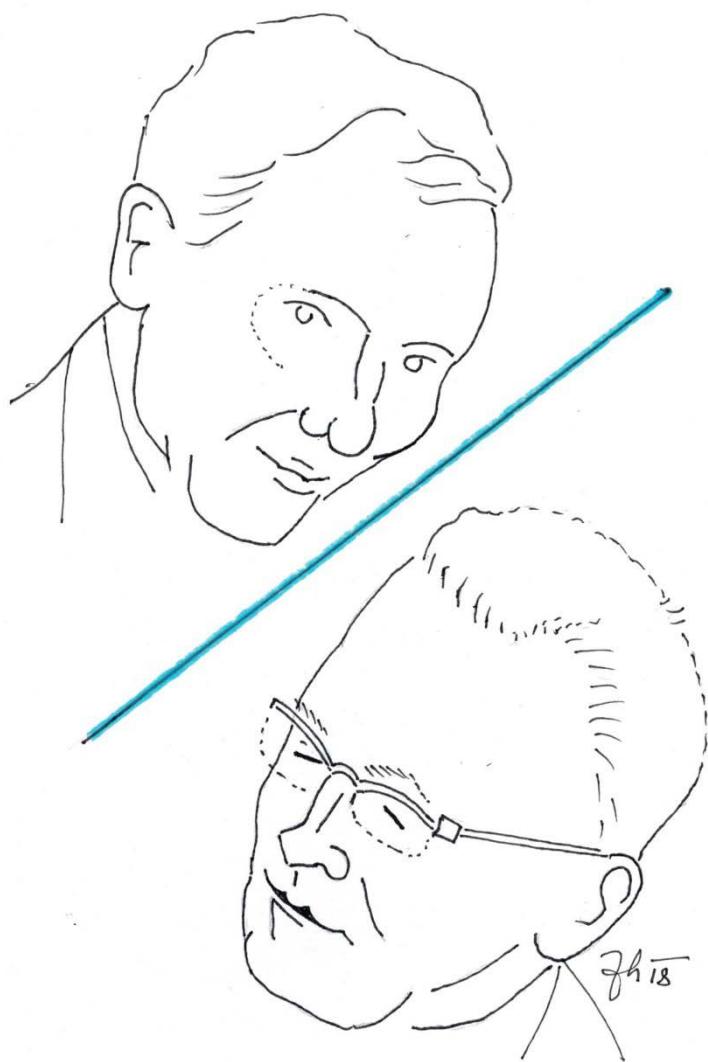
Dr. Michael Heyrovský II (1932-2017), 2017



Dr. Michael Heyrovský (1932-2017), 1992



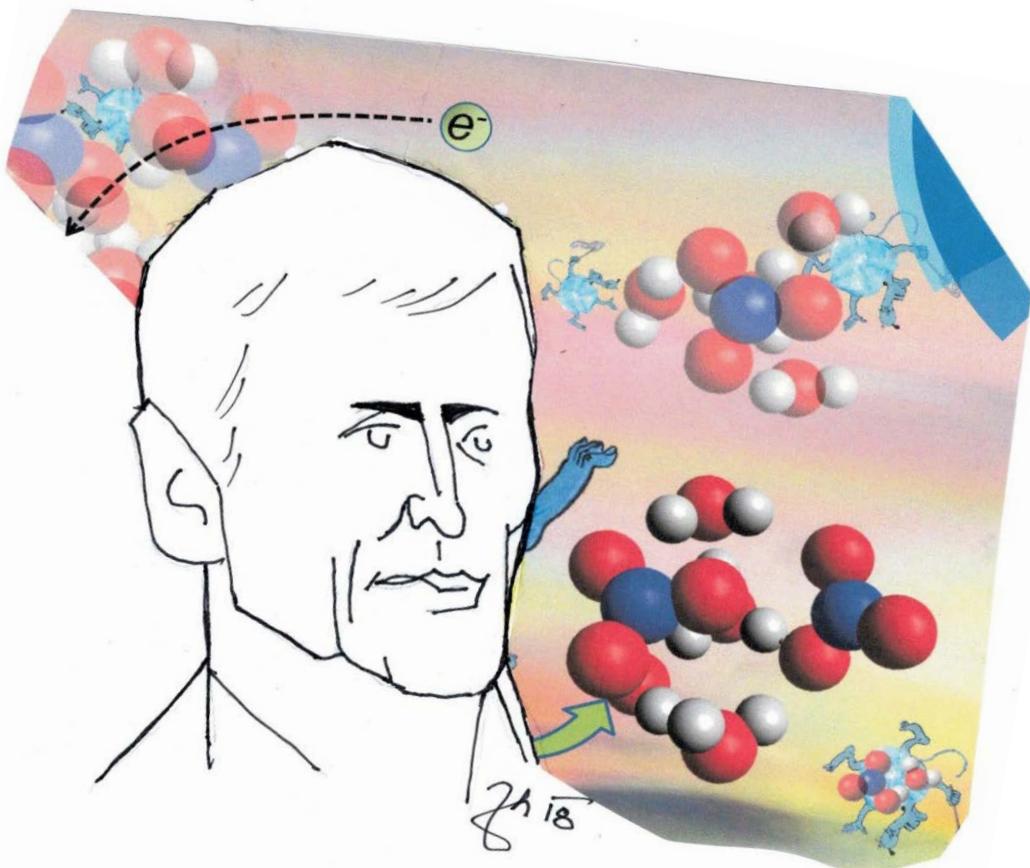
Petr Čársky: quantum chemistry, 2017



Vladimír Mareček – Zdenek Samec:
electrochemistry at interfaces, 2018



Martin Hof: biophysical chemistry, 2017



Michal Fárník: dynamics of clusters, 2018



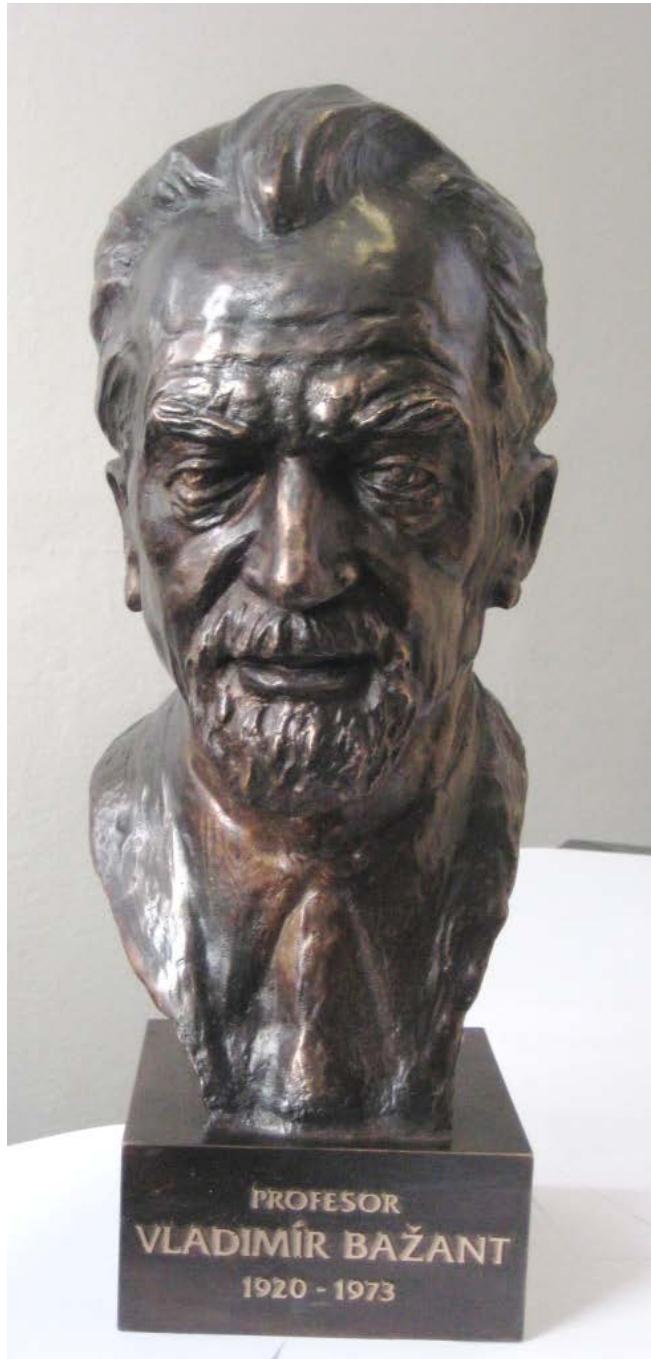
Patrik Španěl: SIFT mass spectrometry, 2018



Dr. M. Matyáš, 1987



Prof. František Běhounek (1898-1973), 1998



Prof. Vladimír Bažant (1920-1973), 1998



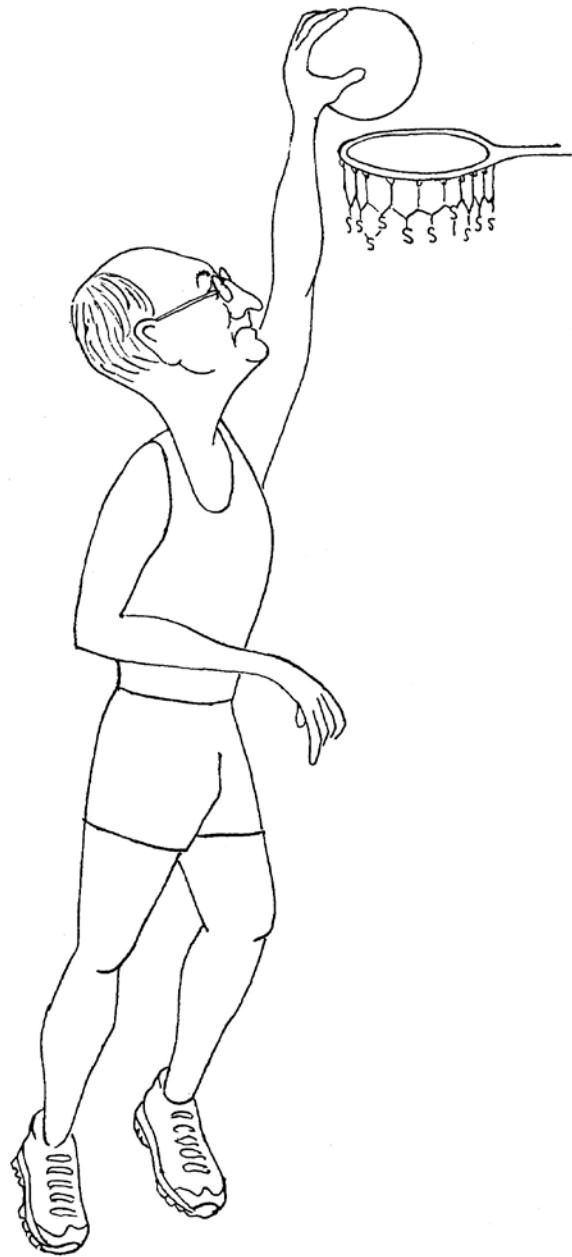
Remembering Prof. Jiří Dvořák, Charles University, a renaissance man



Prof. Jiří Dvořák (1927-1992), 1986



Jiří Vacík (1930-1997), Charles University



Václav Horák (1922-2014, Charles University) and his métier



Josef Pacák (1927-2010), Charles University



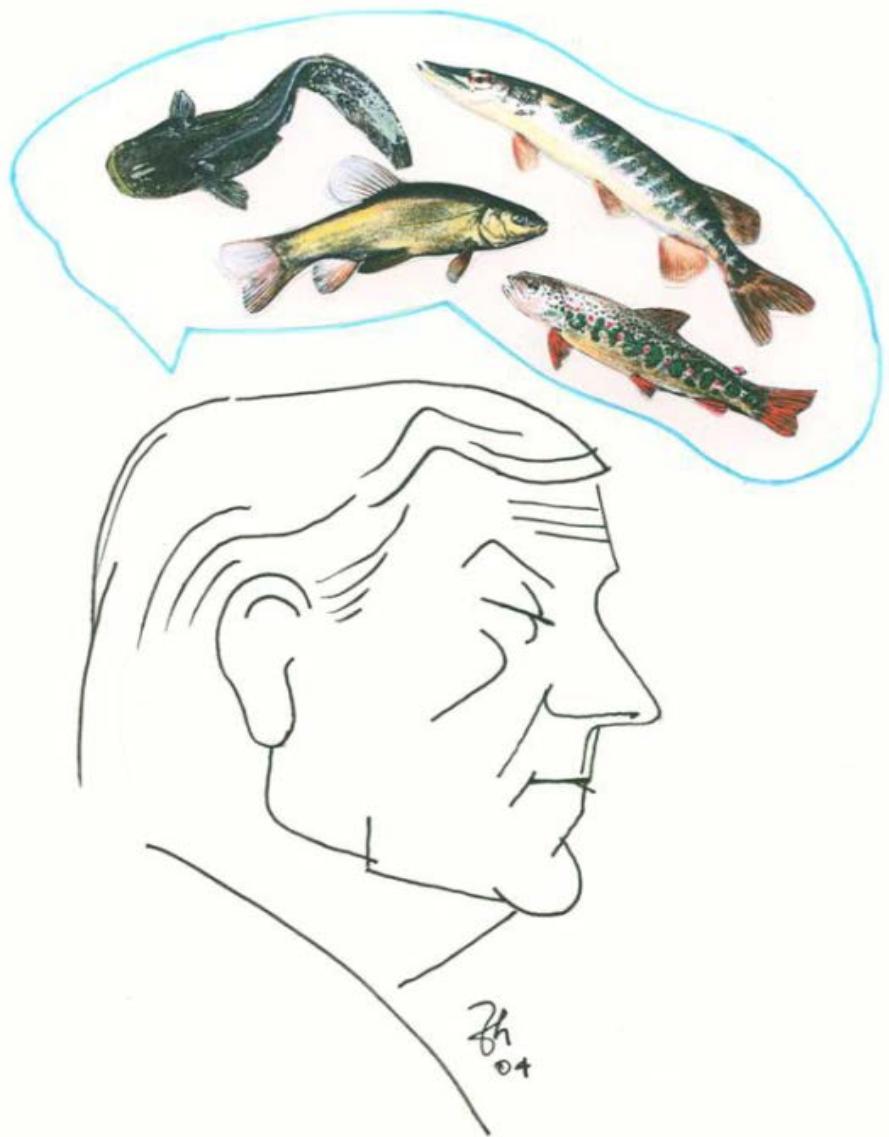
Dr. Bohumil Strauch (1930-2017), Charles University, 2017



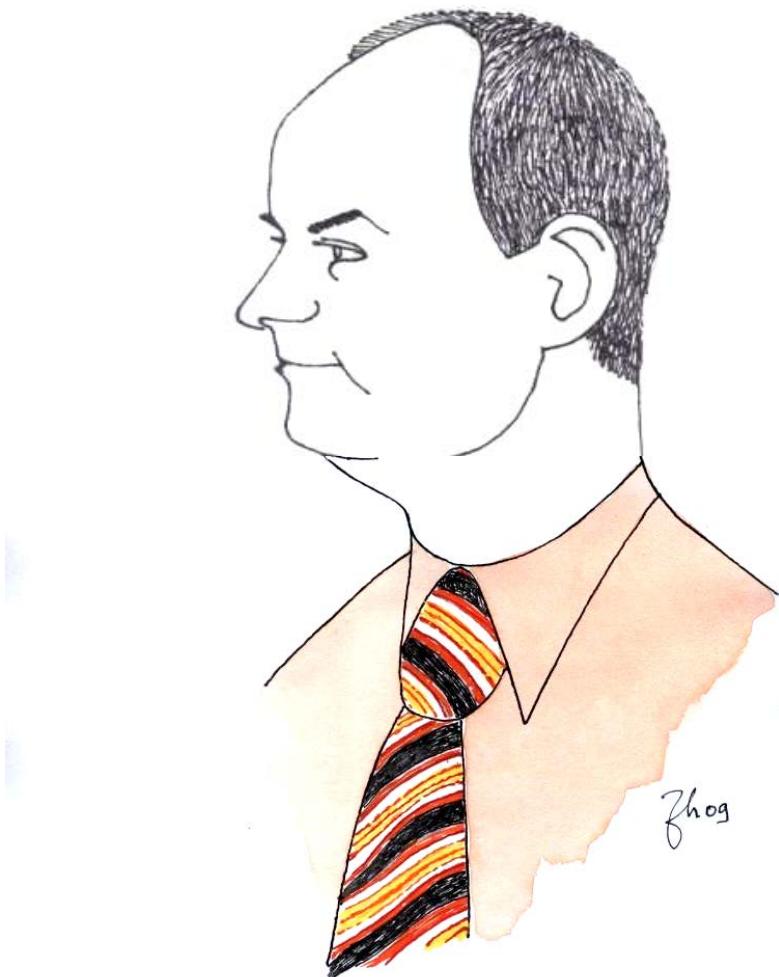
Jana Roithová, Charles University, 2018



Professor Vilim Šimánek, Chairman, Czech Chemical Society



Sweet dreams of Josef Horák, (1934-2013), Czech Chemical Society



Vladimír Havlíček (MBÚ AV ČR)

III.
EUROPE

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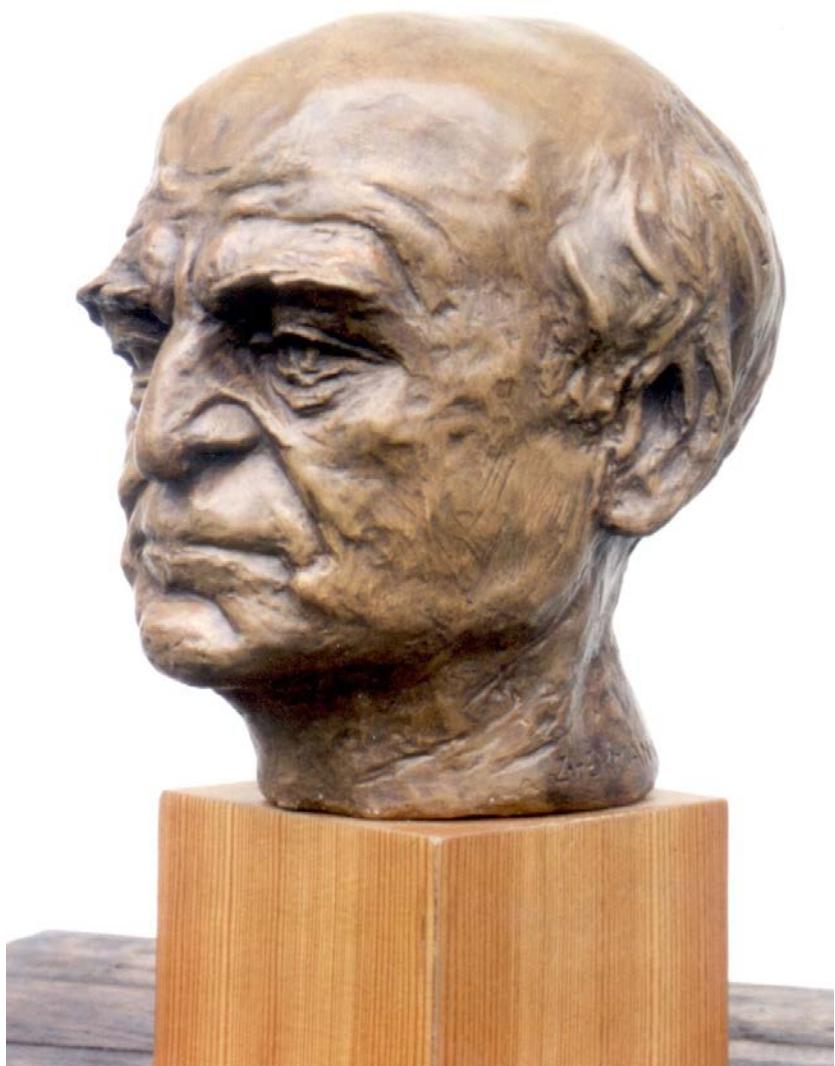
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85. The CARNET EU Network 1994-1999: K.-H. Hoffmann
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The SRMlion Network: Paul-Marie Guyon ,Chairman, Orsay



Paul-Marie (Dr. P.-M- Guyon), 1994



The SRM!on Network: Gérard Mauclair, Treasurer, Orsay
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*The SRMion Network: Davide Bassi and Paolo Tosi ,
A.D. 1995, Trento*



The SRMion Network: Tilmann Märk, Innsbruck



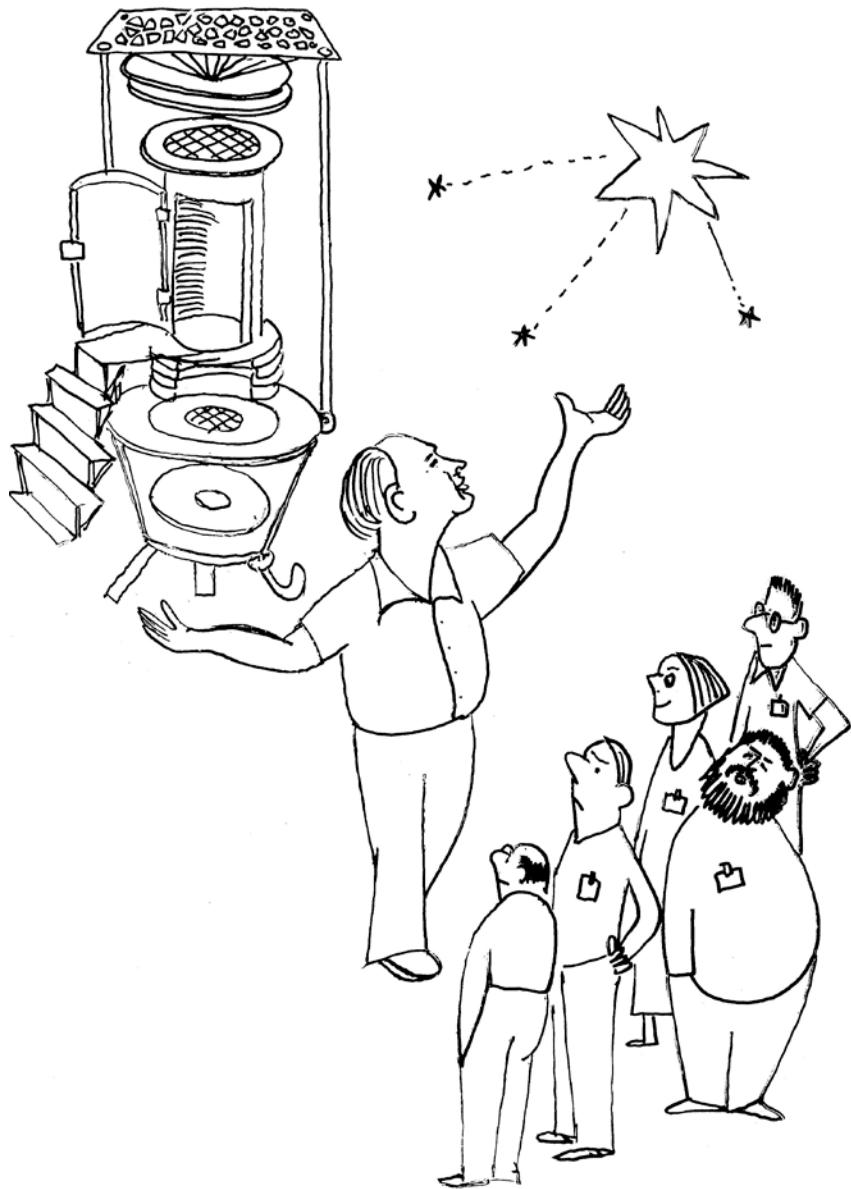
The SRMion Network: Adi Ding, Berlin



The SRM1on Network: Dieter Gerlich, Chemnitz
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The SRMlion Network: Odile Dutuit, Orsay



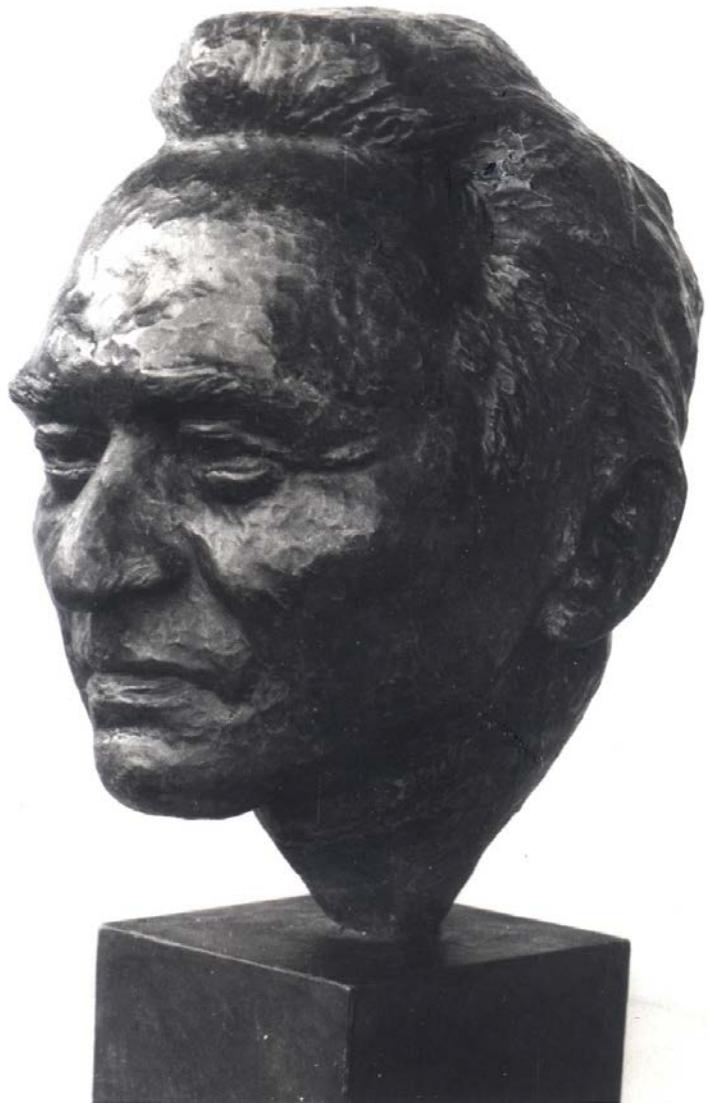
The SRMion Network: Extranetwork visitor John Eland, Oxford



Danielle Dowek (Orsay) as Adele Bloch-Bauer



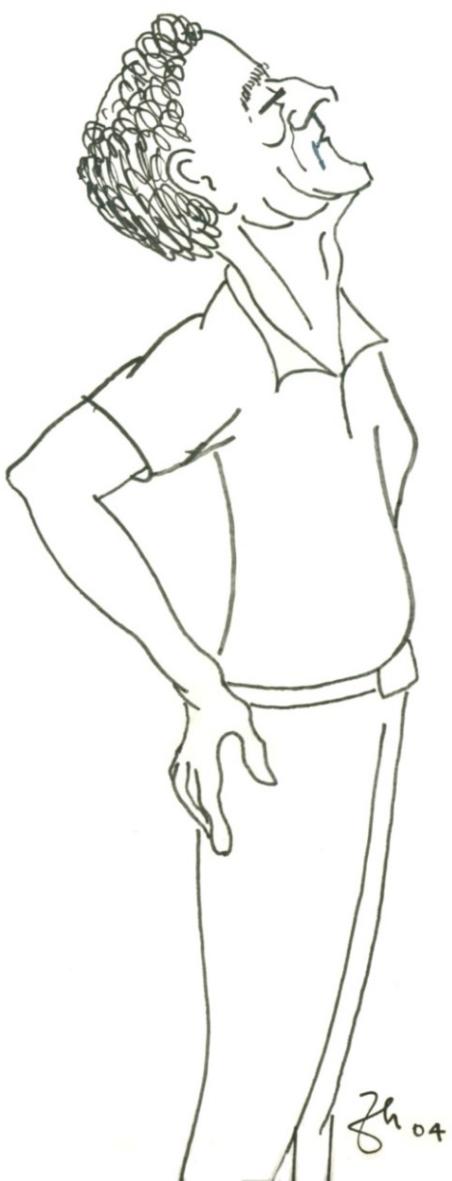
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Jean (Prof. J. Durup), 1988
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Ron MacCarroll (Paris), tied and untied



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PIÈCE

Tom Govers (Paris)
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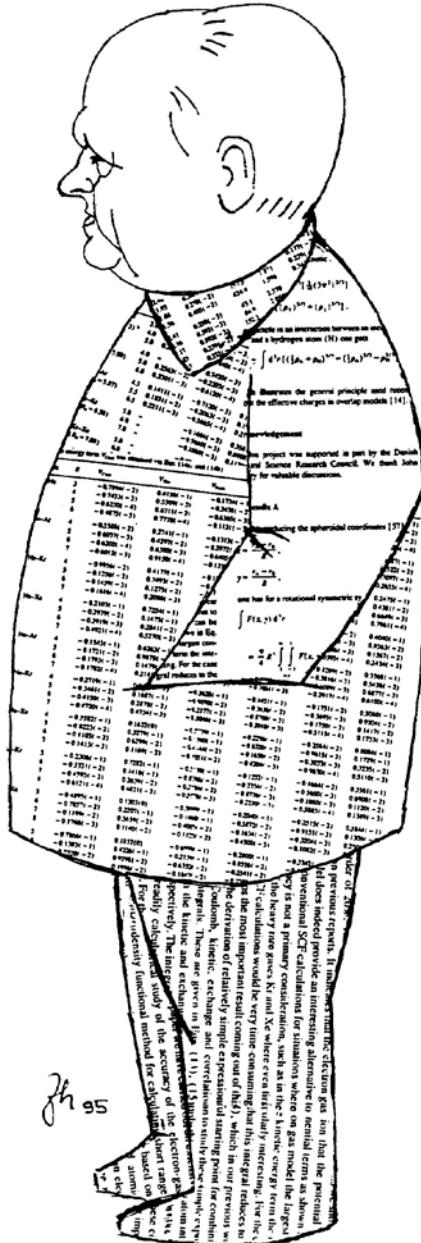
Victor Sidis (Paris)



John Avery, Copenhagen



Gert Billing, Copenhagen
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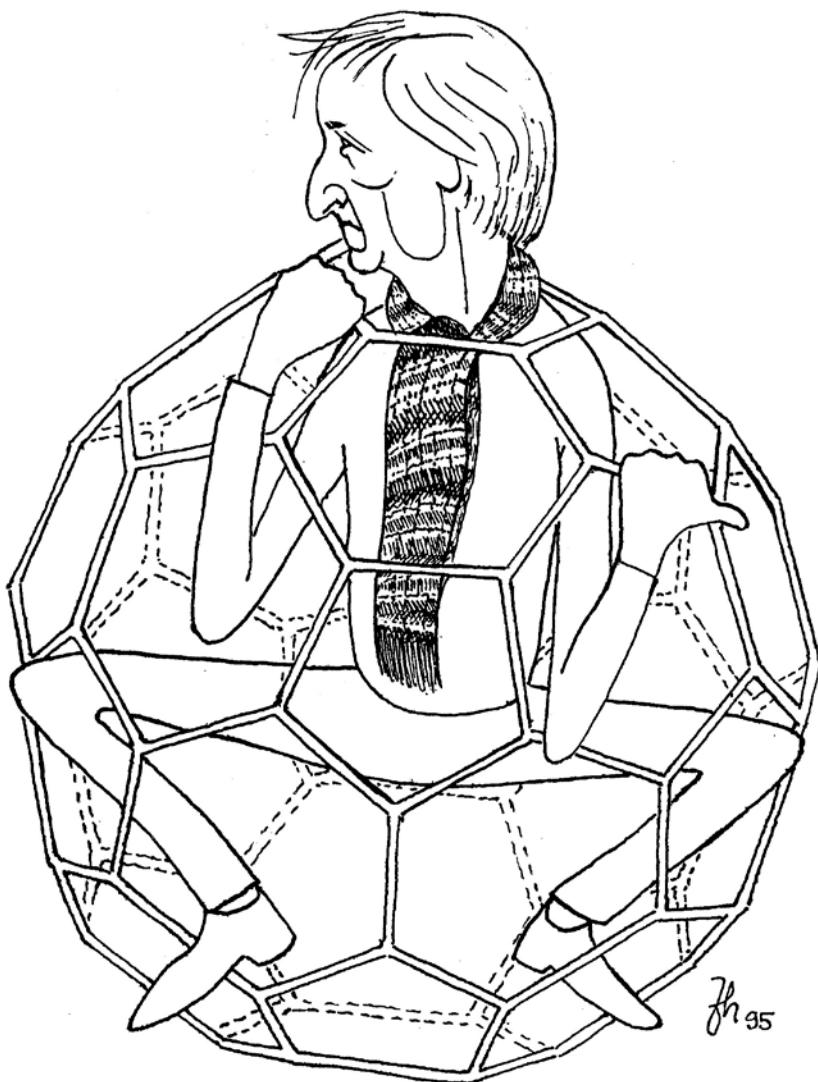
Carl Nyeland, Copenhagen
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The Arsenal of David Field (Aarhus)



Helmut Schwarz, Berlin
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Endohedral He(Imut)



Crossed beam collisional excitation of pyrimidine from the laser-prepared T_1 state into the S_1 state
Ch. Ottiger, A.F. Vilsov¹

Max-Planck-Institut für Strömungsmechanik, Postfach 20-2807 Göttingen, Germany
Received 14 March 1994

(Reprinted from The Journal of Chemical Physics, Vol. 97, No. 4, 1432-1437, 15 August 1992)
Editor in C.S. Gwynn

Metastable Ion in the Mass Spectra of Propane and Deter-

gens
C. Ottiger, M. Mühlleitner, P. Hahn, G. Peters, G. Ortmann
Physikalisch-Technische Bundesanstalt, Berlin, Germany
Received 12 March 1992

The metastable conditions of the three carbon isomers of propane and detergents were investigated. Detergent isomers exhibited a strong effect. A very weak effect was observed for propane. The ionization processes were shown to be secondary processes in detergents. The ionization of propane prior to the ionization of detergents is far from accurate, and

INTRODUCTION
In a previous paper¹ delayed depolarization (so-called "metastable transitions") of carbon isomers due to electron impact from near the ion focus have been studied in much more detail. Using an ionization potential distribution function (IPDF) of all three isomers, the calculated transients in T_1 and A_1 states were calculated. The most intense observed secondary loss of T_1 CO₂ was found in all other cases except by a slight amount in T_1 CO₂. The loss was explained by a slight difference in the ionization energies of T_1 and A_1 , due to different zero-point energies. However, the relative intensities of the secondary losses followed a symmetric pattern which could be described with the symmetry factors of the valence orbitals, with the same magnitude for the T_1 and A_1 states. The intensity of the secondary loss decreased, both for T_1 and A_1 , as the ionization frequency increased. As an example, the secondary ionization rate of T_1 propane in D_2 is as high as 10% at an ionization energy of 10 eV, and it is negligible at the primary ionization energy.

Luminous charge transfer 1 with Ar, N₂, H₂, D₂ and CO

A. Ehretz, N. Mustafa, and C. Ottiger
Max-Planck-Institut für Strömungsmechanik

2. Institute of Physics of the Czech Republic

(Received 5 August 1995; accepted 4 September 1995)

Luminous charge transfer in a luminous CO₂ ($E^{\infty} = \chi^{\infty}$) was measured. In the case of propane, the cross section for CO_2 (A_1) was $\sim 1.2 \times 10^{-16} \text{ cm}^2$. This can be explained by Frenkel ratio 1.2. The cross section for energy transfer with the vibration of a energy species, possibly excitation is in all cases about 10 times smaller.

[S0003-9000(95)00334-4]

1 INTRODUCTION

The existence of deeply charged ions has been established in mass spectrometric studies early part of this century.¹ Yet detailed measurements of their properties have only recently become available. This has been made possible by experimental techniques and theoretical calculations which are now available. Deeply charged molecular ions are interesting, interesting of experimental and theoretical interest. They are also important for applications such as for ion beams. They are usually slow, having a low energy density, and the double charge is important. Among the other ions, ions with a large number of charges are being investigated. Because the ionization potential of these ions has been studied even from them to obtain many information, they are represented by a large number of ions. These ions which often show different ionization potential and thus have specific kinematics and dynamics. However, these projectiles have only recently been

Ch. Ottiger¹ and A. F. Vilsov²
Max-Planck-Institut für Strömungsmechanik, Bunsenstrasse 10, D-37072, Göttingen, Germany

D. Xu²
Institute of Chemical Physics, Chinese Academy of Sciences, P.O. Box 1128

Beijing, People's Republic of China

Received March 21, 1995; In Final Form: August 14, 1995

The collision-induced intramolecular energy transfer from CO(T_1) to CO(S_1) and CO(S_1) was studied in a crossed-beam arrangement. CO molecules were excited in the T_1 state in a dc discharge, having in the expansion of the COCO supersonic beam. The total value distribution of CO(T_1) was obtained from the spontaneous emission spectra of CO₂ at 1013 nm. Additionally, the CO(S_1) and CO(T_1) atoms were detected by recoil from excited atoms at a height 240 nm. Ne, Ar, Kr, and CO₂ (S_1) and CO₂ (T_1) atoms were used to study the energy transfer process. The CO(S_1) atom was used to observe the energy transfer CO(S_1) \rightarrow Ar, Kr, and CO₂ (T_1). This collision-induced energy transfer was observed for populating various rotational levels in both CO₂ (T_1) and CO₂ (S_1). They were obtained from the emission intensity of the product CO₂ (S_1) and CO₂ (T_1) atoms. The role of the CO (T_1) atom in the reaction and its influence on the energy transfer process is discussed. The CO (S_1) atom is populated to a large extent with the CO (S_1) -Ar, -Kr level, according to the gateway mechanism. As a result, the reaction of the CO (S_1) atom with the CO (T_1) -Ar, -Kr level exhibits a very simple base center, with some superimposed spike-like

Studies of collisional coupling between the low-lying π states of CO₂ (T_1), π^+ , δ^+ , or δ^- and the CO₂ (S_1) state. Measurement of fast vibrational energy transfer and stimulated emission due to CO₂ (T_1), π^+ , δ^+ , or δ^- and the CO₂ (S_1) state

W.-L. Chen,¹ J.-Y. Lin,¹ S.-H. Chang,¹ and C.-C. Lin²
Institute of Physics, Academia Sinica, Taipei, Taiwan, Republic of China

(Received 22 June 1995; accepted 26 July 1995)

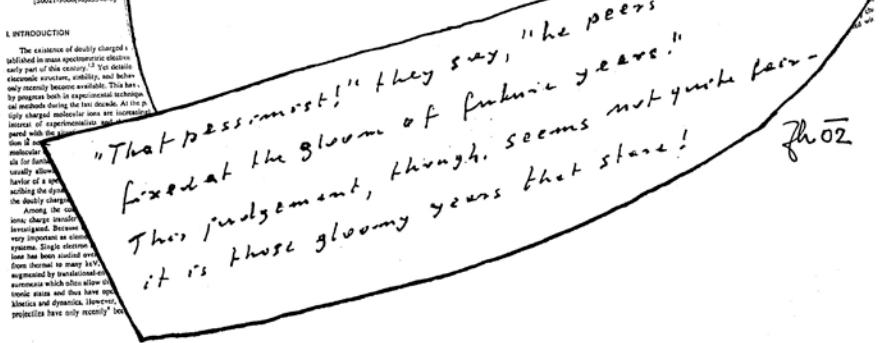
Abstract: The collisional coupling between the low-lying π states of CO₂ (T_1), π^+ , δ^+ , or δ^- and the CO₂ (S_1) state was studied by the pulsed-laser technique. The collisional coupling between the π states and the S_1 state was determined from the stimulated emission due to the CO₂ (T_1), π^+ , δ^+ , or δ^- and the CO₂ (S_1) state. The collisional coupling between the π states and the S_1 state was determined from the emission intensity of the product CO₂ (S_1) and CO₂ (T_1) atoms. The role of the CO (T_1) atom in the reaction and its influence on the energy transfer process is discussed. The CO (S_1) atom is populated to a large extent with the CO (S_1) -Ar, -Kr level, according to the gateway mechanism. As a result, the reaction of the CO (S_1) atom with the CO (T_1) -Ar, -Kr level exhibits a very simple base center, with some superimposed spike-like

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Christoph Ottiger (1933-2008), Göttingen



Christoph (Prof. Ch. Ottinger), 1992
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Jürgen Troe (Göttingen)
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Peter Toennies (Göttingen) and Giorgio Benedek (Milano)
struggling with the surface lattice dynamics



Prof. Peter Toennies lecturing, 2017



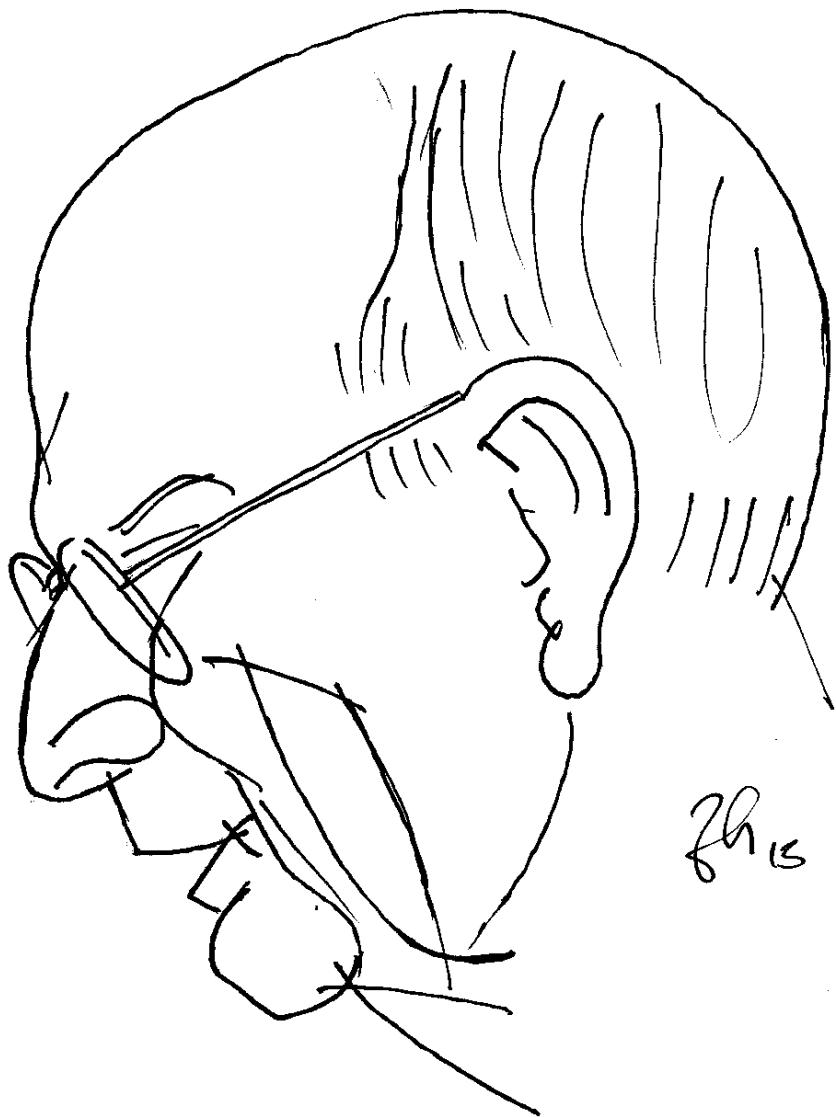
Peter (Prof. J. P. Toennies), 1990



Prof. Jan Peter Toennies II, Göttingen,, 2017



Dr. Udo Buck, Goettingen, 2017
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Udo Buck, Göttingen



Giorgio (Prof. G. Benedek), 1997

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Giorgio Benedek, 1995



Franco Gianturco (Rome), A.D. 1983



Franco Gian-Turco (Rome)



Franco Gianturco at home in Rome



Franco (F. A. Gianturco), 2010

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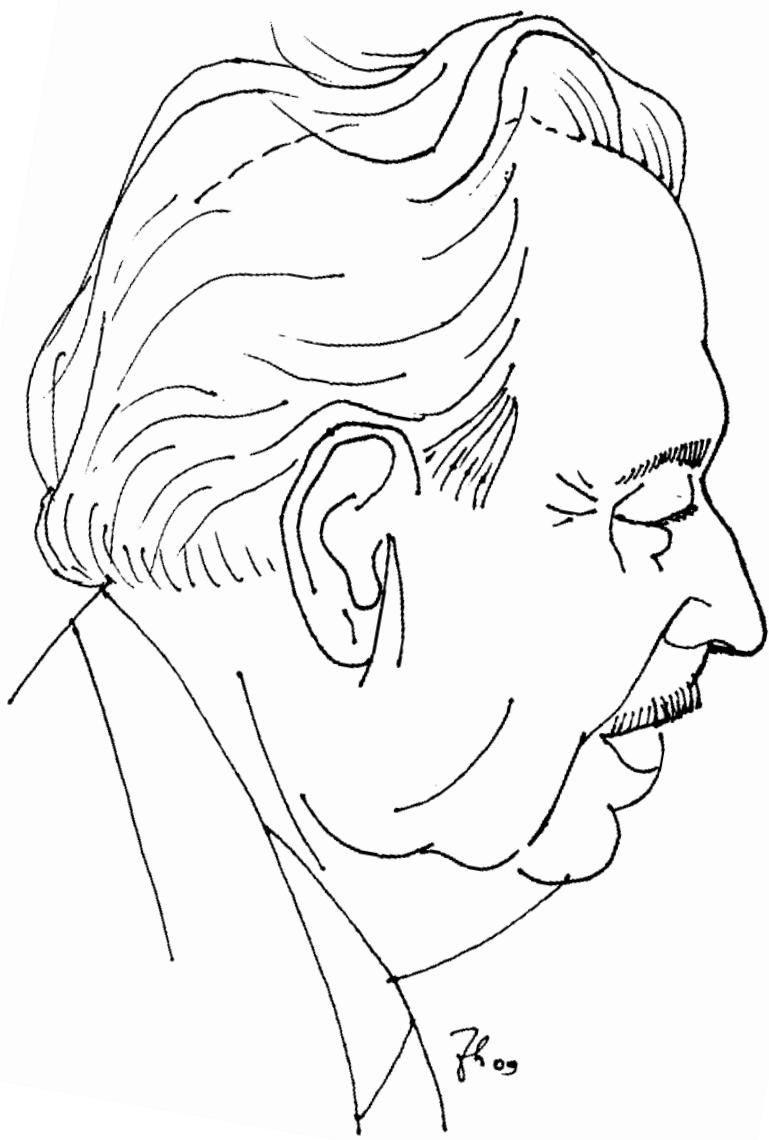
A.A. Volpi, Perugia
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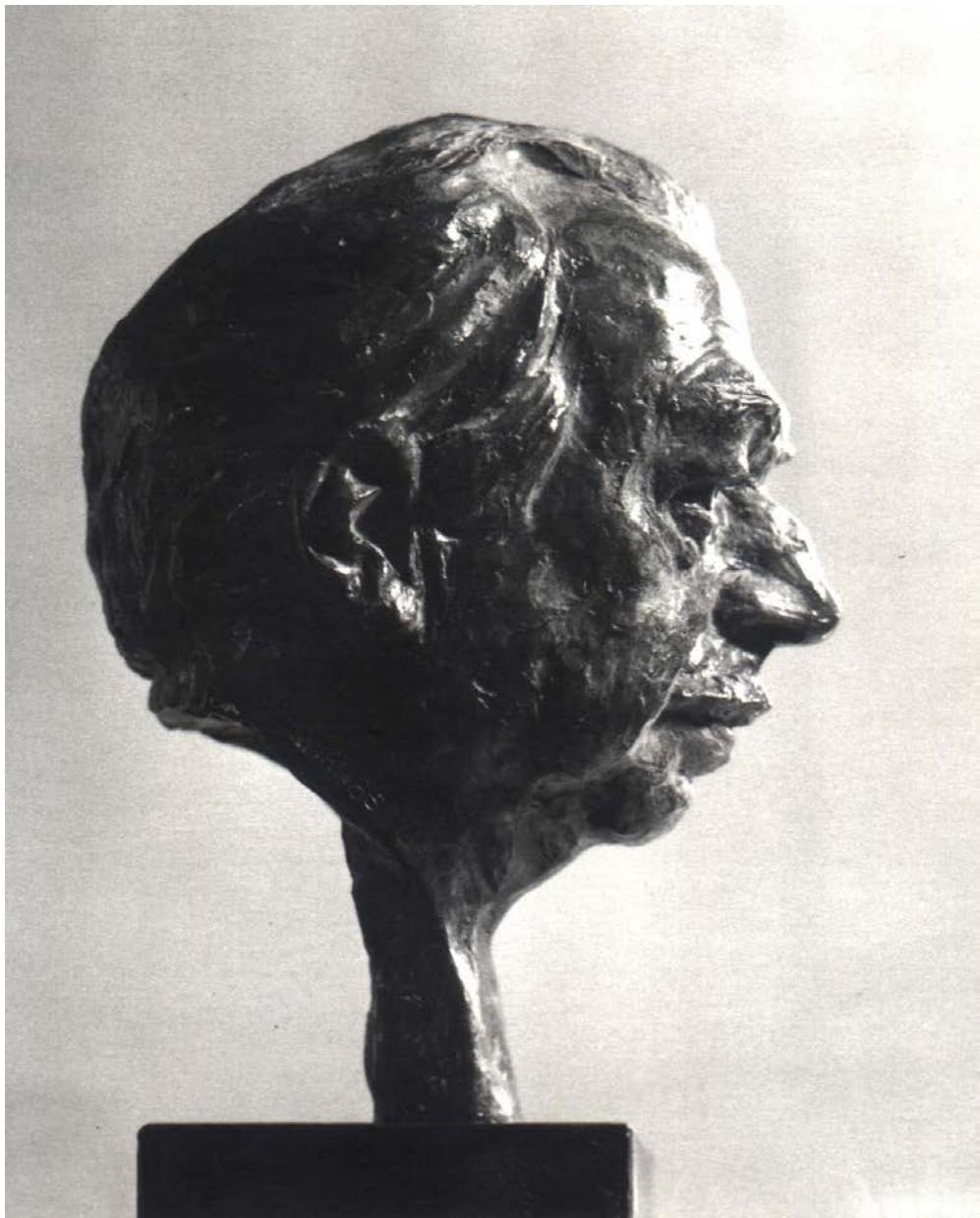
Black&White: Piergiorgio Casavecchia (Perugia)



Prof. Paul Crutzen, 2007



John Herbert Beynon (1923-2015), Swansea



Prof. John H. Beynon (1923-2015), 1987



Keith Jennings, Sheffield

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Gabriel Balint-Kurti (Bristol)



David Smith (Keele U.): Ions in collision
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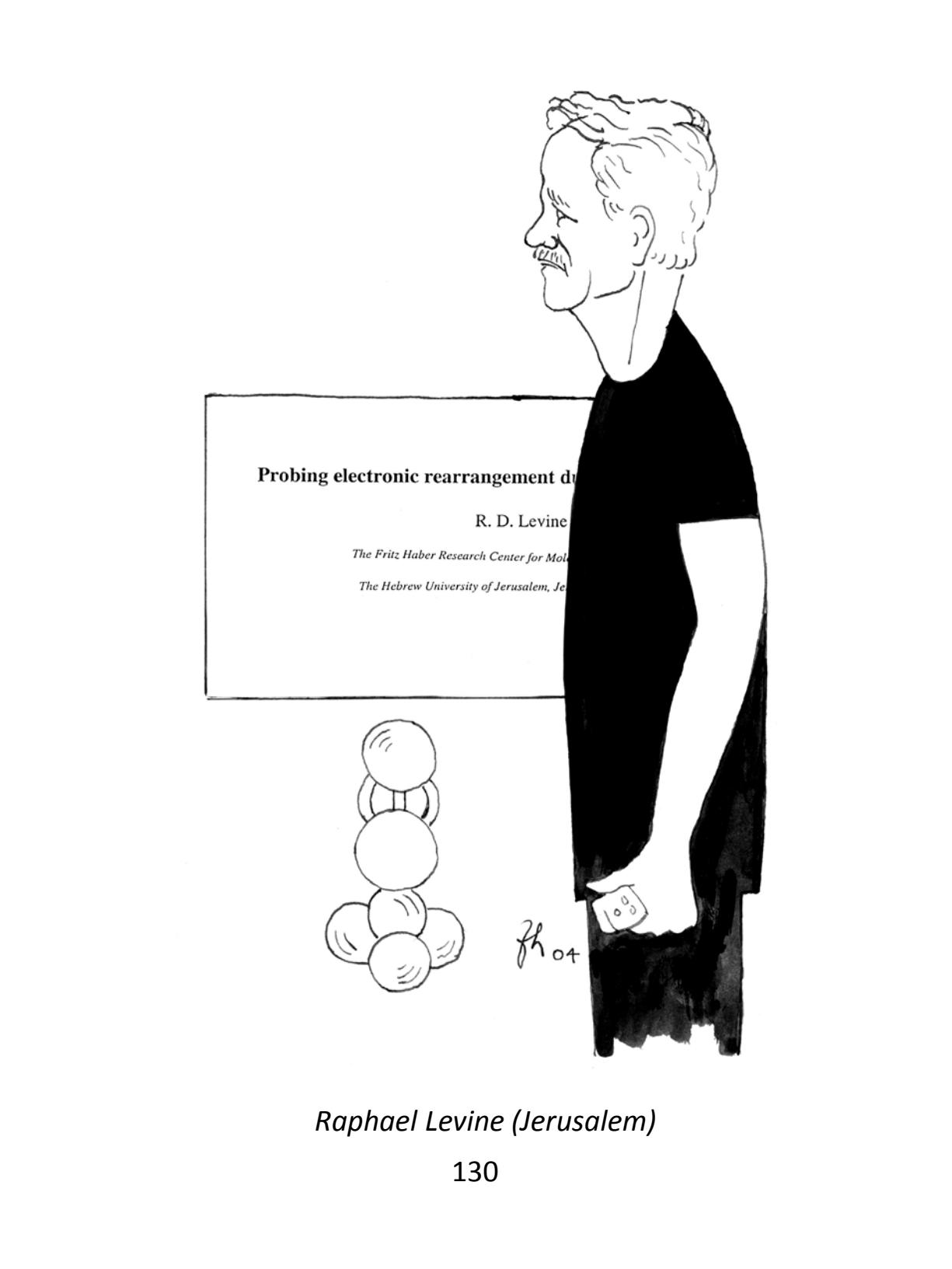
The Post-Doc traveller (Keith Birkinshaw, Aberystwyth)



Viktor L. Talroze (1922-2004) in 1959 (Moscow)



Chava Lifshitz (1936-2005) (Jerusalem)
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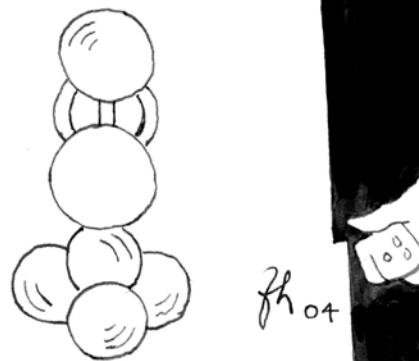


Probing electronic rearrangement during

R. D. Levine

The Fritz Haber Research Center for Molecular

The Hebrew University of Jerusalem, Jerusalem, Israel



fh
ot

Raphael Levine (Jerusalem)



Michal Baer (Soreq), fully bearded
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*Joshua the Thundervoice
Lecturing at the Gordon Conference 1980
(Joshua Jortner, Tel Aviv)*



Tino Gäumann (Lausanne)



John Maier (Basel)



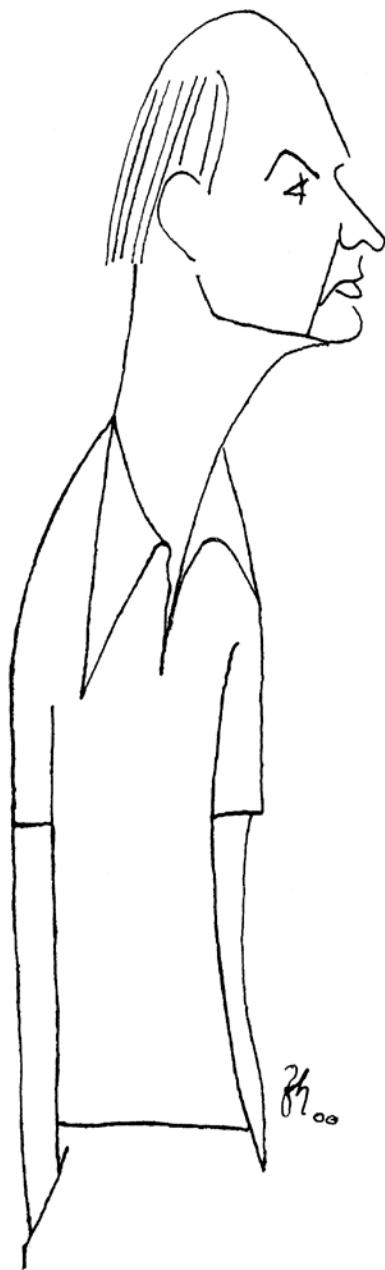
John Maier (Basel), hairstyle 1996
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Martin Quack (Zürich)



Renato Zenobi (Zürich)



Steve Stolte (Amsterdam)



H. Linartz (Amsterdam)
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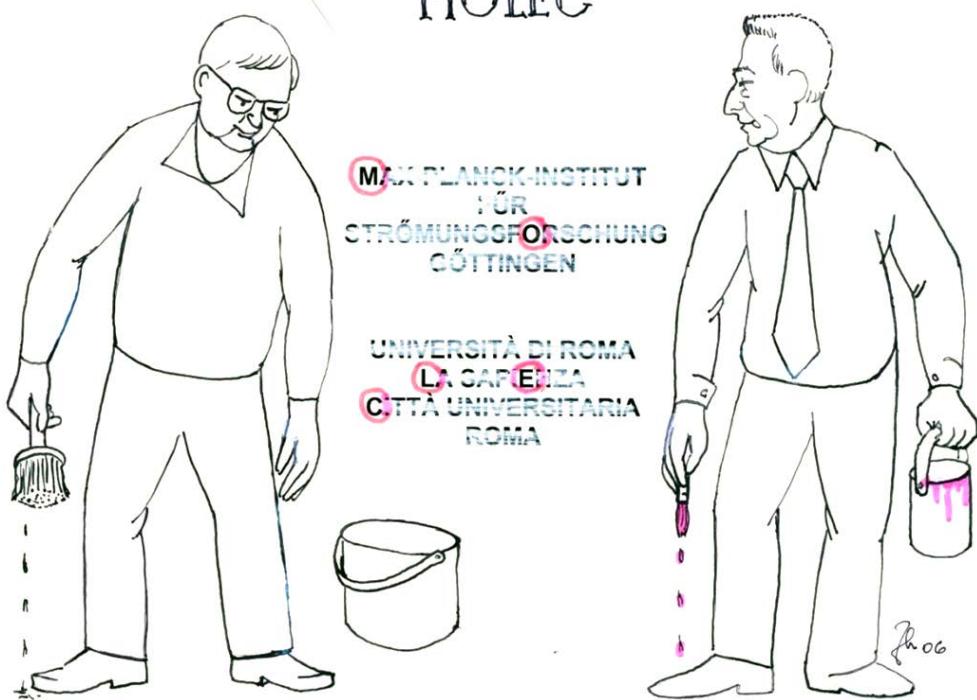


The two Gentlemen of Madrid:
Gerardo Delgado-Barrio and Pablo Villarreal

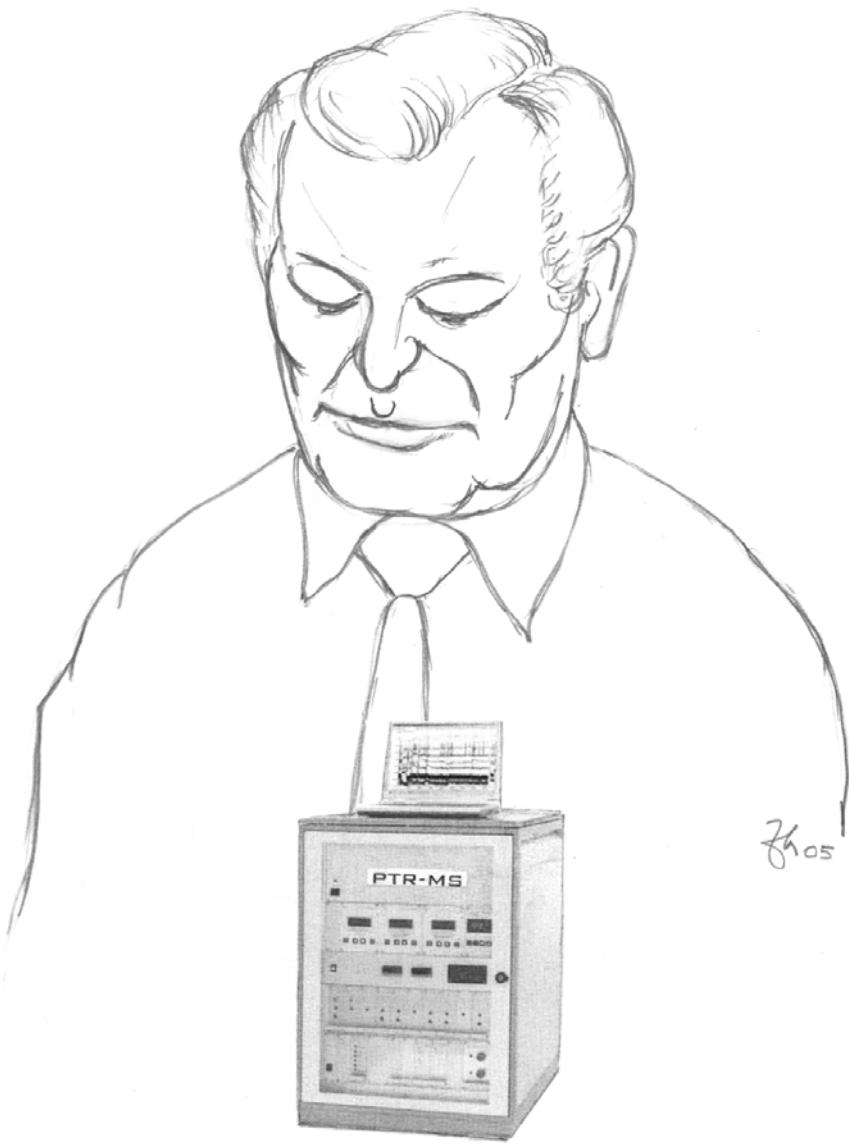


*Antonio Varandas (Coimbra)
Chairman of XVIII MOLEC 2010*

LAYING FOUNDATIONS OF MOLEC



The founders of MOLEC (J.P. Toennies, F. Gianturco)



Werner Lindinger (1944-2001), Innsbruck



Hannspeter Winter (1941-2006), Wien
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Matts Larson (Stockholm)
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Antti Hesso (Helsinki)

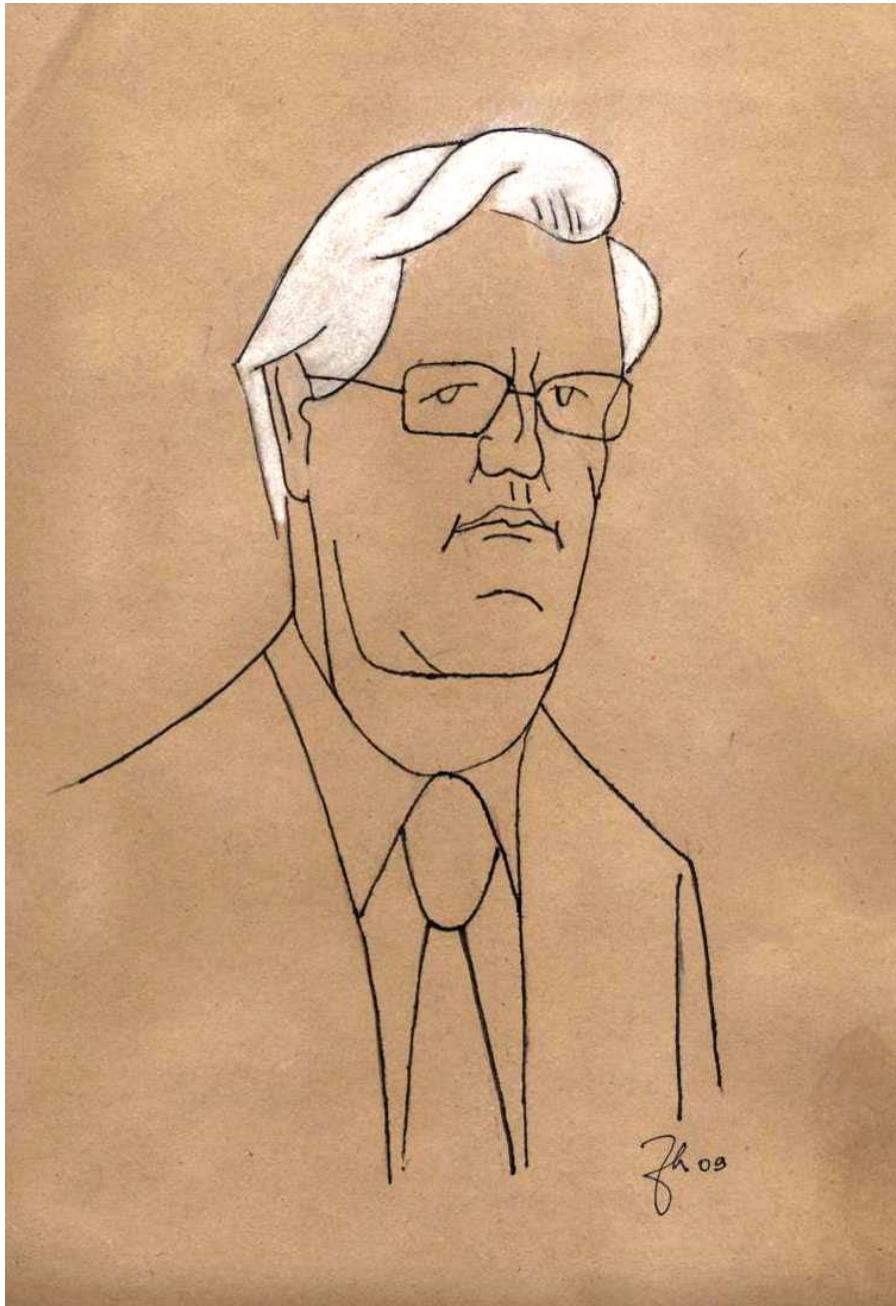


Zh 15

Einar Uggerud (Oslo)
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György Lendvay (Budapest)



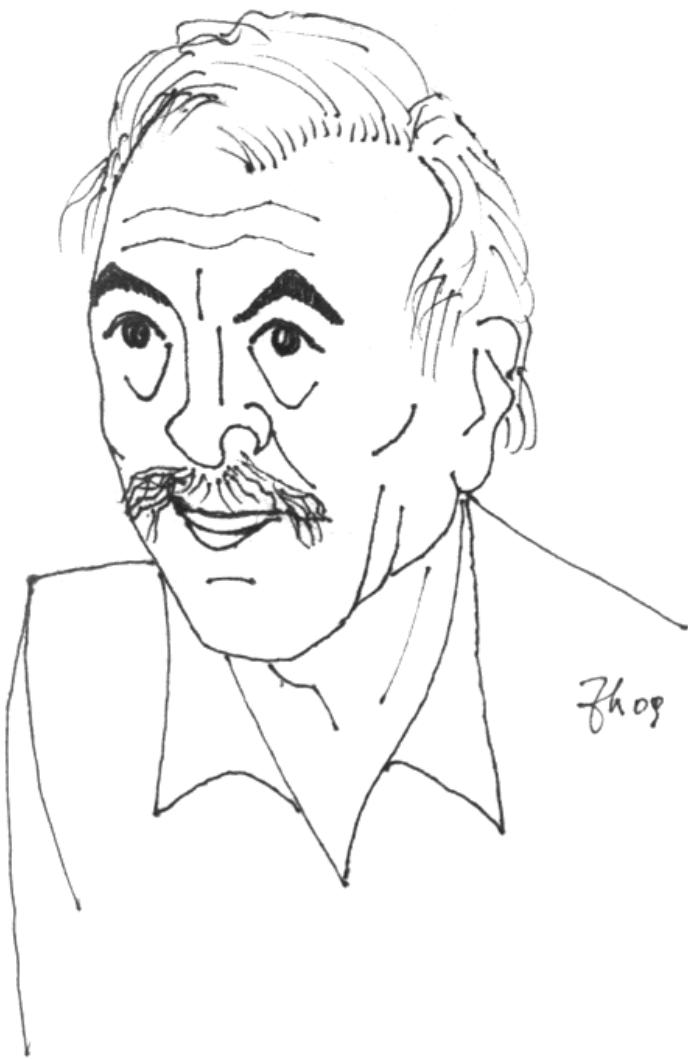
*IMMS (Interntional Mass Spectrometry Society):
Nico Nibbering (1938-2014), Amsterdam*



IMMS (*International Mass Spectrometry Society*):
Pietro Traldi (Padova)



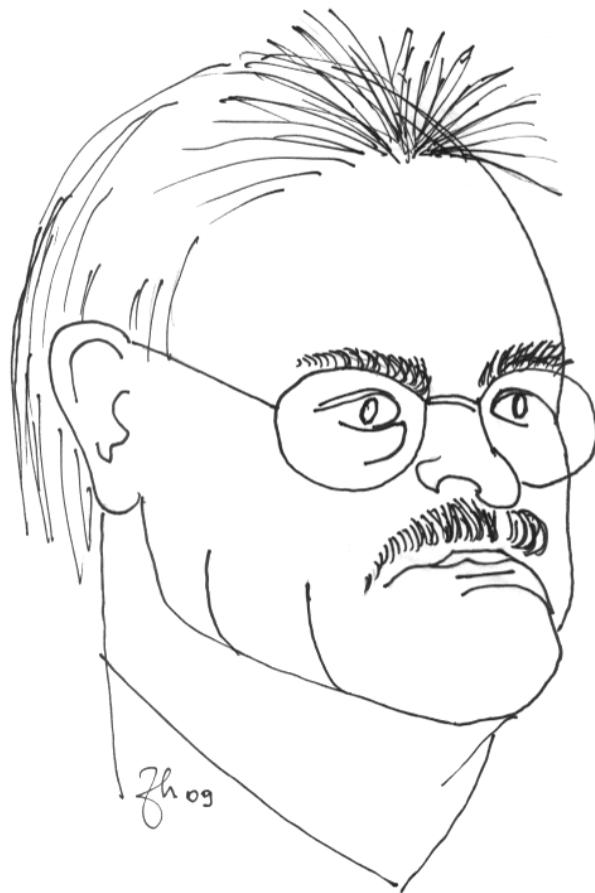
*IMMS (Interntional Mass Spectrometry Society):
Erich Schmid (Wien)*



*IMMS (International Mass Spectrometry Society):
Peter Derick (UK-NZ)*



IMMS (*International Mass Spectrometry Society*):
John Monaghan (Edinburgh)



IMMS (*Interntional Mass Spectrometry Society*):
Jan Vink (*Leiden*)



*IMMS (International Mass Spectrometry Society):
Jürgen Grotzmeyer (Kiel)*



*IMMS (International Mass Spectrometry Society):
Emilio Gelpi (Madrid)*



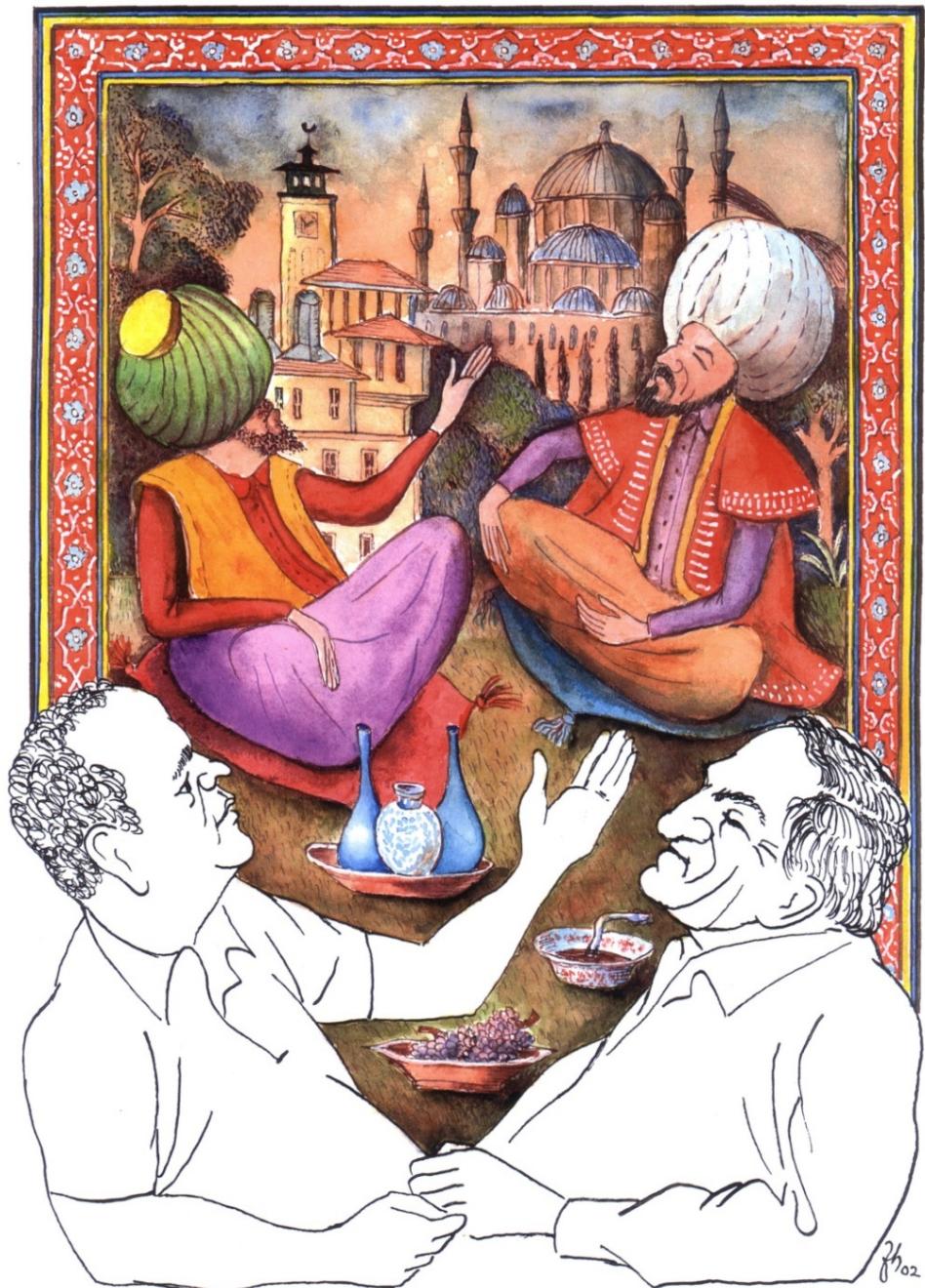
*IMMS (International Mass Spectrometry Society):
John Traeger (AUS)*



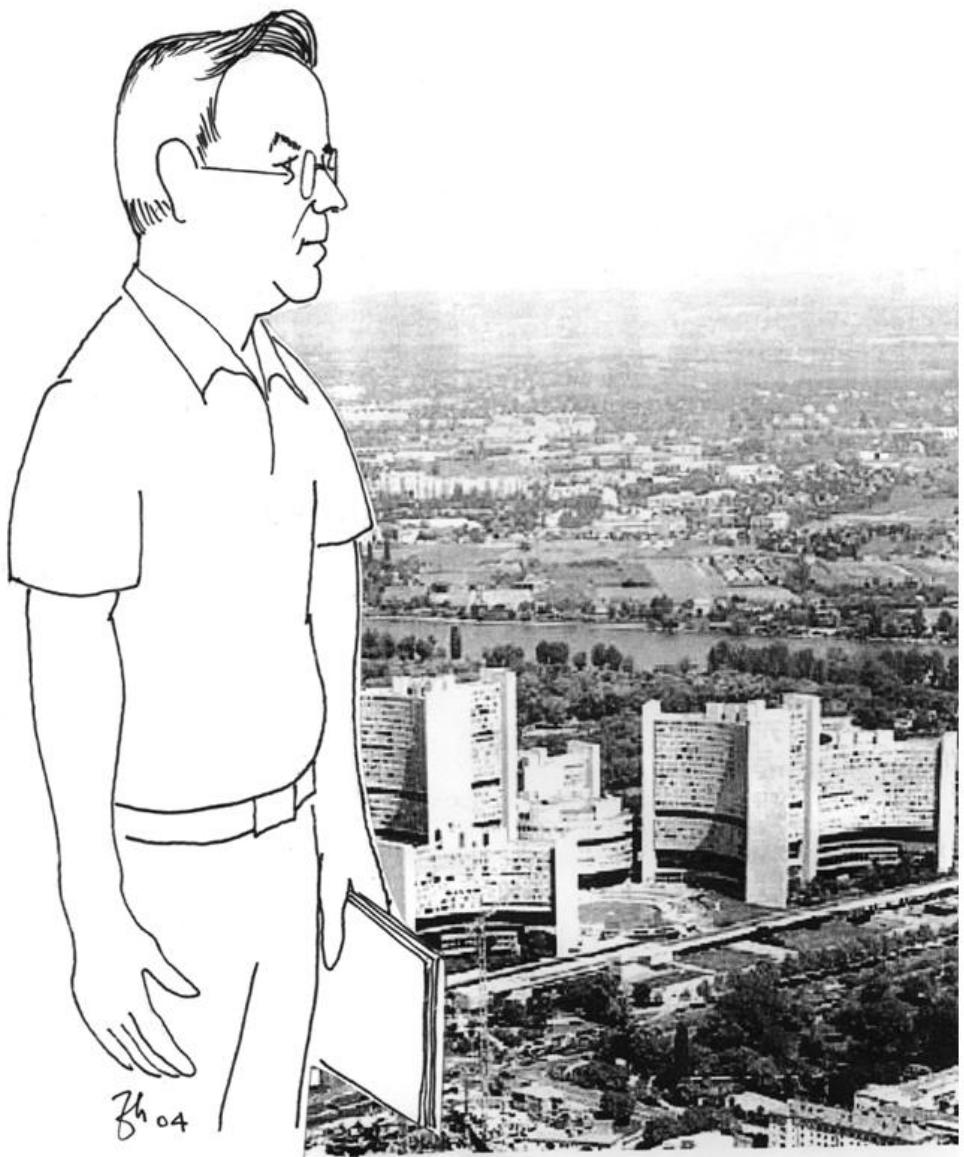
*IMMS (International Mass Spectrometry Society):
Johan Terlouw (NL-CND)*



Lutz Zülicke (Berlin) lecturing
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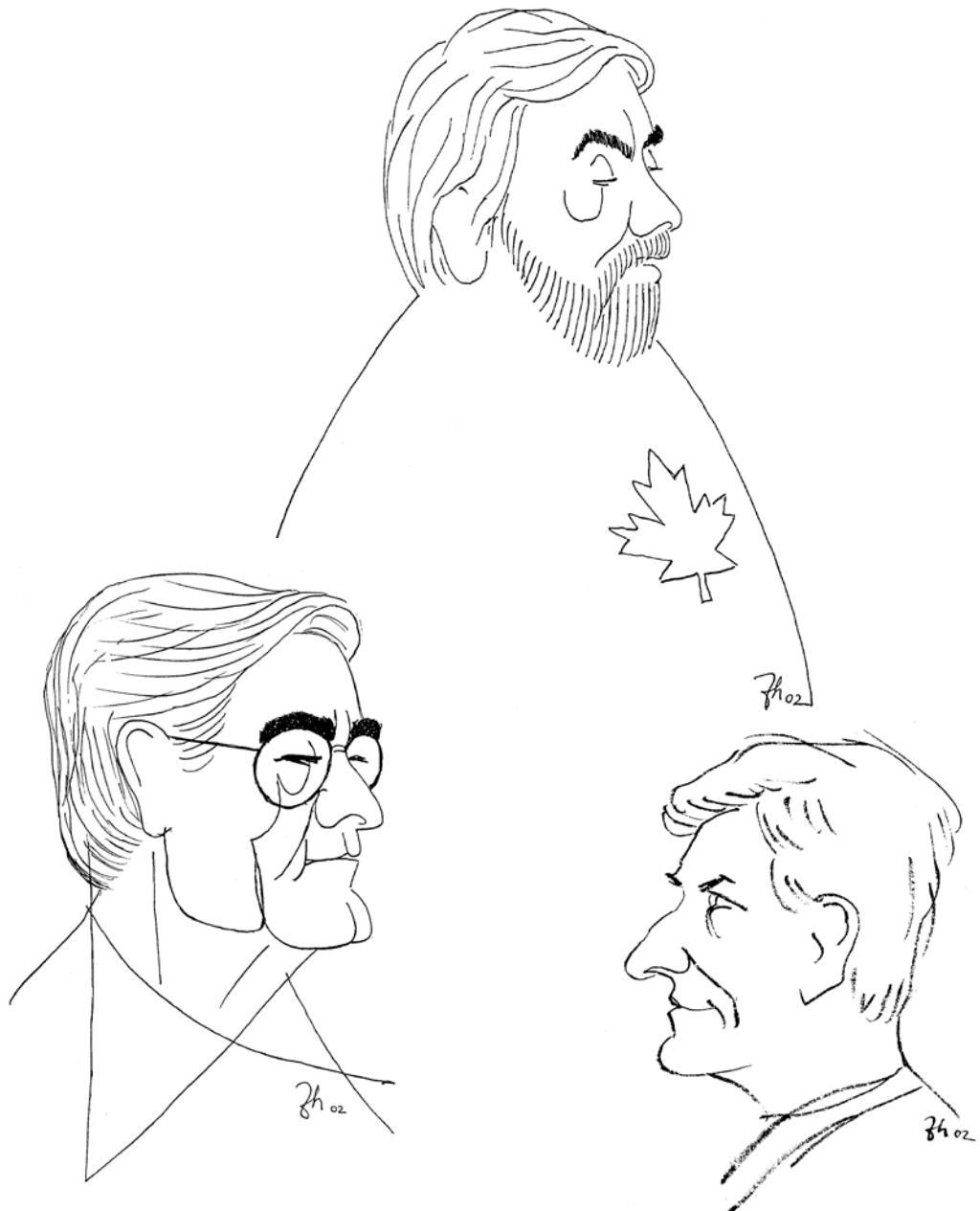
*Ersin Yurtsever and Attila Askar (Istanbul),
the organizers of the MOLEC 02*



Bob (R.E.H.) Clark, I.A.E.A. Vienna
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I.A.E.A. Vienna 2004: Pierre Defrance ((Louvain-la-Neuve), Štefan Matejčík (Bratislava), Ioan Schneider (Le Havre)



*People of SASP 2002, Going/Kitzbühl, Austria:
M.R. Flannery (Atlanta),
D.K. Böhme (Toronto, C.J. Latimer (Belfast),*

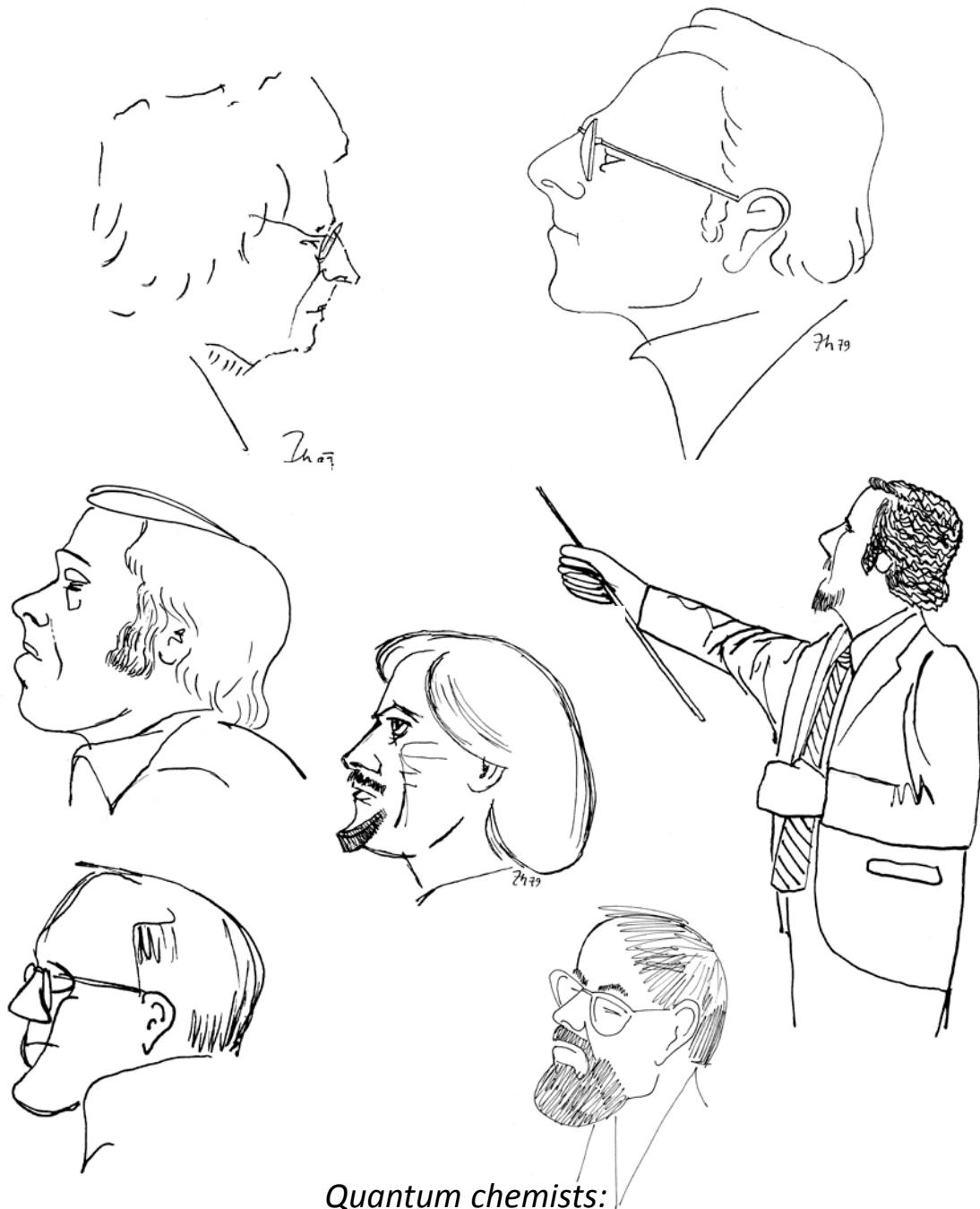


People of SASP 2002, Going-Kitzbühl, Austria:

- I. Dotan (Haifa), W.A. Brand (Jena), B. Farizon (Lyon), G. Von Helden (Nieuwegein), P. Defrance (Louvain), S.D. Price (London)



Advisory Board of the Czech EURATOM Association:
M. Tendler, M. Endler, G. Van Oost, C. Hidelgo, J. Linke,
M. Valovic, HP.Winter, J. Stöckel, Y. Peysson



Quantum chemists:

*S. Peyerimhoff (Bonn), W. Kutzelnigg (Bochum), R. Ahlrichs,
Karsruhe), H. Lischka (Wien), C. Weiss (Leipzig), W. Jakubetz (Wien),
L. Zülicke (Berlin)*



The CARNET EU Network 1994-1999:

*K.-H. Hoffmann (Chemnitz), B. Andresen (Copenhagen),
L. Diosi (Budapest) R. Mrugala (Torun), Alex De Vos (Gent),
P. Landsberg (Southampton), H. Farkas (Budapest),
B.A. Månsson, (Karlstad), S. Sieniutycz (Warsaw)*



*NATO Reaction Dynamics Meeting, Balatonföldvár, 2003:
Evgenii Nikitin (Haifa), Antonio Laganá (Perugia), Danko
Bosanac (Zagreb), Gunnar Nyman (Göteborg), Enzo Aquilanti
(Perugia), M. V. Basilevsky (Moscow), U. Manthe (München)*

III.

THE UNITED STATES

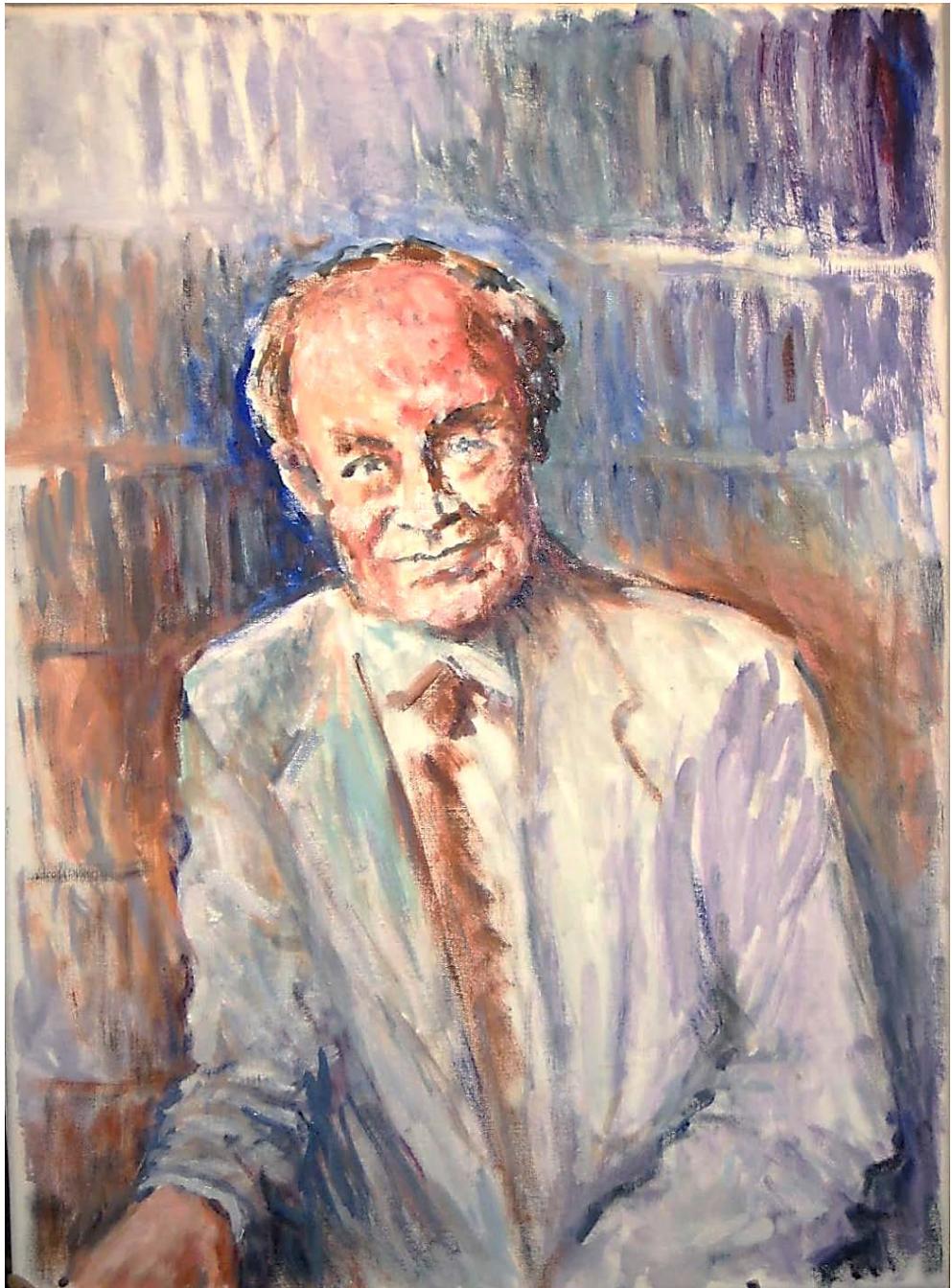
III. THE UNITED STATES

1. Dudley Herschbach (Harvard) in the center of mass , ink & collage, 1994
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3. Alex Dalgarno (Harvard) skiing in Austria , ink, 1986
4. Bill Klemperer (Harvard) chairing a session , brush ink drawing, 2001
5. Steve Berry, Chicago , pencil , 1993
6. Prof. R.S. Berry, bust – plaster, 1993
6. Steve Berry's office tidied up by his faithful subjects, ink, 1993
7. Ugo Fano , (1912 – 2001),Chicago , pencil, 1993
8. Ugo Fano, Chicago, pencil, 1993
9. Prof. Ugo Fano, bust – plaster, 1989
10. Yuan T. Lee A.D. 1972 (Chicago), ink, 1993
11. Yuan T. Lee, A.D. 1998 (Berkeley) ink, 1998
12. Mostafa El-Sayed (Los Angeles and Atlanta), Mr. JPC, ink & collage, 2005
13. John Fenn (1917-2010), Yale and Virginia, ink, 2010
14. Joe L. Franklin (1906-1982), Rice U., ink drawing, 2010
15. Frank H. Field (1922-2013), Rockefeller U. ink, 2010
16. Fred W. Lampe 1927-2000), Penn State, ink, 2010
17. Henry M. Rosenstock (1928-1982) NBS, ink & collage, 2010
18. Fred McLafferty, Cornell , ink drawing, 2009
19. William A. Chupka (1923-2007), Argonne and Yale, ink, 2010
20. Joe Berkowitz, Argonne , ink drawing, 1989
21. Mitio Inokuti (Argonne) at home , ink drawing, 2002
22. Aron Kuppermann, Caltech, ink, 2005
23. Jack Beauchamo, Caltech, ink & collage, 2010
24. Jean Futrell, PNNL, ink, 2004
25. Prof. J. H. Futrell, oil on canvas, 45x60, 2014
26. Mike Henchman, Brandeis, ink, 1980
27. Prof. M. J. Hechman, bust – plaster, 1989
28. John Brauman (Stanford) in the double well , ink, 1996
29. Paul Kebarle, Edmonton, ink & collage, 2009

- 29. Bill Miller (Berkeley) lecturing, ink, 1994
- 30. Graham Cooks, Purdue , ink drawing, 2001
- 31. The Research Director (Graham Cooks) , ink drawing, 2003
- 32 Jim Cross, Yale, ink, 2010
- 33. Mike Bowers , Santa Barbara, California, ink, 2009
- 34. Mike Gross, St. Louis, ink, 2009
- 35. Alan Marshall, Florida State, brush drawing, 2009
- 36. Ed Grant, U. of British Columbia , brusk drawing, 2011
- 37. František Tureček (Seattle) in 1976 and after thirty years, ink, 2011
- 38. Millard Alexander (Maryland) deep in the Balaton Lake, ink & collage, 2003
- 39. Peter Armentrout, U. of Utah, ink, 2009
- 40. John Tully, Bell Labs and Yale, ink, 2009
- 41 . People at the Gordon Conference 1980: K. Kuchitsu, Jean Durup, A.C. Wahl, K. Morokuma, R. B. Bernstein, ink , 1980



Dudley Herschbach (Harvard) in the center of mass
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Prof. Dudley Herschbach , 2014

OMNIA MIRANT STELLA



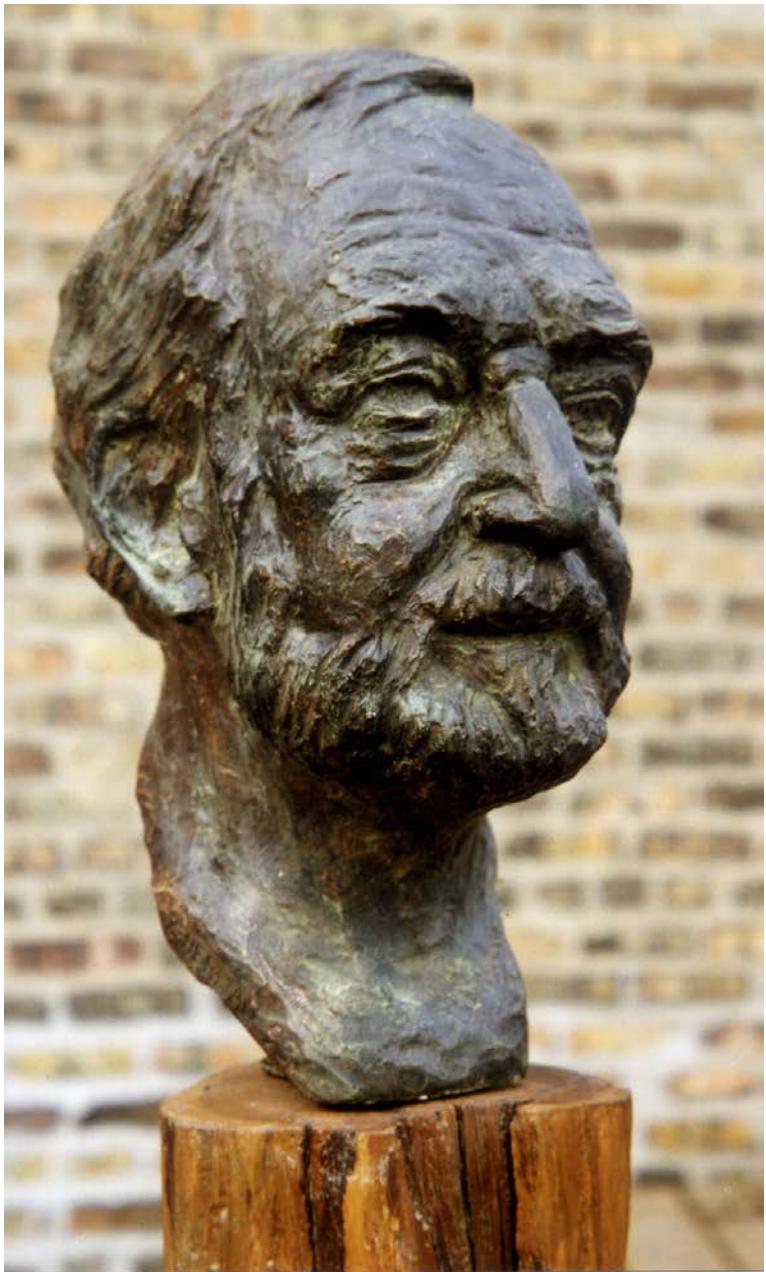
Alex Dalgarno (Harvard) skiing in Austria
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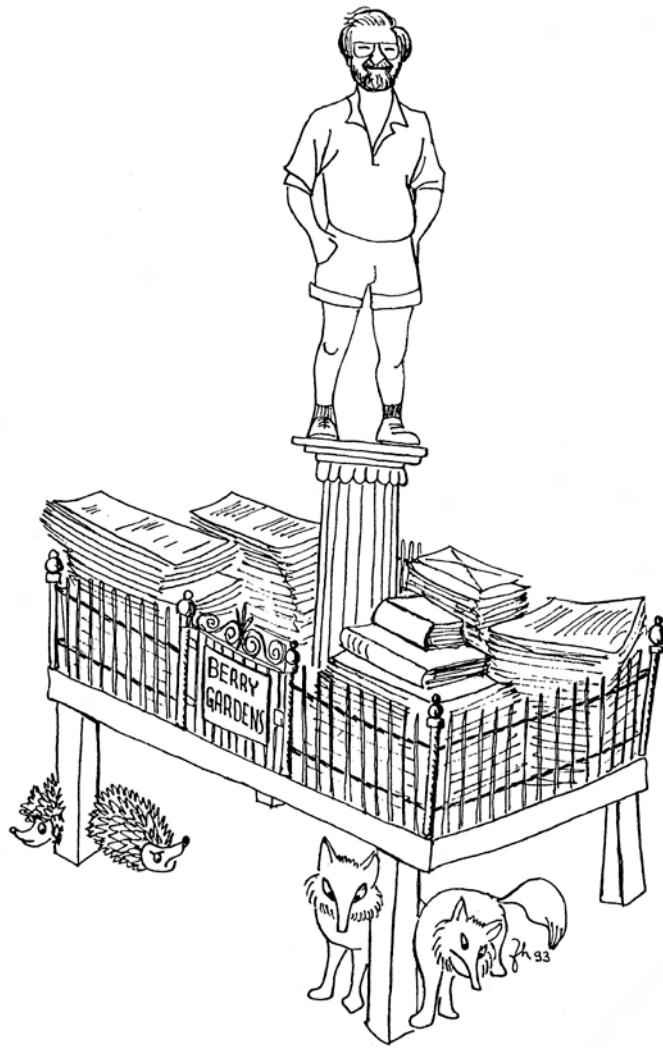
Bill Klempner (1927-2017, Harvard) chairing a session



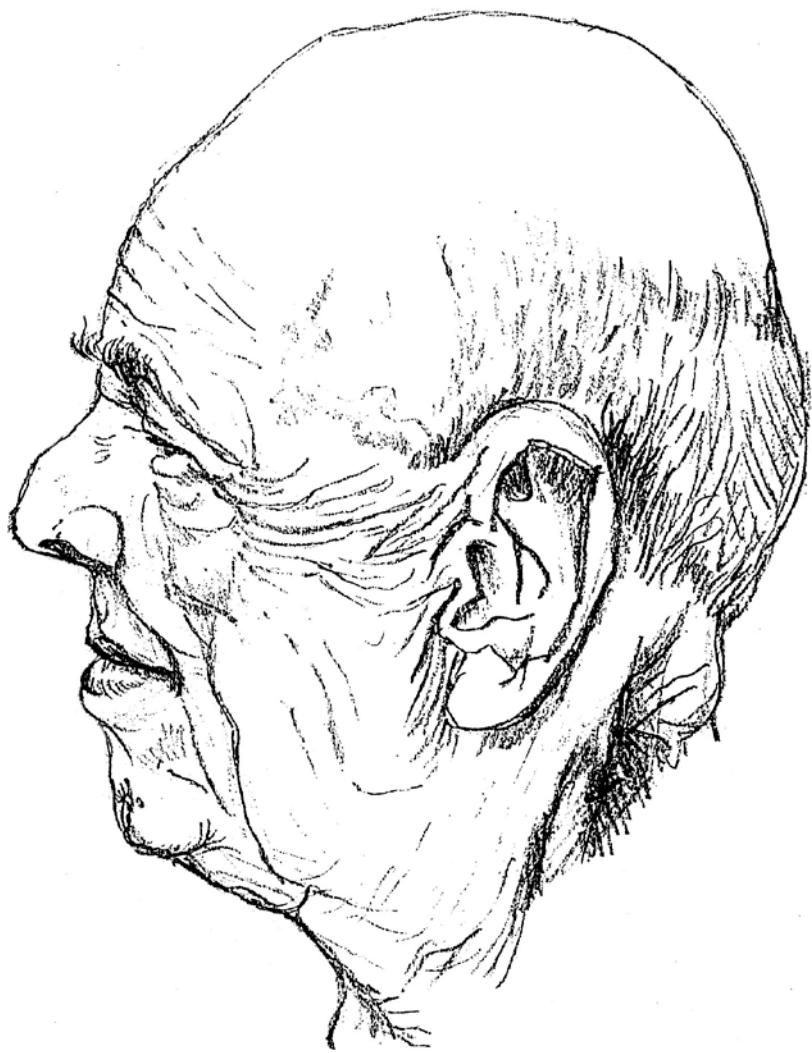
Steve Berry, Chicago



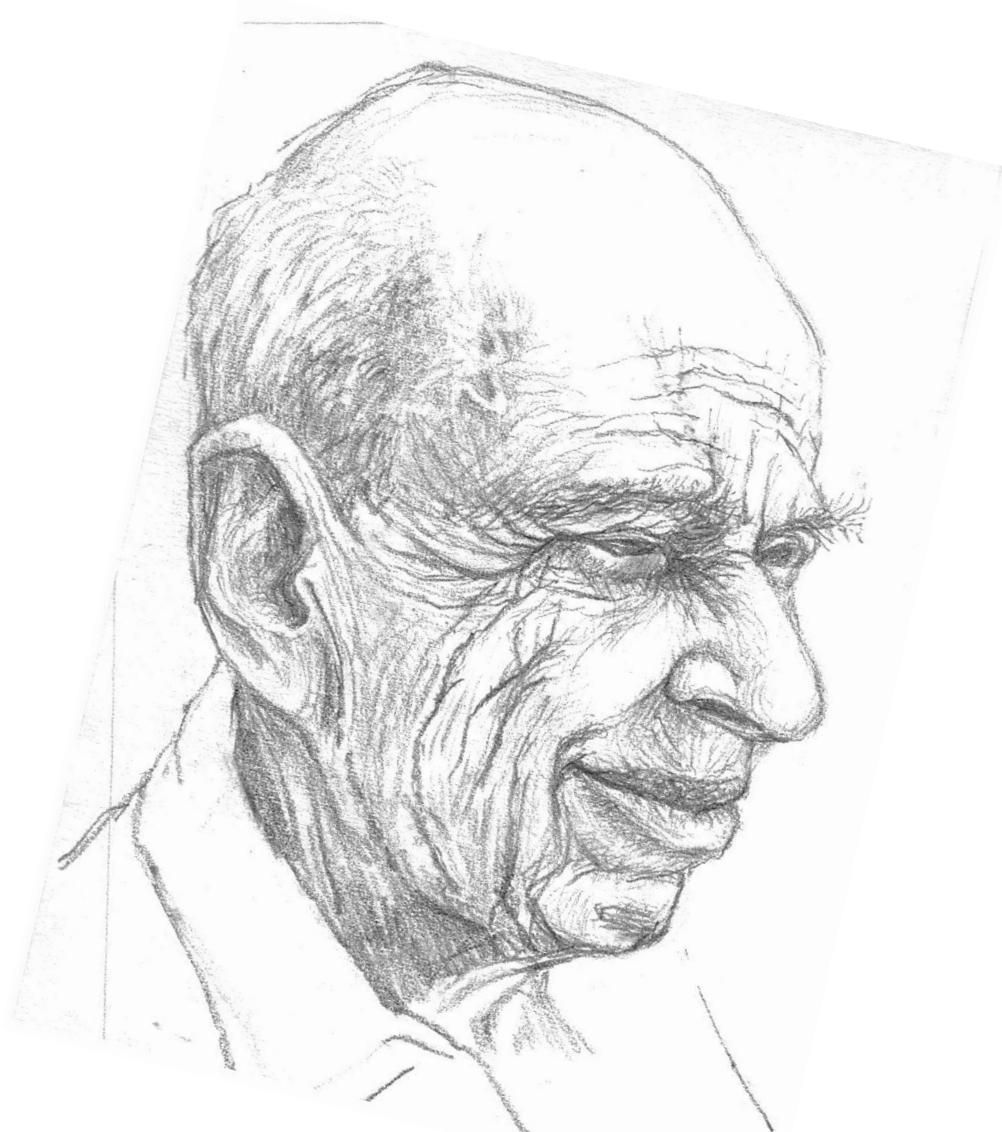
Prof. R.S. Berry, 1993



Steve Berry's office tidied up by his faithful subjects



Ugo Fano (1912 – 2001), Chicago



Ugo Fano (1912 – 2001), Chicago

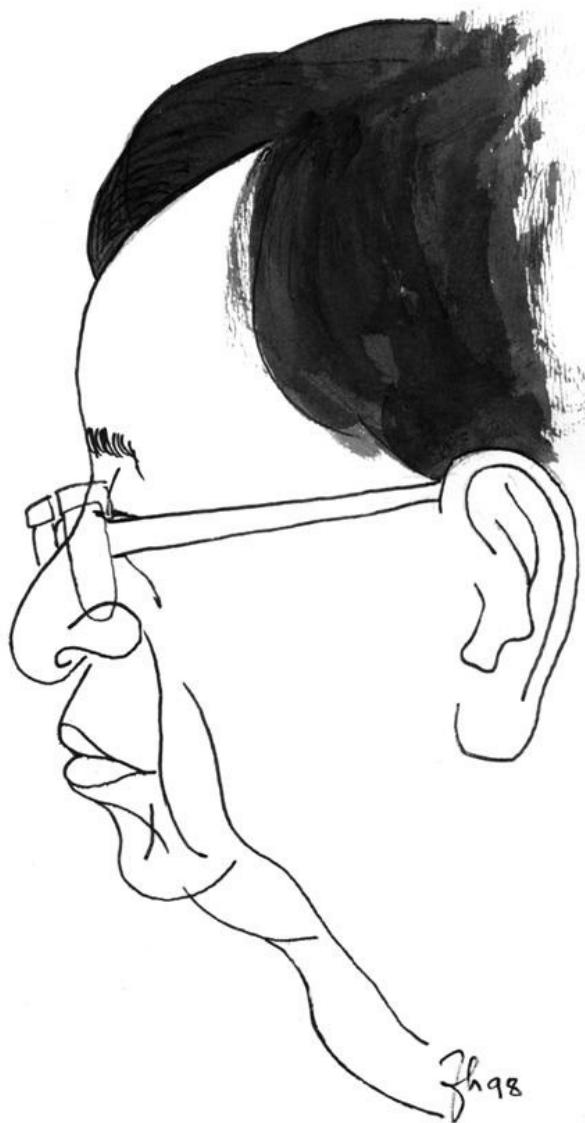


Prof. Ugo Fano , 1989

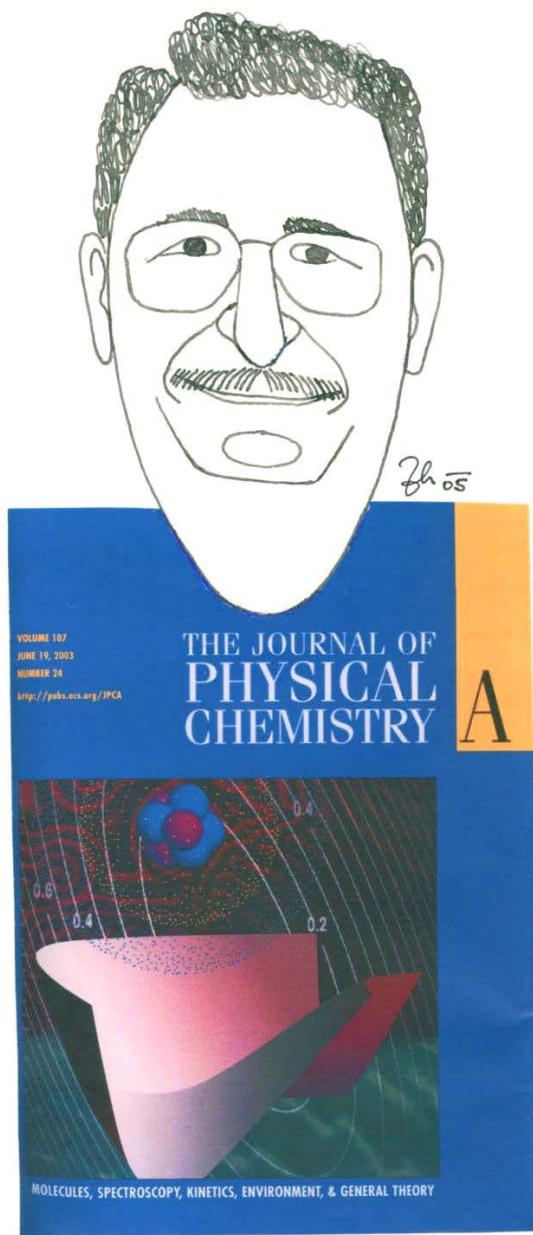
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Yuan T. Lee A.D. 1972 (Chicago)



Yuan T. Lee, A.D. 1998 (Berkeley)



Mostafa El-Sayed (Los Angeles and Atlanta), Mr. JPC



John Fenn (1917-2010), Yale and Virginia



Joe L. Franklin (1906-1982), Rice U.



Frank H. Field (1922-2013), Rockefeller U.



Fred W. Lampe (1927-2000), Penn State
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VOL. 38, 1952

CHEMISTRY: ROSENSTOCK, ET AL.

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**ABSOLUTE RATE THEORY FOR ISOLATED SYSTEMS AND THE
MASS SPECTRA OF POLYATOMIC MOLECULES***

BY H. M. ROSENSTOCK, † M. B. WALLENSTEIN, ‡ A. L. WAHRHAFTIG AND
HENRY EYRING

CHEMISTRY DEPARTMENT, UNIVERSITY OF UTAH

Communicated June 25, 1952

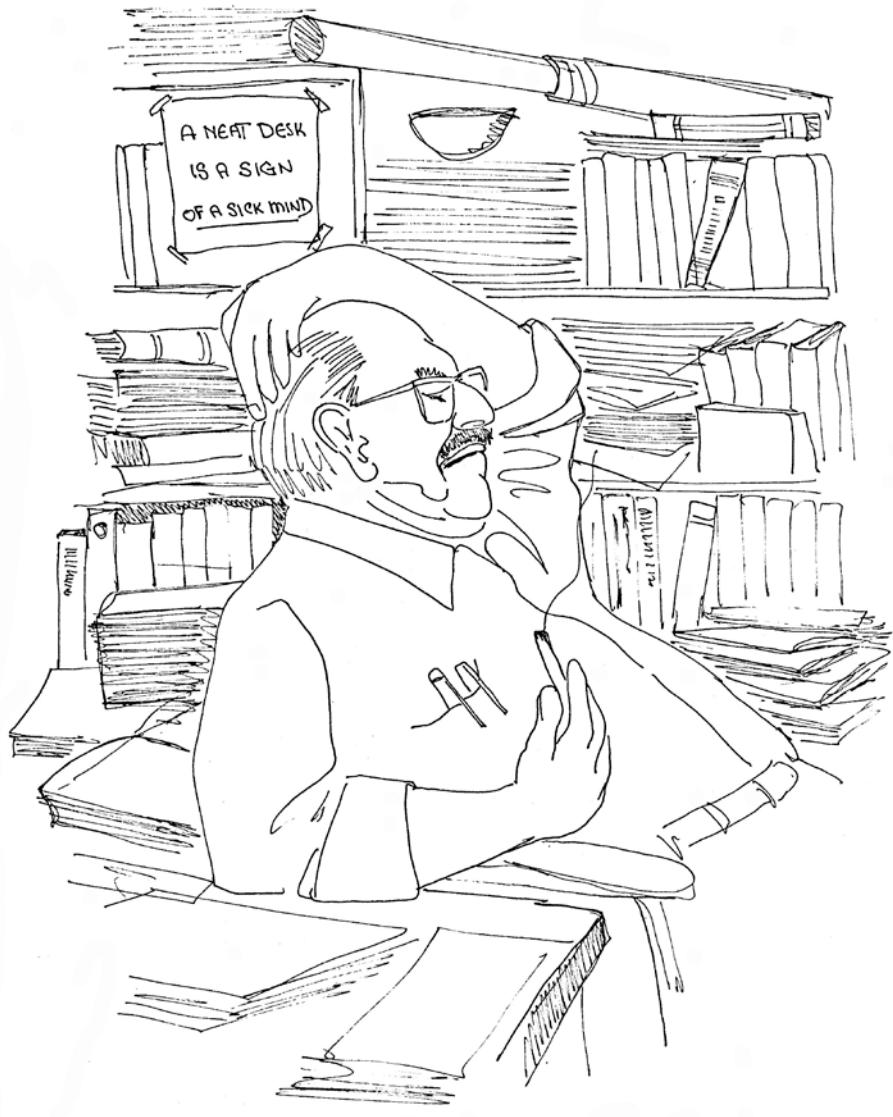
Henry M. Rosenstock (1928-1982) NBS



Fred McLafferty, Cornell



William A. Chupka (1923-2007), Argonne and Yale
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Joe Berkowitz, Argonne

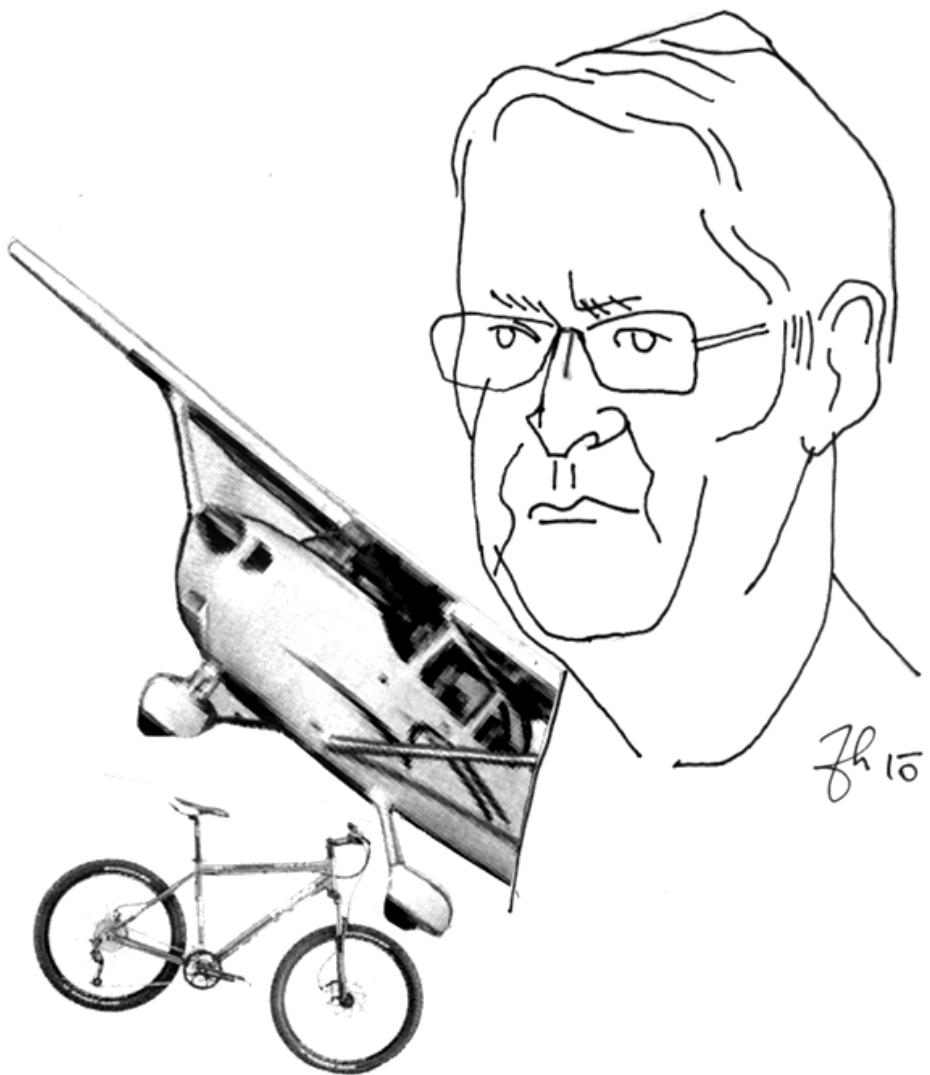


Zhu
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Mitio Inokuti (Argonne) at home



Aron Kuppermann, Caltech
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Jack Beauchamp, Caltech
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Jean Futrell, PNNL



Prof. J.H. Futrell, 2014

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Michael Henchman, Brandeis



Prof. M.J. Henchman, 1989



John Brauman (Stanford) in the double well

specify one is to calc.

ation reactions of water and me



ed to know the proton affinities of water and methanol, the ionization energies of OH and CH₃O, and the bond dissociation energies of H₂O (H—O) and CH₃O (C—O) and DCH₃O—H. The energy changes for reactions (24) and (25) are instructive. It is found that reaction (25) is about 20 kcal/mole more exothermic than reaction (24), which shows that methanol is



graphically how this strong solvent effect develops. They show the gradual change in the protonation reactions



(26)

Since the gas-phase ion solvation results described in Section 6.4 illustrate the standpoint of solution chemistry, the above plot, since liquid water is more dissociated than methanol, illustrates graphically how this strong solvent effect develops. They show the gradual change in the protonation reactions



(27)



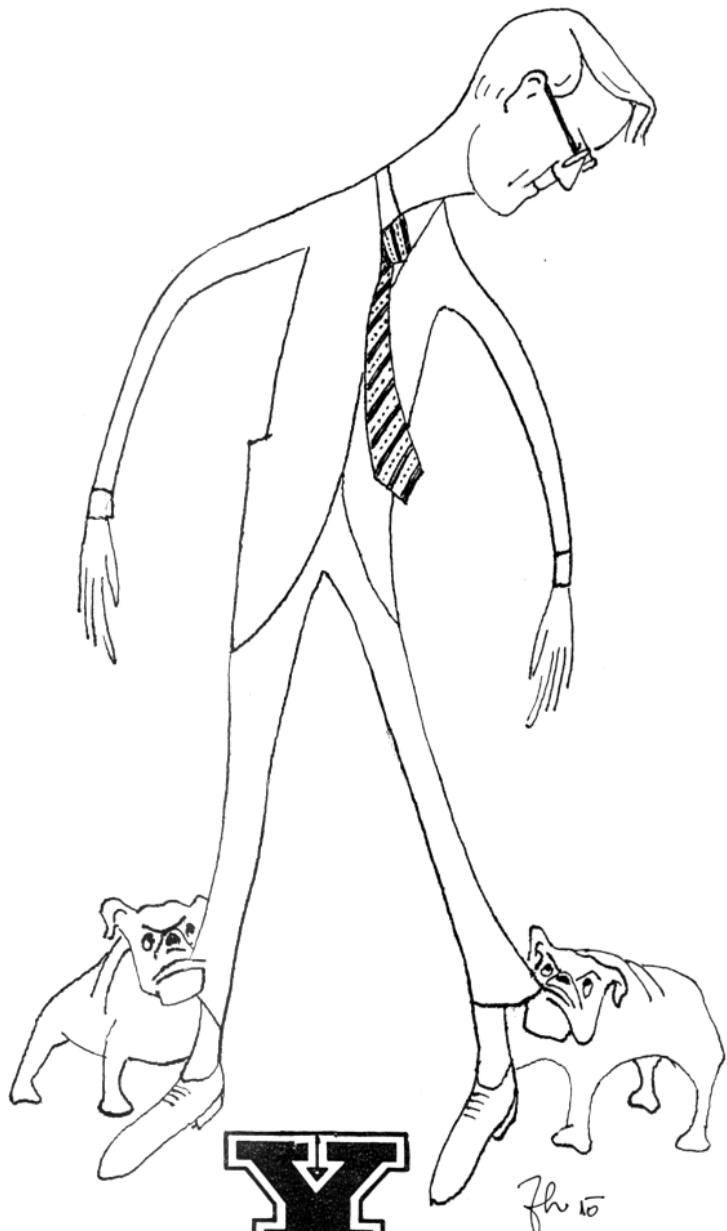
Bill Miller (Berkeley) lecturing



Graham Cooks, Purdue



The Research Director (Graham Cooks)



1966 - 2010

*Jim Cross, Yale
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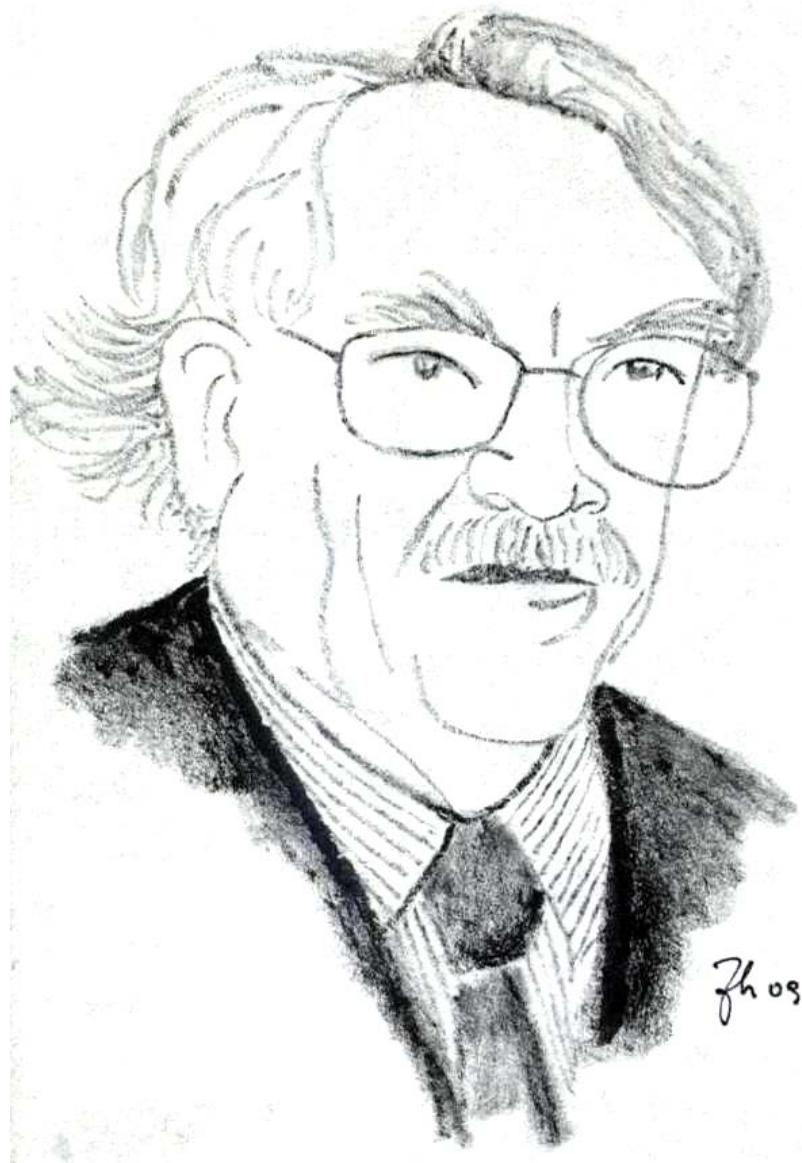


Mike Bowers , Santa Barbara, California



Michael Gross, St. Louis

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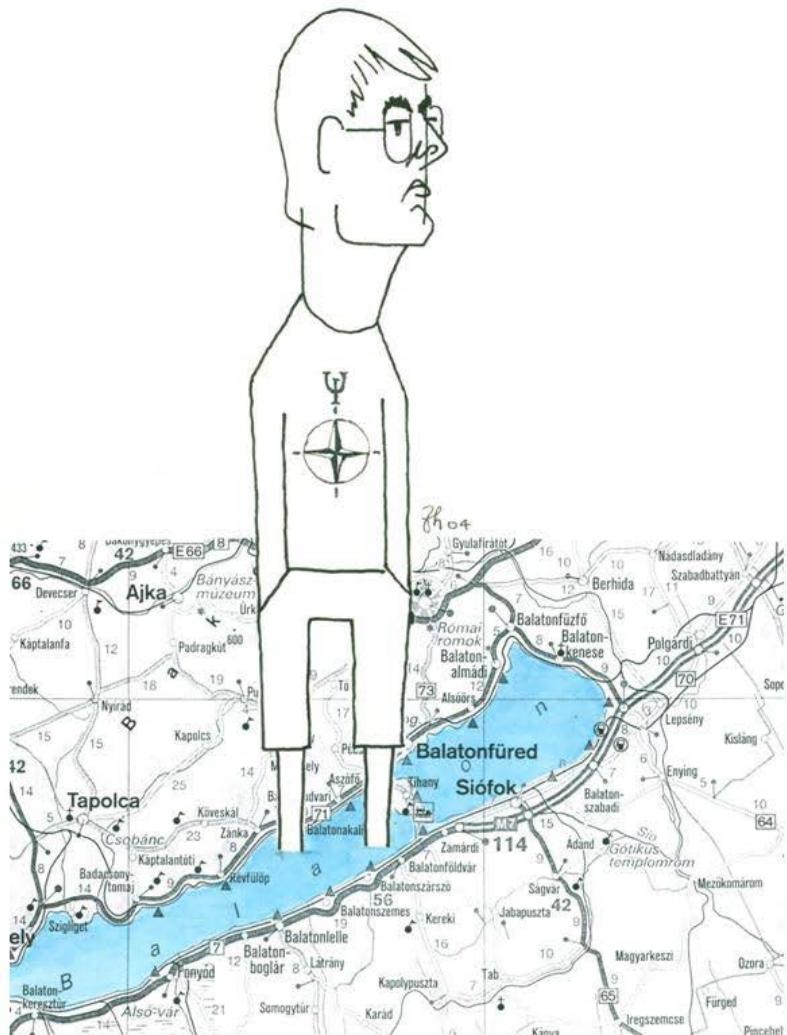
Alan Marshall, Florida State
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Ed Grant, U. of British Columbia



František Tureček (Seattle) in 1976 and after thirty years

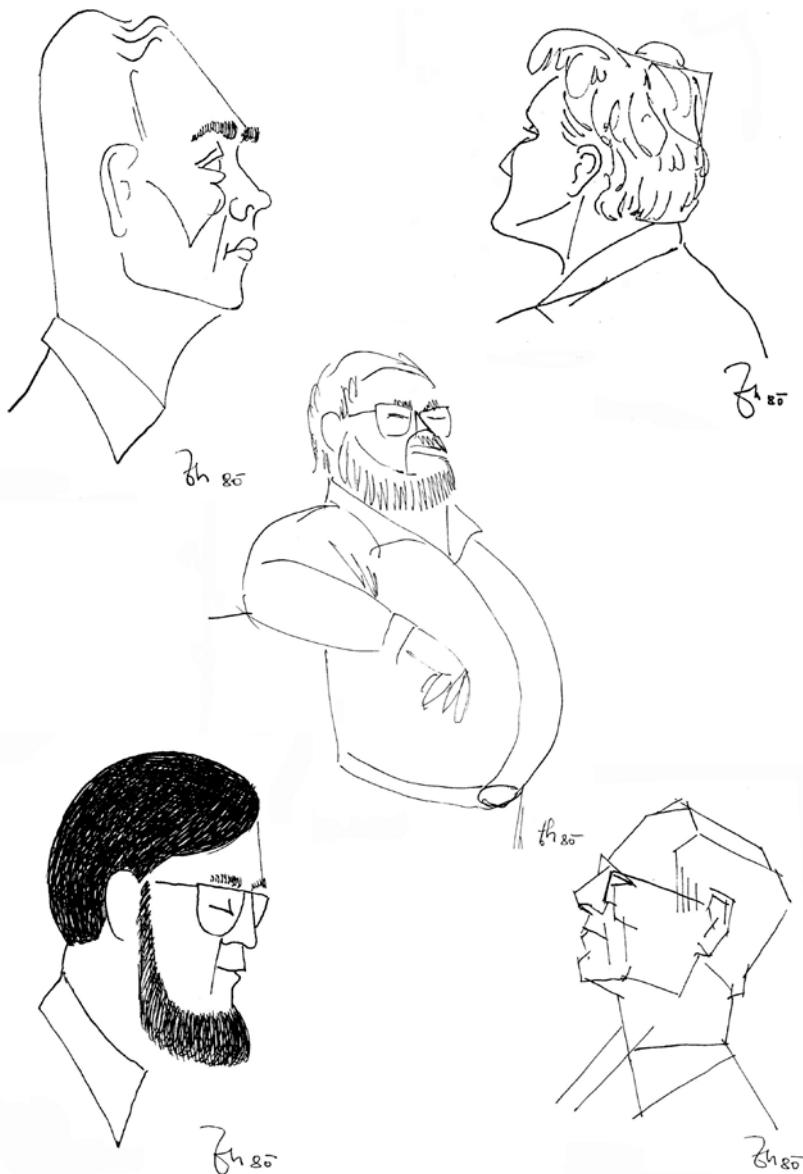




Peter Armentrout, U. of Utah



John Tully, Bell Labs and Yale
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*People at the Gordon Conference 1980:
K. Kuchitsu, Jean Durup, A.C. Wahl, K. Morokuma,
R. B. Bernstein*

IV.

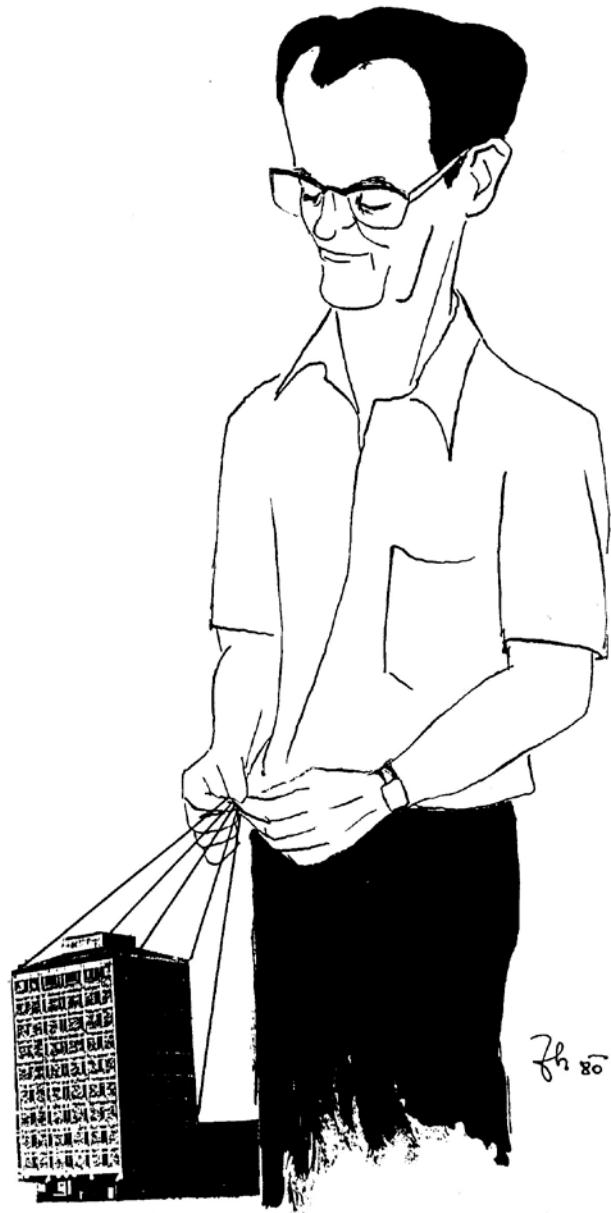
BOULDER: JOINT INSTITUTE FOR LABORATORY ASTROPHYSICS AND THE UNIVERSITY OF COLORADO

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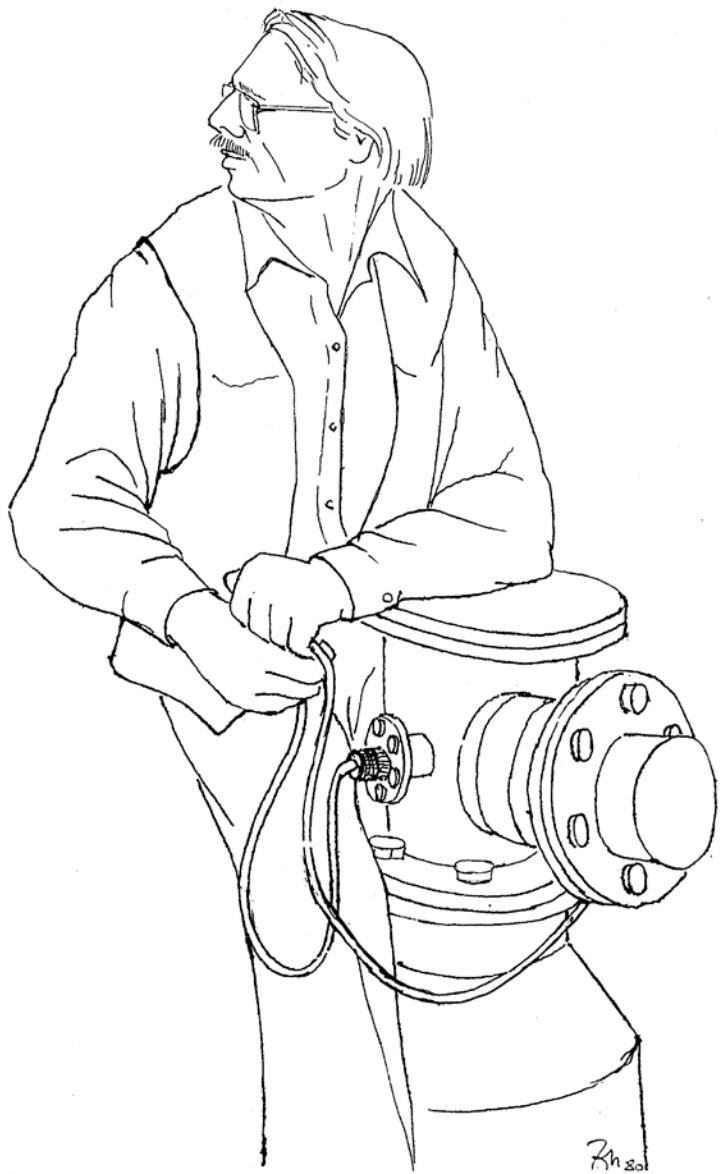
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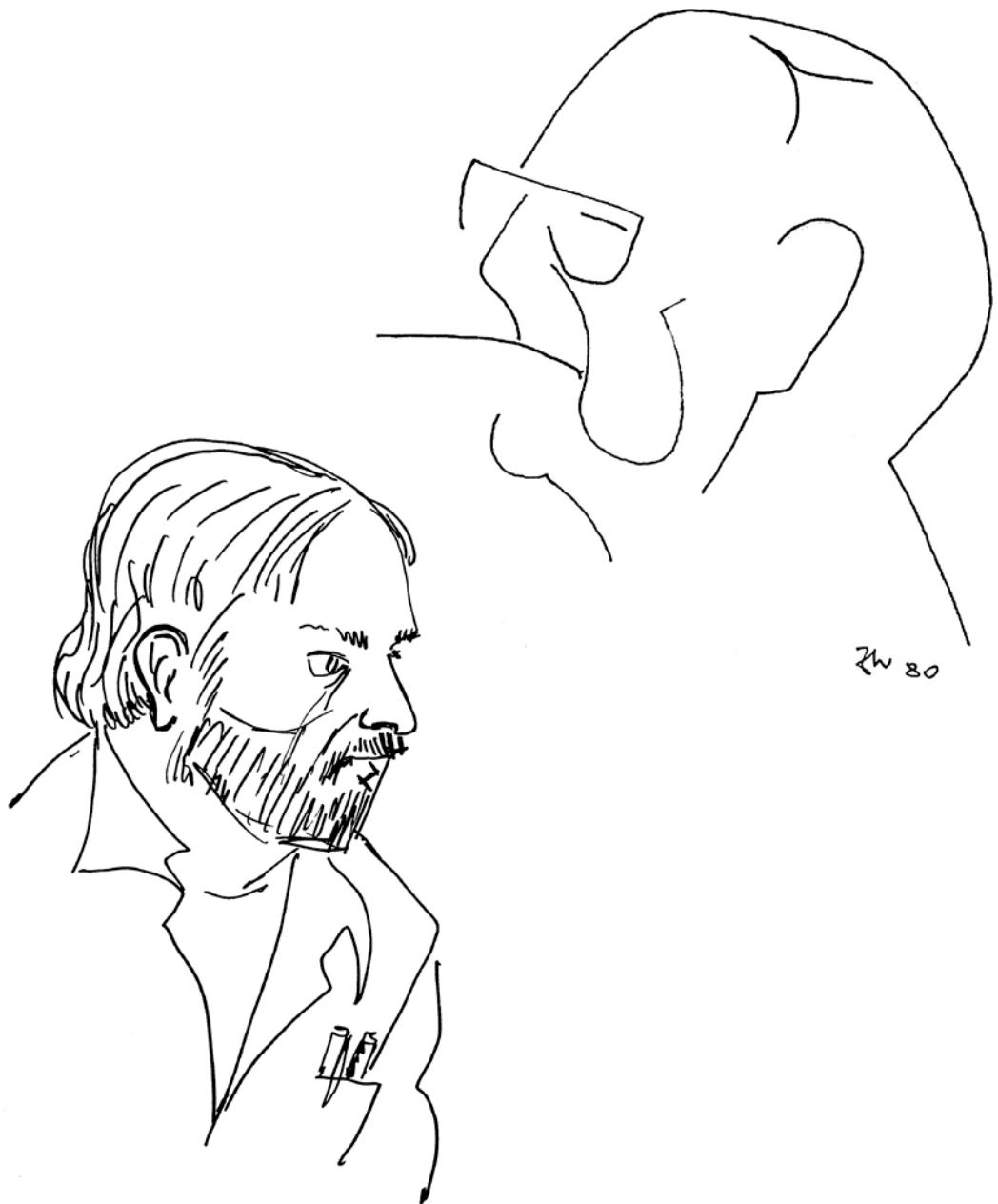
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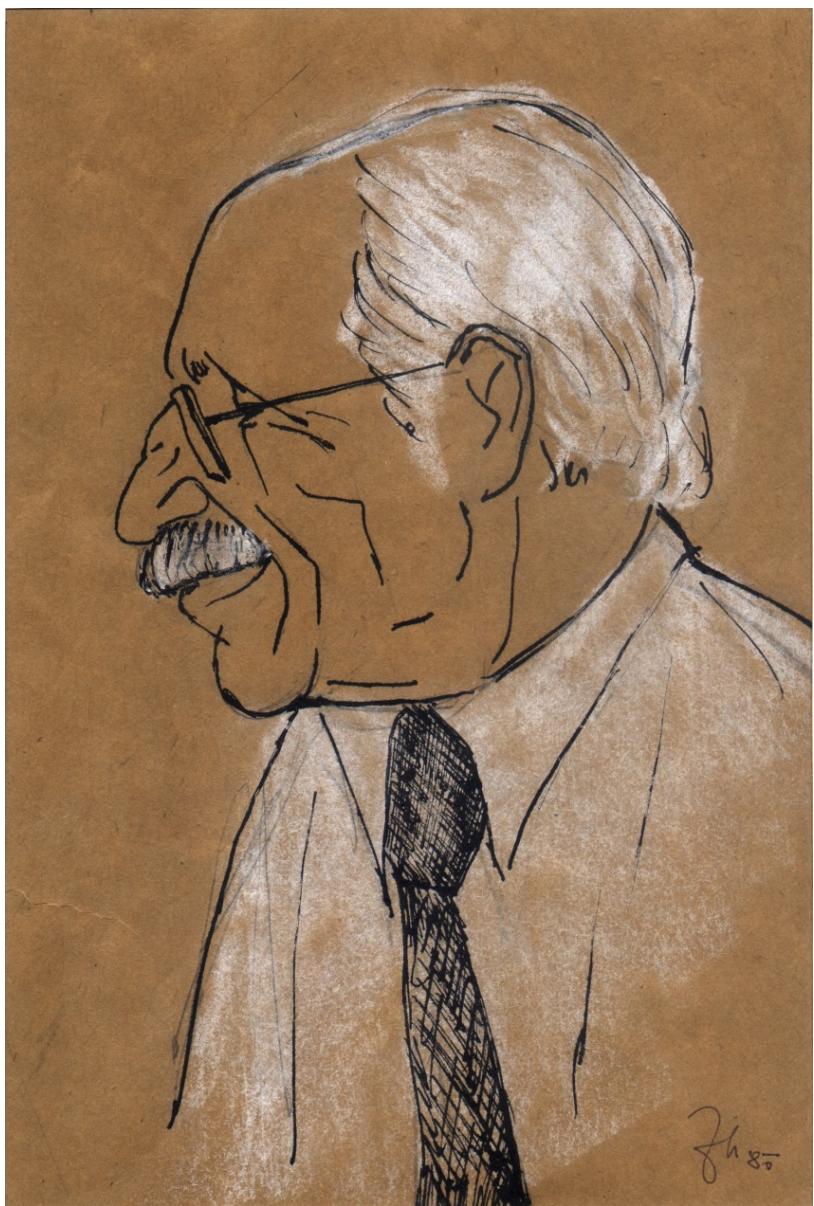
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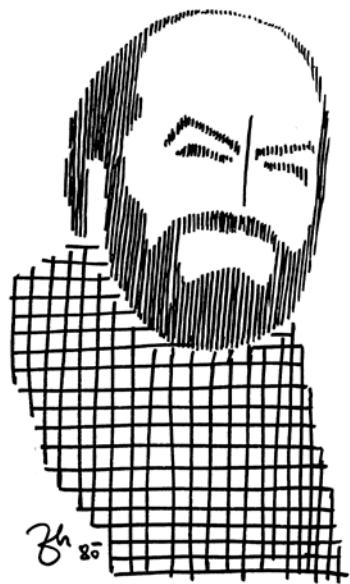
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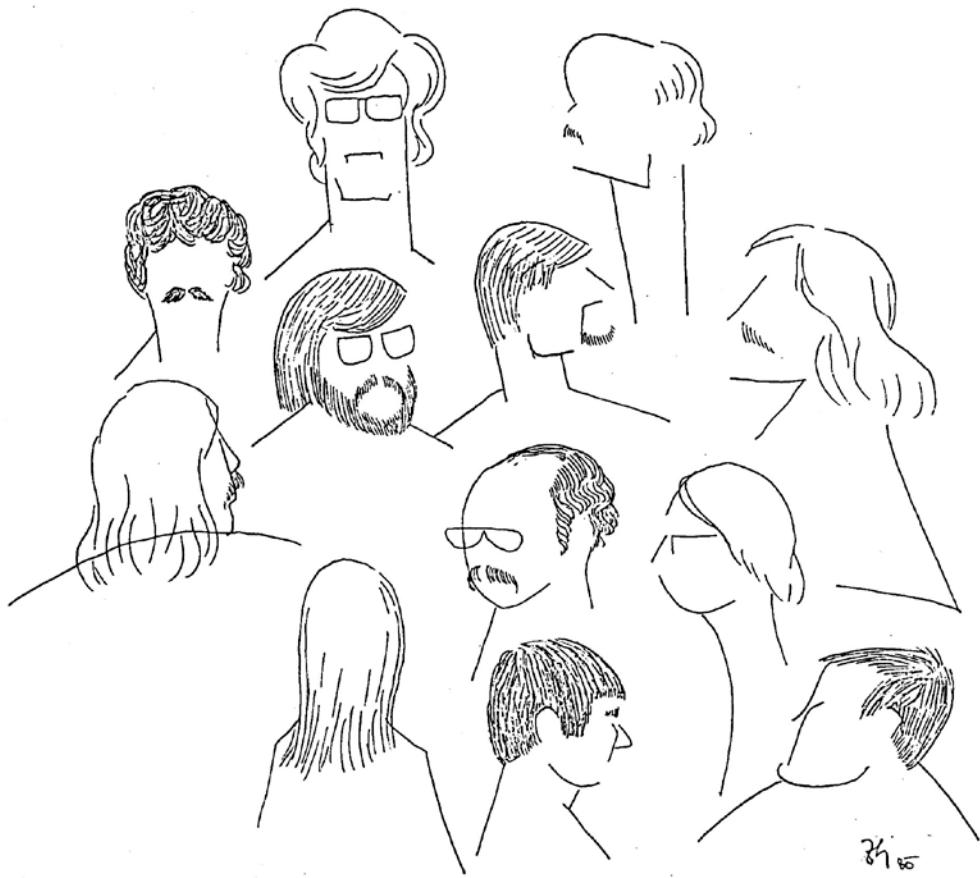
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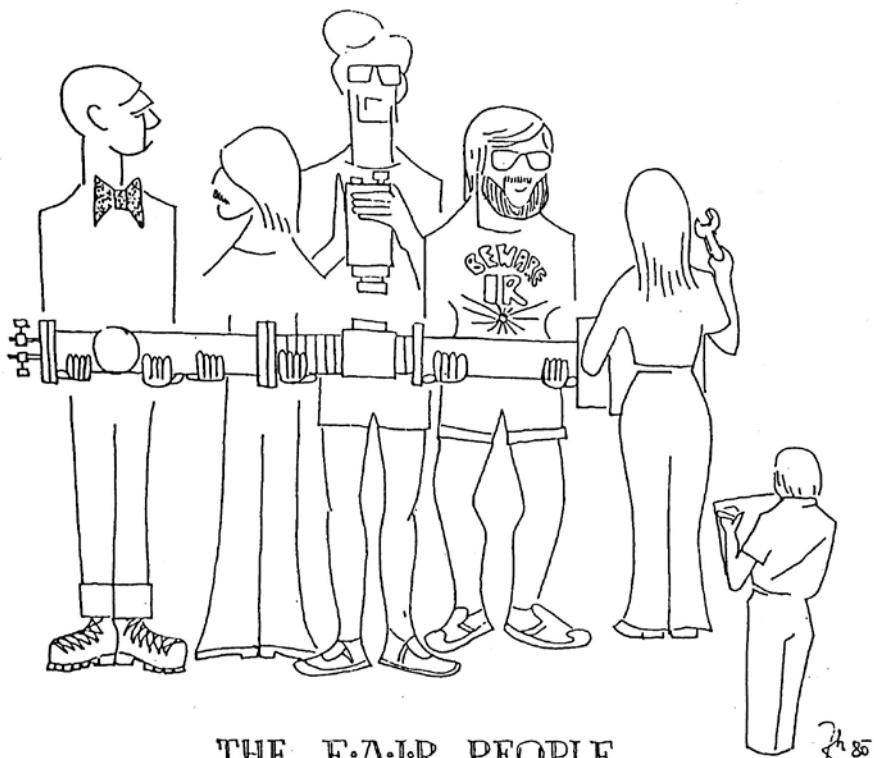
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*JILA 1980: Visiting Fellows:
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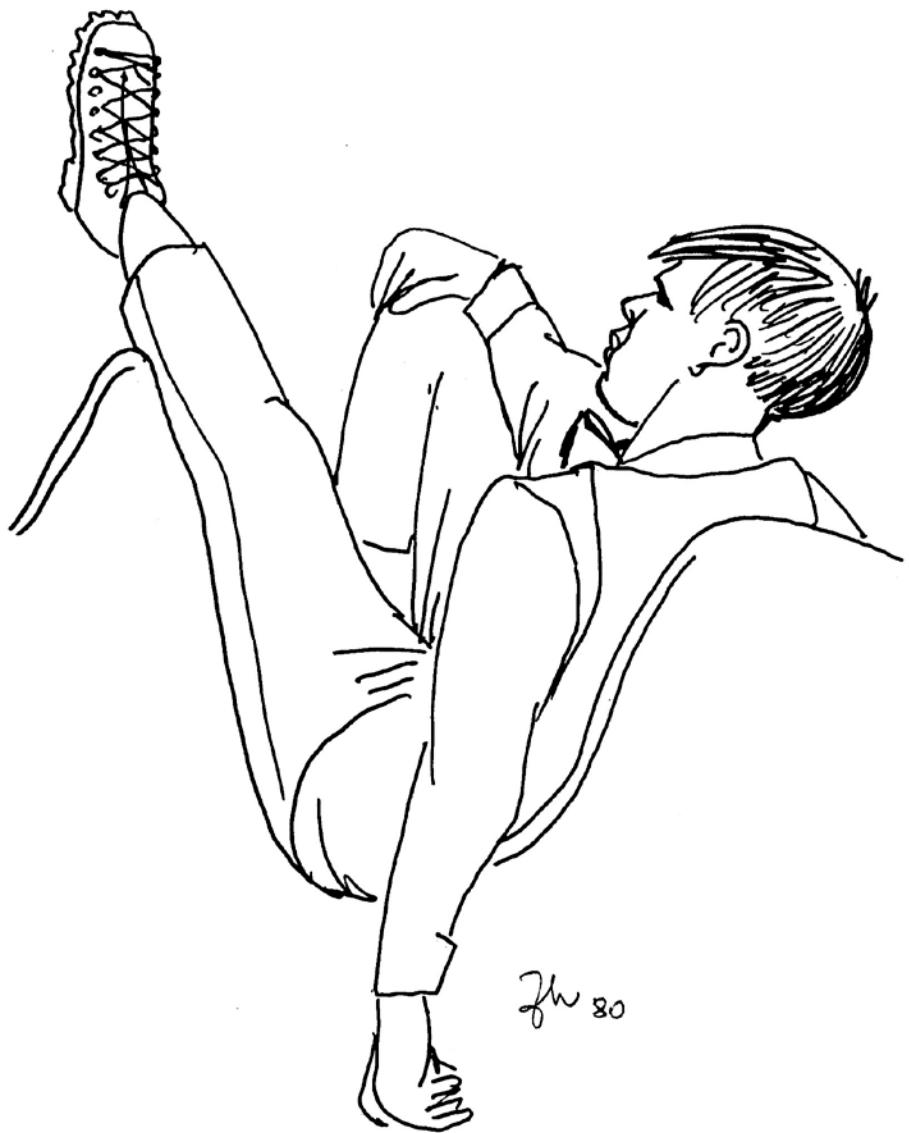


JILA 1980: Beards and hairs of Steve Leone's group.
(Tim Zwier, Terry Cool, Frank Magnotta, Jim Wiesshaar, Heinz Herrmann, Dean Guyer, Brook Koffend, Steve Leone, David Nesbitt, Veronica Bierbaum, Bill Pence, Steve Baughcum)

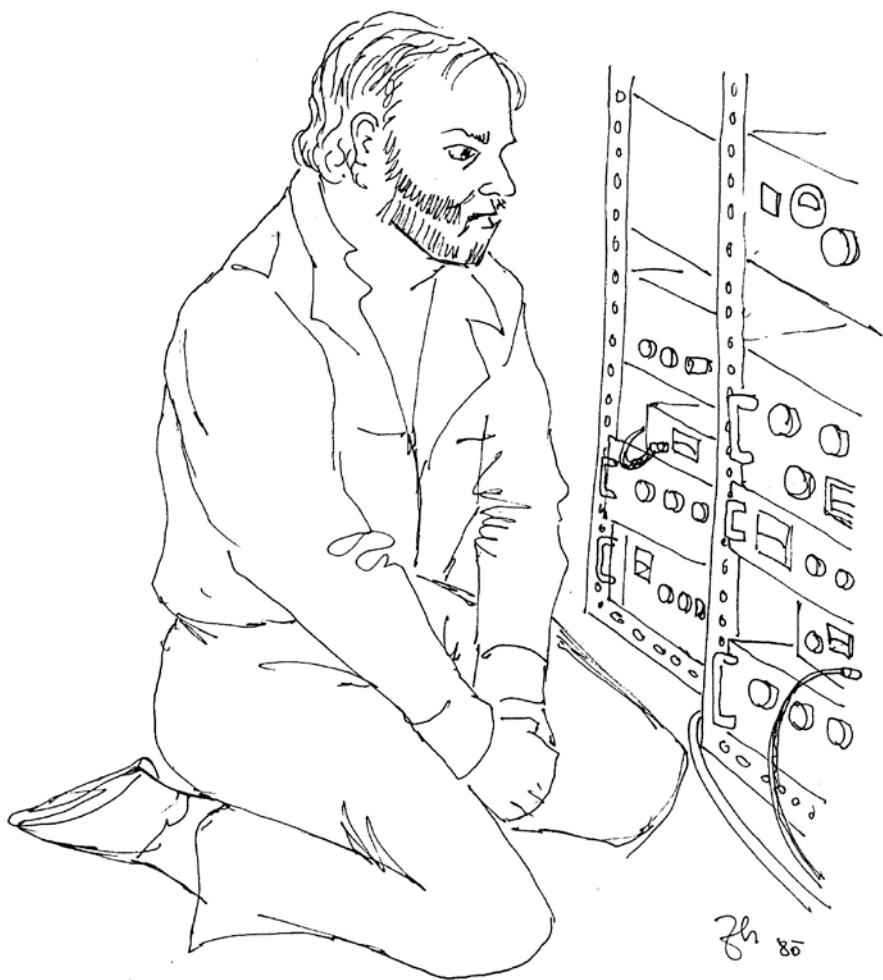


THE FAIR PEOPLE

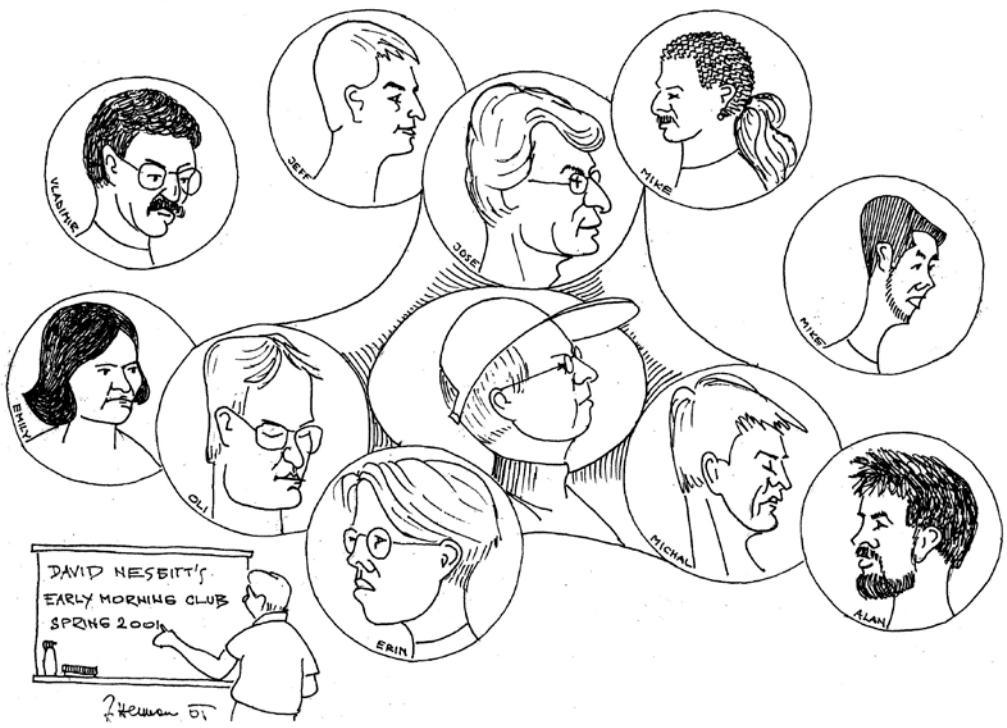
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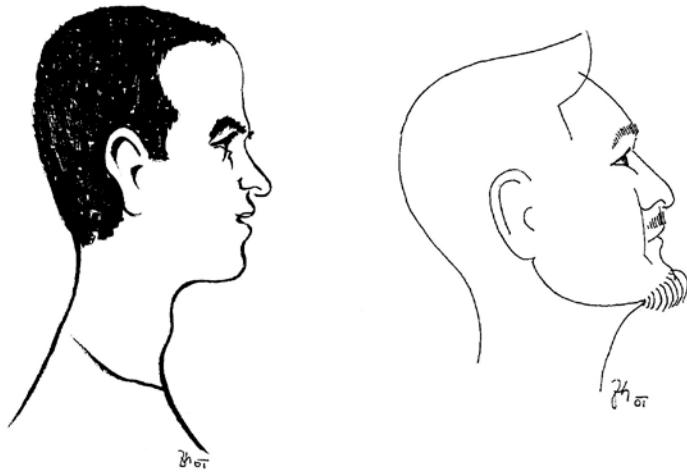
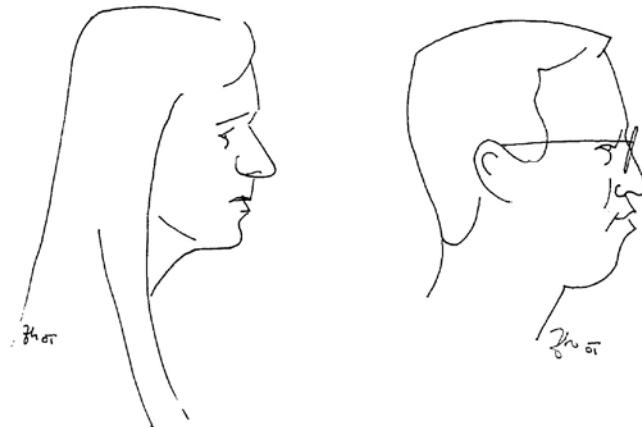
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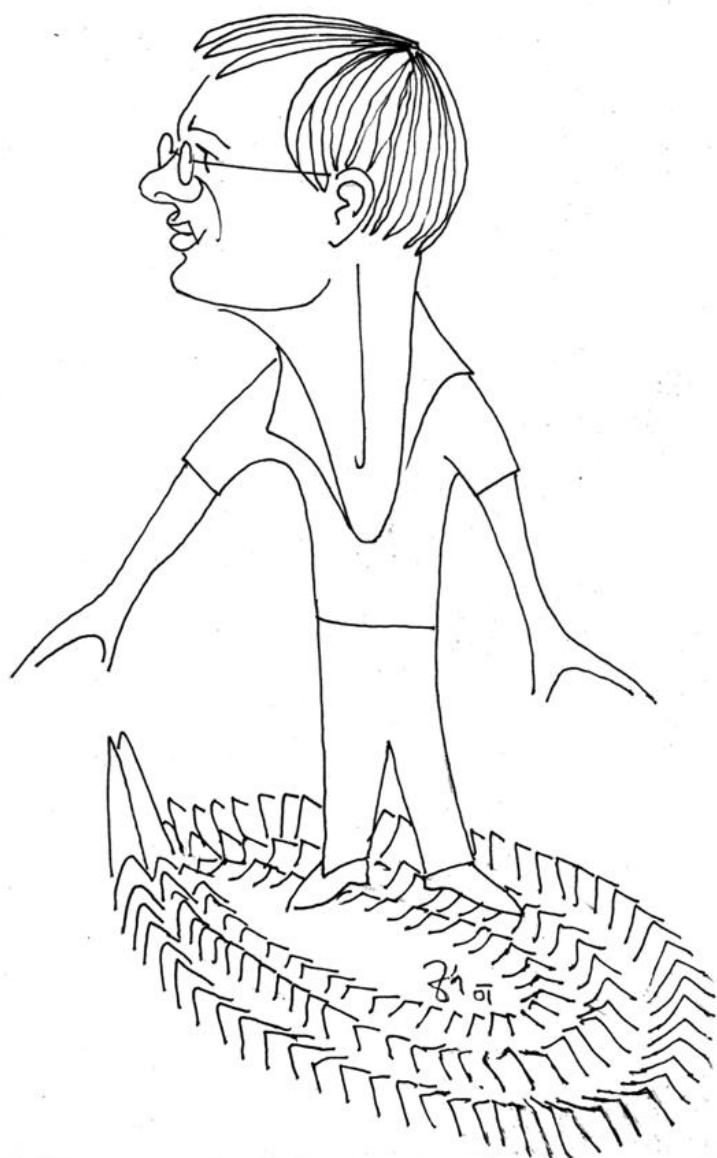
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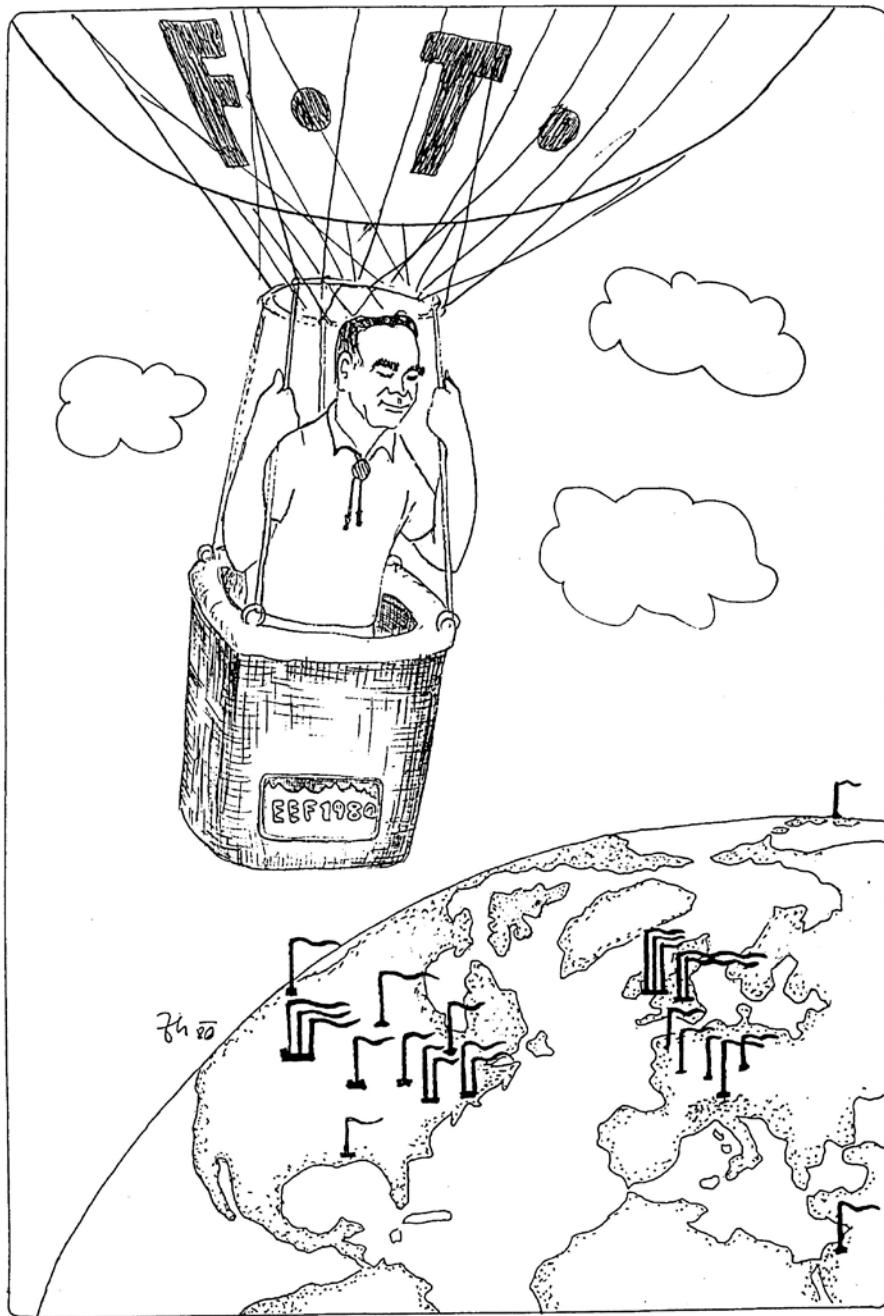
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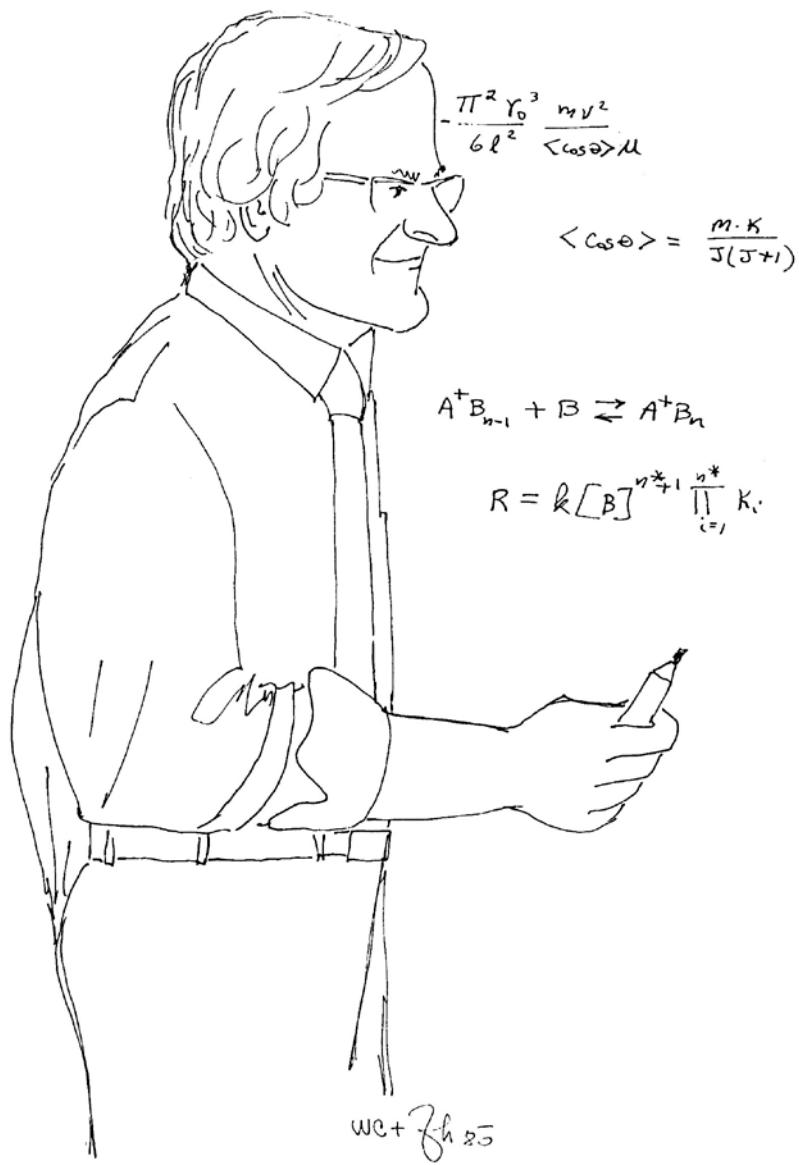
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CU – Chemistry 1980: Eldon Ferguson (1926-2017)



*CU – Chemistry 1980:
Eldon Ferguson watching the flow-tube centers*

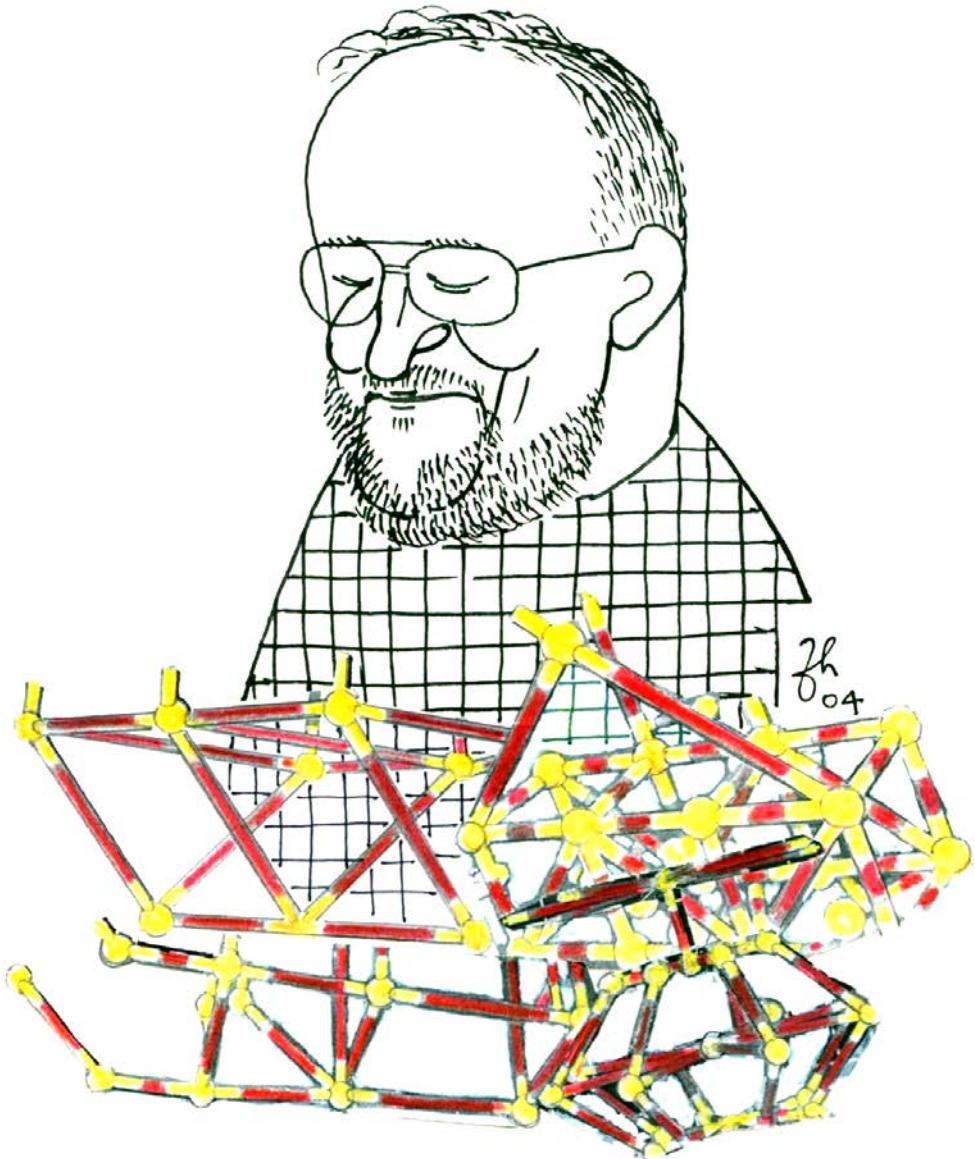


CU – Chemistry 1980: Will Castleman (1936-2017)



CU-Chemistry 1980:
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CU - Chemistry, 2001: Joe Michl



Prof. Stanley J. Cristol (1916-2008), 2001

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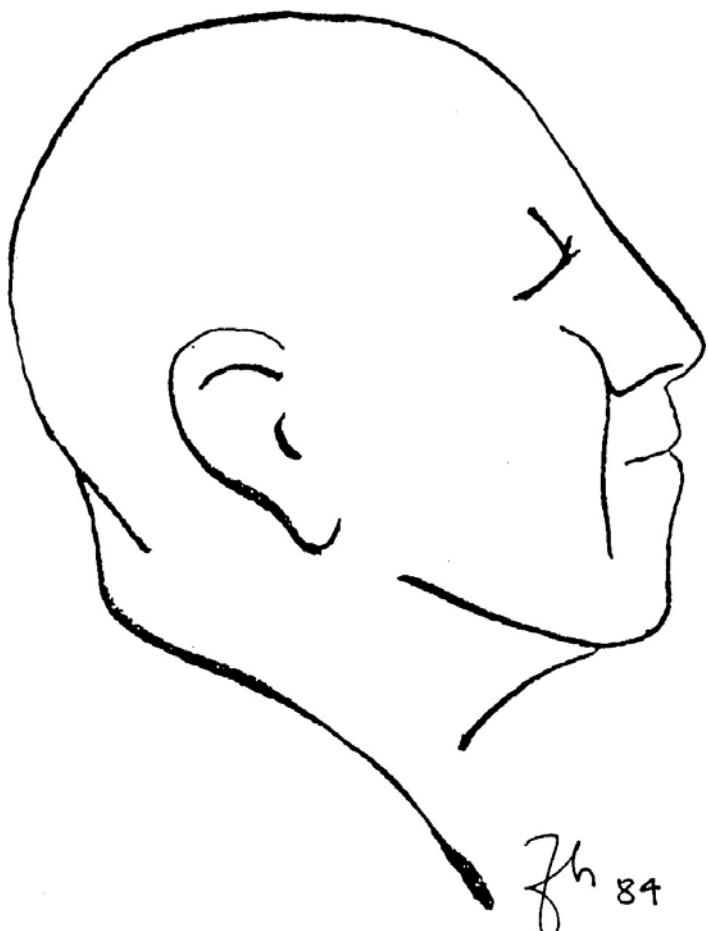
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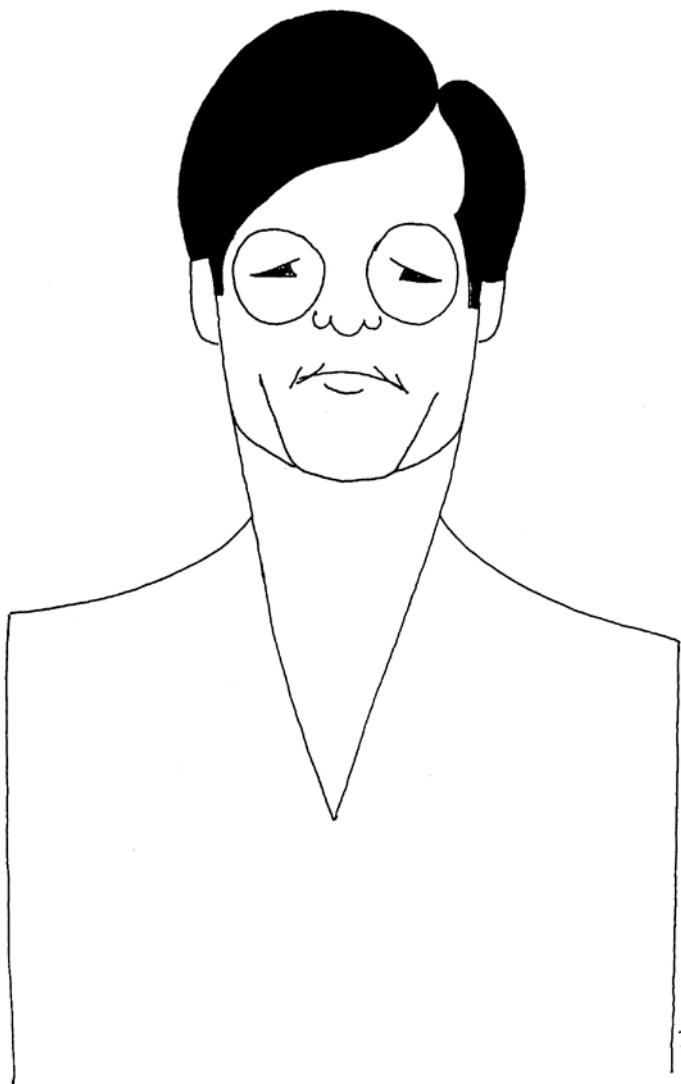
1984年

Z. Herman 氏 繪

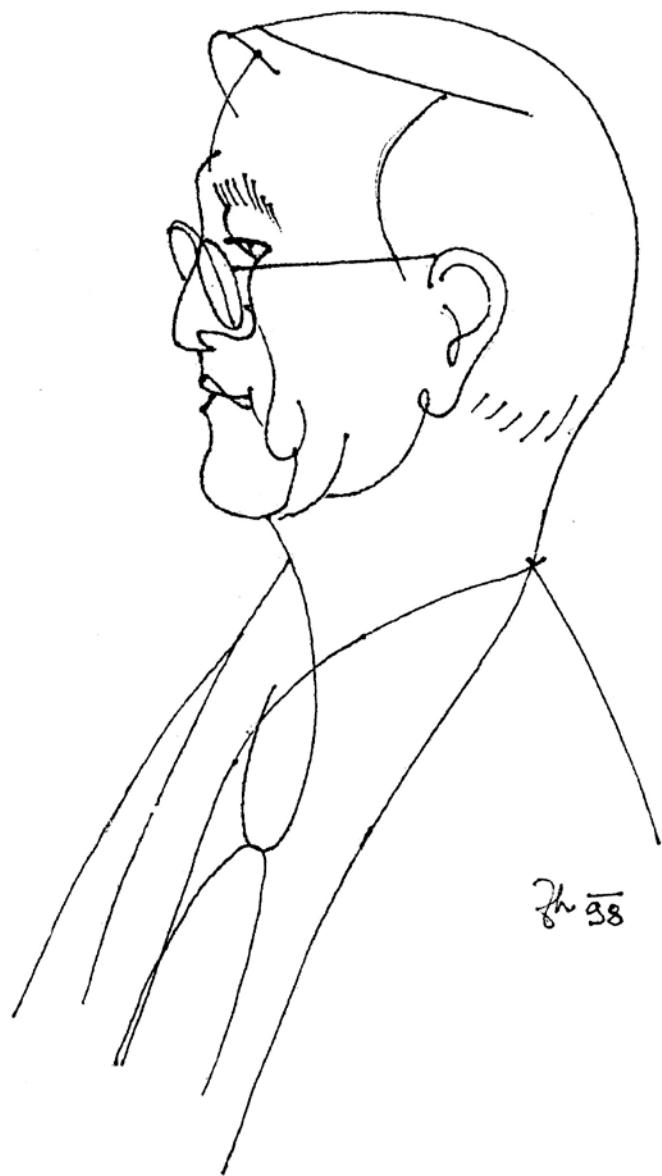
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Inosuke Koyano

Inosuke Koyano, Okazaki-Himeji



Rik (Tatsuhisa Kato) in the Okazaki days



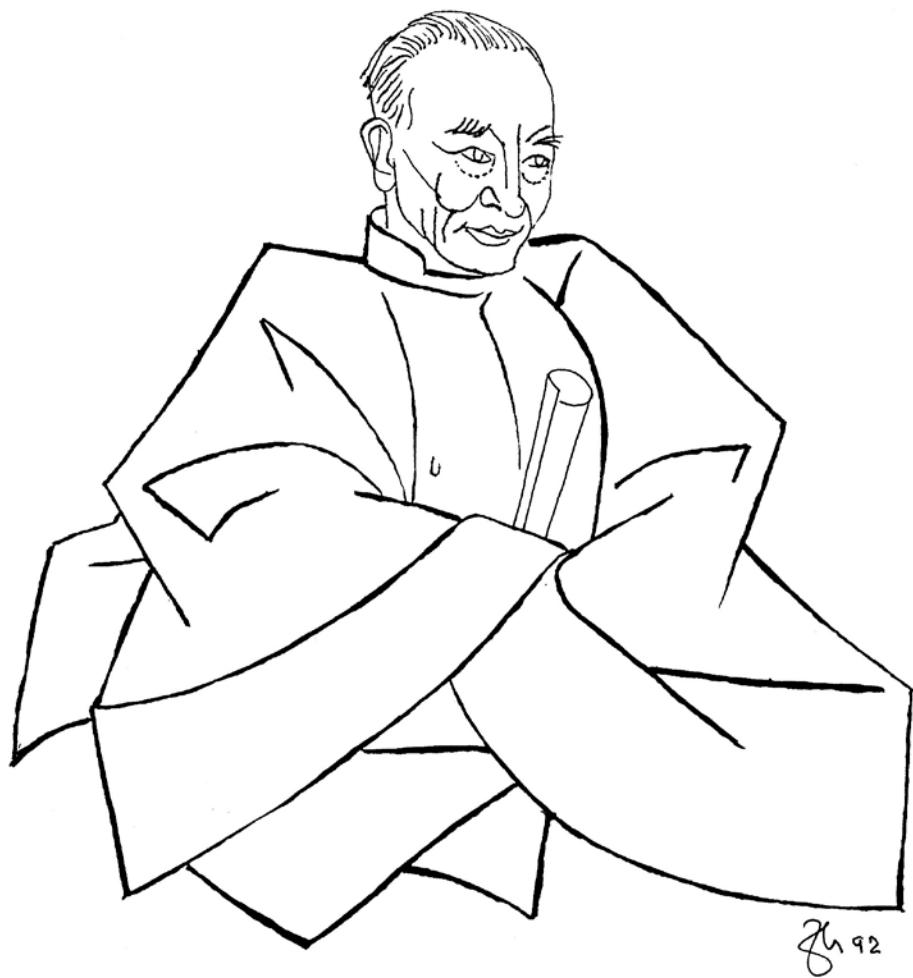
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VII. SPECIAL OCCASIONS

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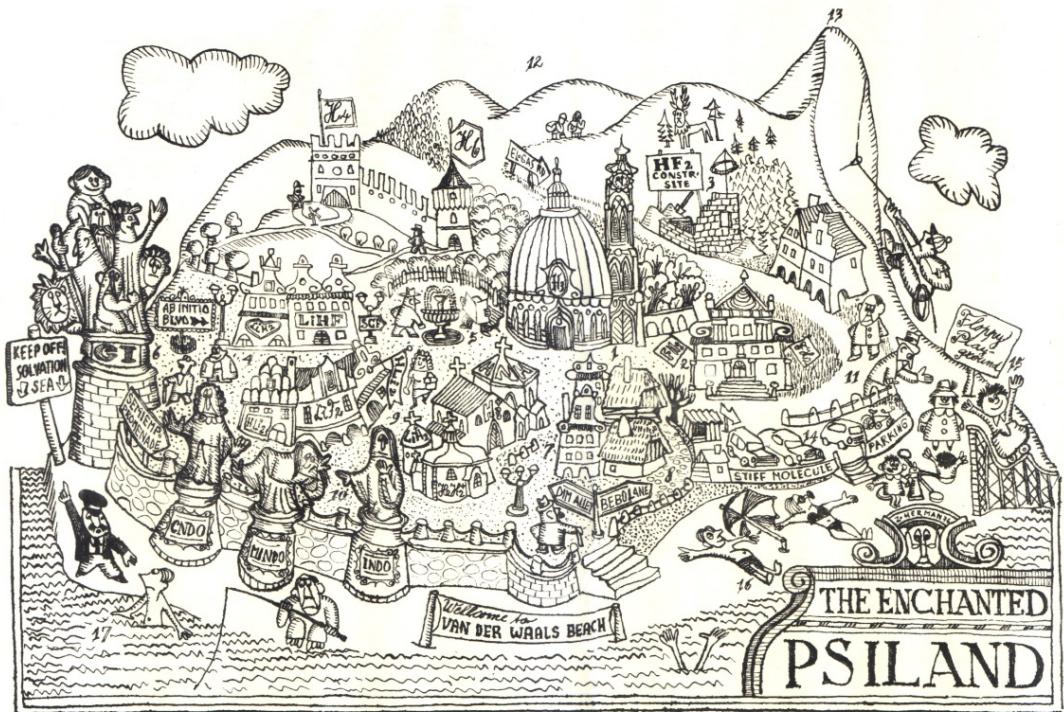


Farewell to Mike Menzinger 1969

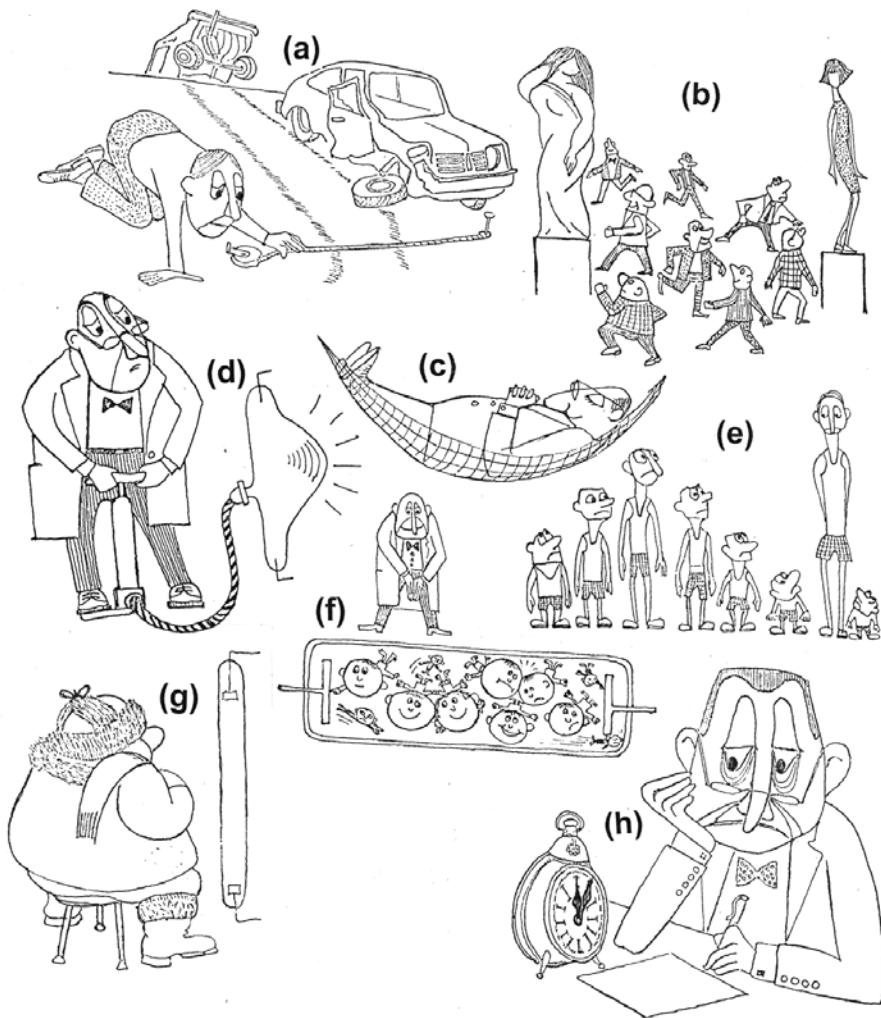
(Mike leaving the Dick Wolfgang's group at the University of Colorado):Mike Menzinger, Jim Kerstetter, Jim Richardson, John Krenos, Pete Hierl, Rod LeRoy, Dick Wolfgang, John Hawke, Andy Yencha,Zdenek Herman, Al Lee, Cal Blakely



*Foundation of the MPI Strömungsforschung in Göttingen
Dedication picture to Peter Toennies's Institute, 1970*



The enchanted Potential Surface Island. (Inspired by Dudley Herschbach's talk at the Faraday Discussions 1976 and in cooperation with him)



*Illustrations to invited lectures of the 3rd ESCAMPIG
(European Study Conference on Atomic and Molecular
Processes in Ionized Gases), Bratislava, 1978*

- (a) Cross section measurements (b) Cataphoric processes in glow discharges (c) Relaxation phenomena (d) High-pressure discharges (e) Non-statistical phenomena (f) Elementary processes in glow discharges (g) Discharges at cryogenic temperatures (h) Keep your time



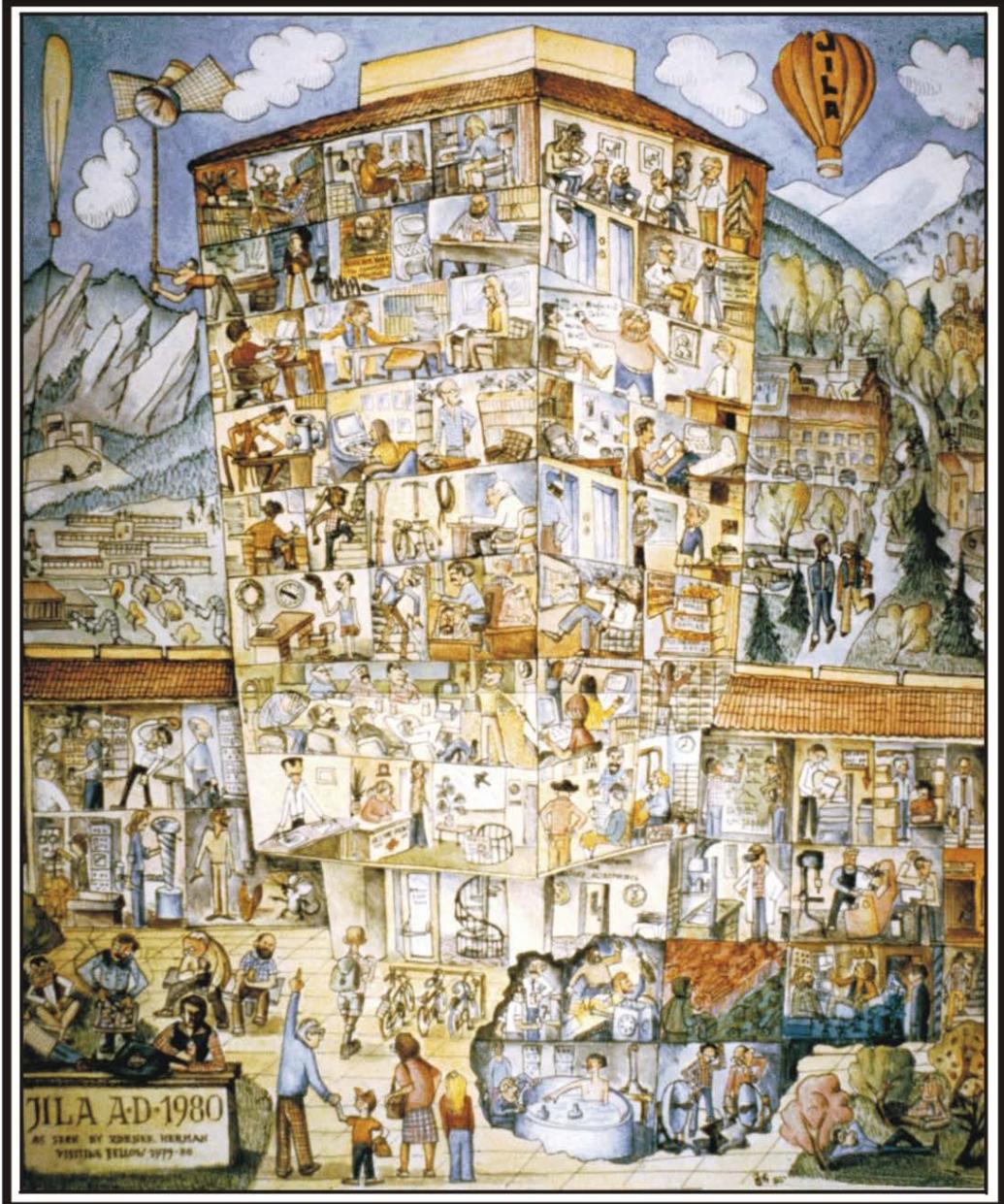
Editing the film on reaction dynamics in Berlin, 1978
G. Nierich (Director), Utz Havemann, Christian Zuhrt,
J. Pszolka, G. Serbe



*Reaction Mechanisms in Pictures:
Spectator Stripping*

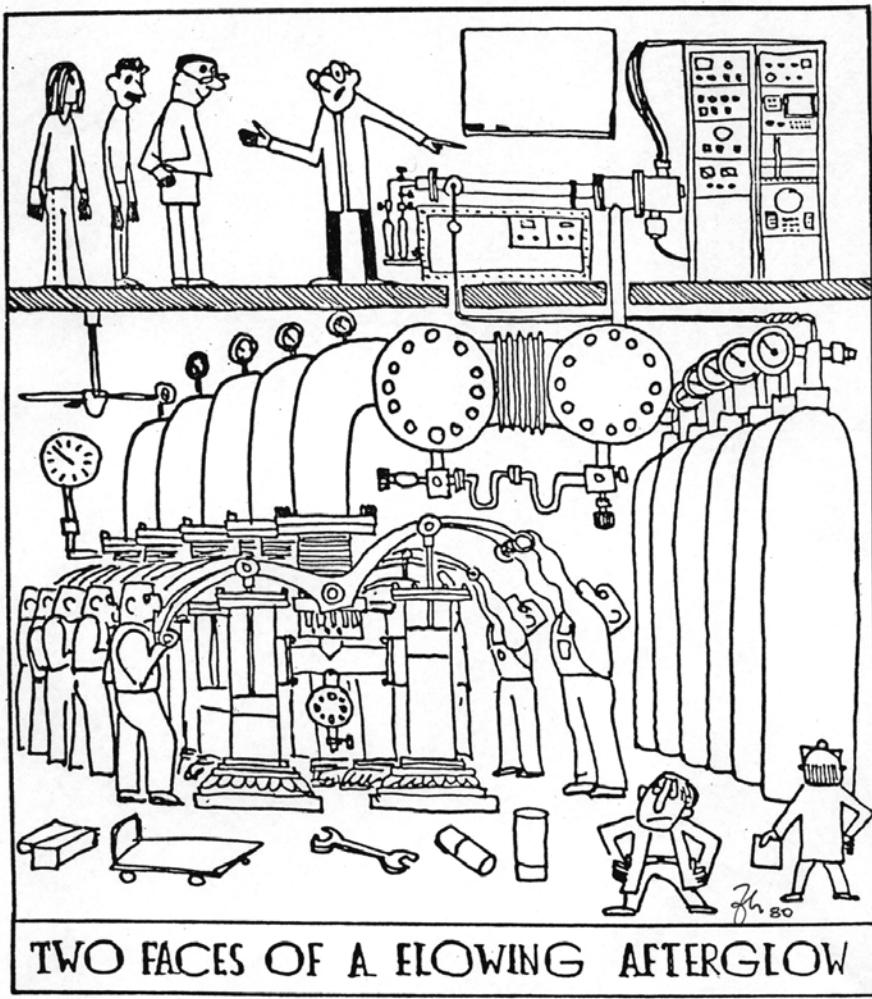


Reaction Mechanisms in Pictures: Long-Lived Complex Formation (Complex Minuet to which Dudley Herschbach wrote the tune)



J.I.L.A. A.D. 1980 (as seen by Zdenek Herman, Visiting Fellow)

*Joint Institute for Laboratory Astrophysics, Boulder, A.D. 1980
(On the occasion of leaving JILA in 1980)*

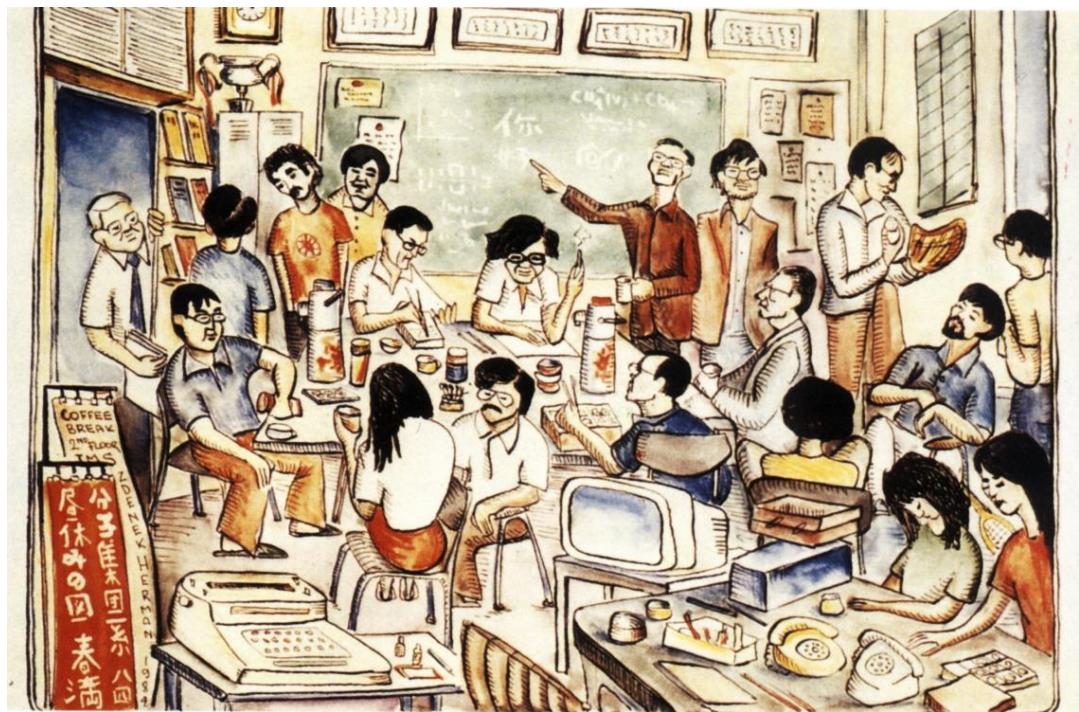


TWO FACES OF A FLOWING AFTERGLOW

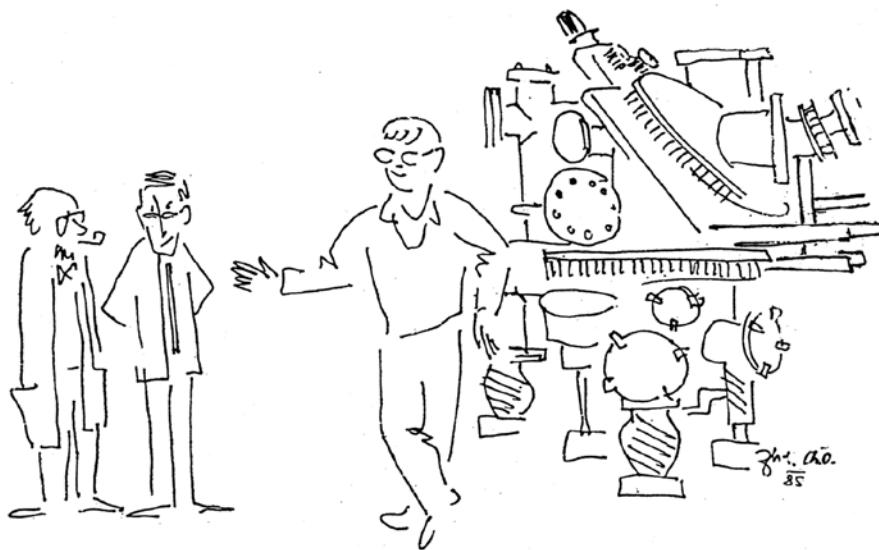
*Two faces of a flowing afterglow.
(Opening picture to the seminar in Boulder,
1980)*



Greetings to SASP 1984 (Symposium on Atomic and Surface Physics, Obertraun, Austria, 1984)



Coffee break in the department of Inokuchi Sensei, 2nd floor, Institute for Molecular Science, Okazaki, 1984



WHICHEVER WAY YOU SCAN THE MATTER,
BY FAR THE BEST IS, MAN, TO SCATTER!

*Illustration for Report 1985, Max-Planck Institut für
Strömungsforschung (J.P. Toennies), Göttingen
(text Christoph Ottinger)*

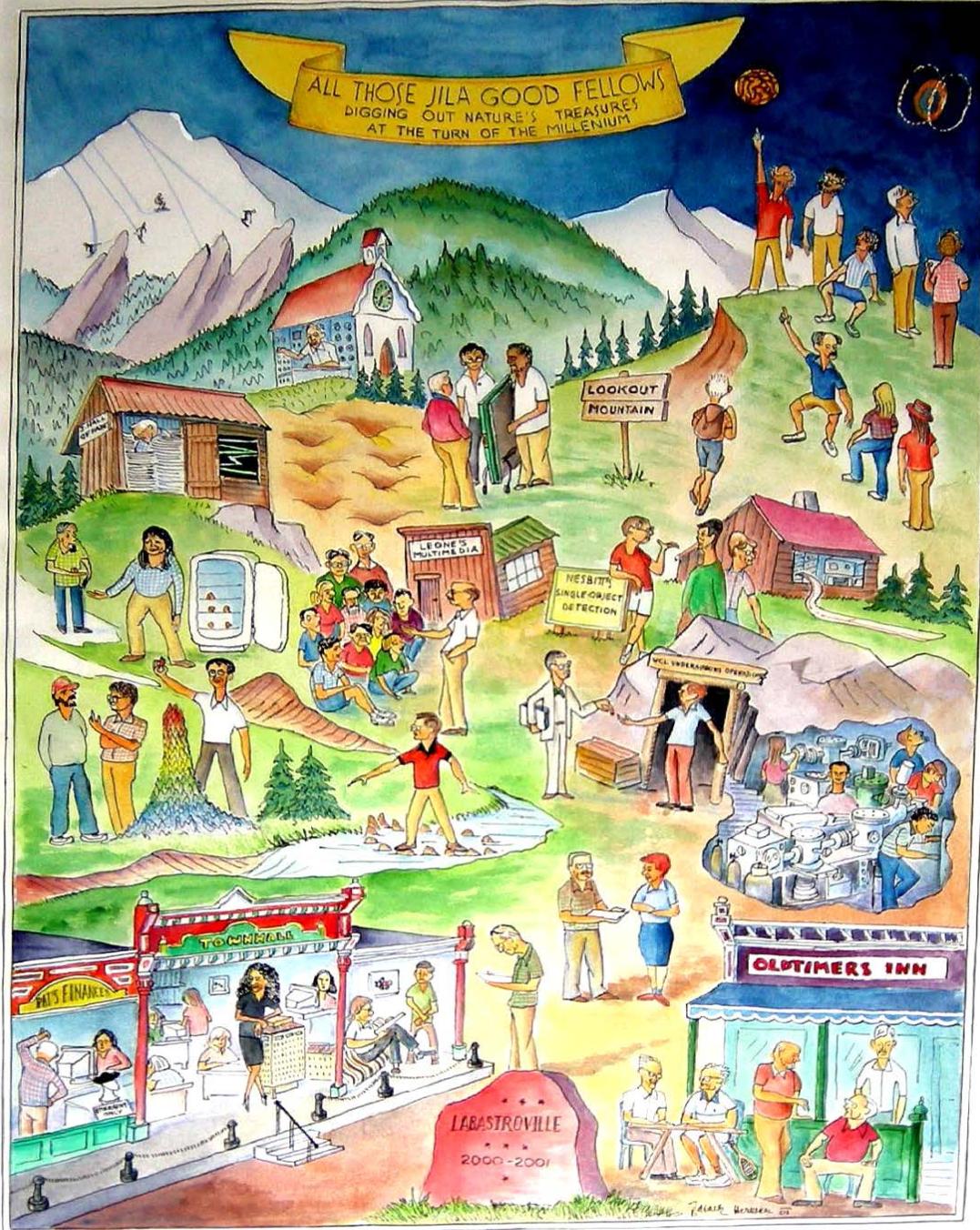


Philip R. Henchman '95

*MJH arrival to the U.S.A.
A greeting to Mike Henchman's 60th birthday, 1995*



Carl's underworld 2001. Basement laboratories of Carl Lineberger in JILA, Boulder, CO, 2001



LABASTROVILLE (On the occasion of leaving JILA in 2001),

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Arrival to the Istanbul MOLEC 2002 as a Turkish miniature



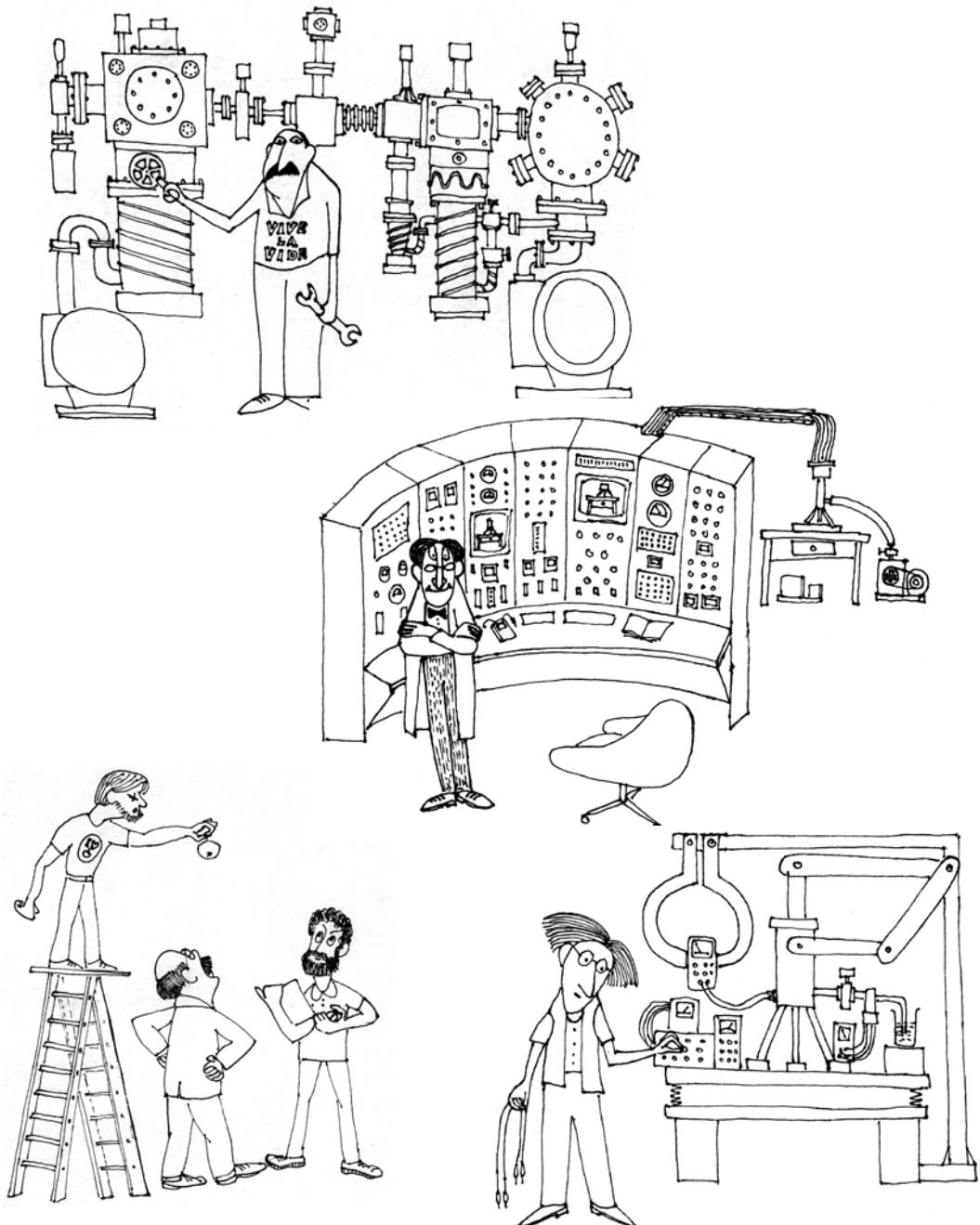
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An experimentalist among too many theoreticians
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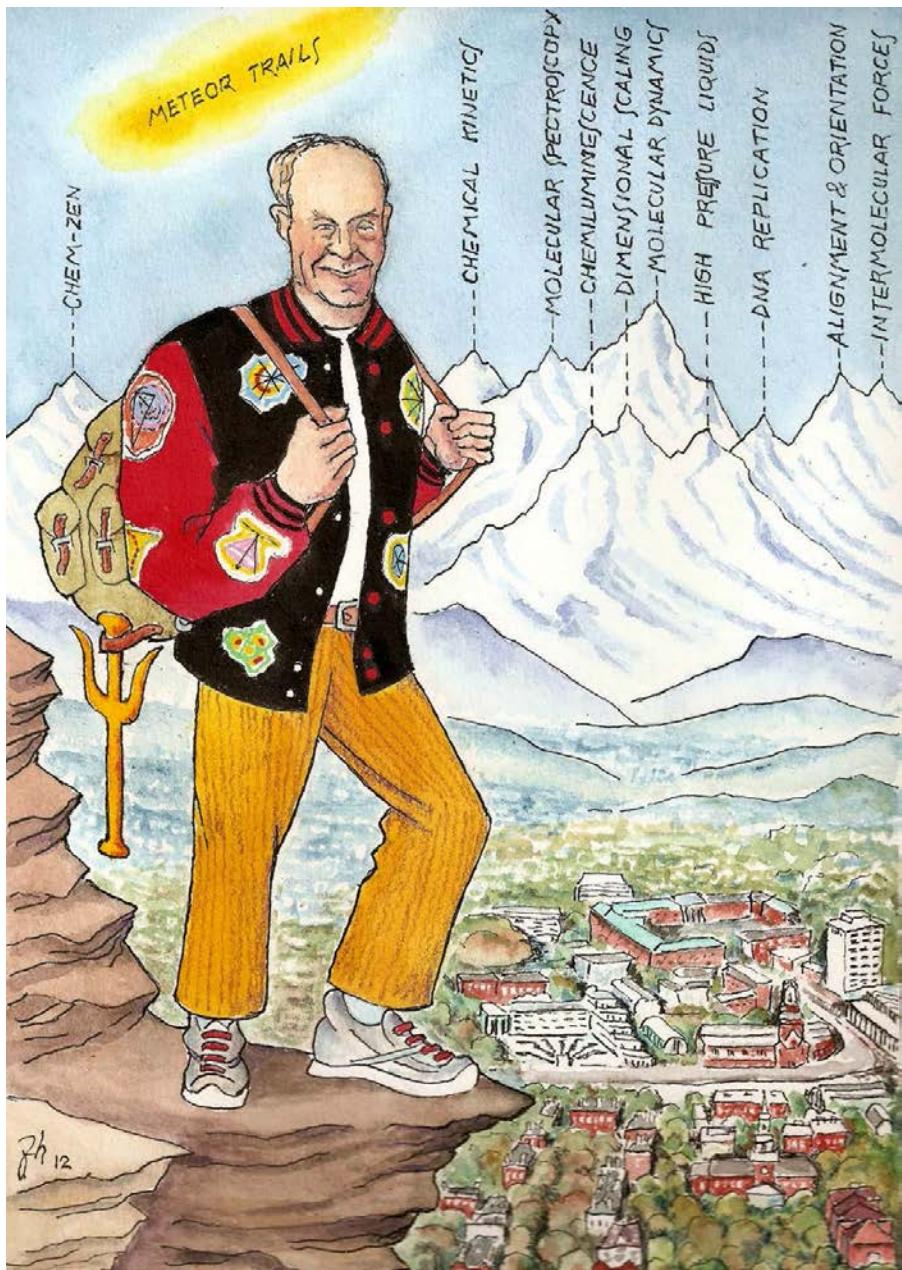
To the 60th birthday of Tilman D. Märk, 2004



Illustration to R. Zahradník, Z. Herman "On Lecturing, Lectures and Lecturers After Twenty Years" (Chem.Listy 2006): (a) Popular lectureres hurrying from conference to conference; (b) Avoid too many numbers; (c) Be elegant and avoid hands in pockets; (d) Time dilemma; (e) Keep your time.

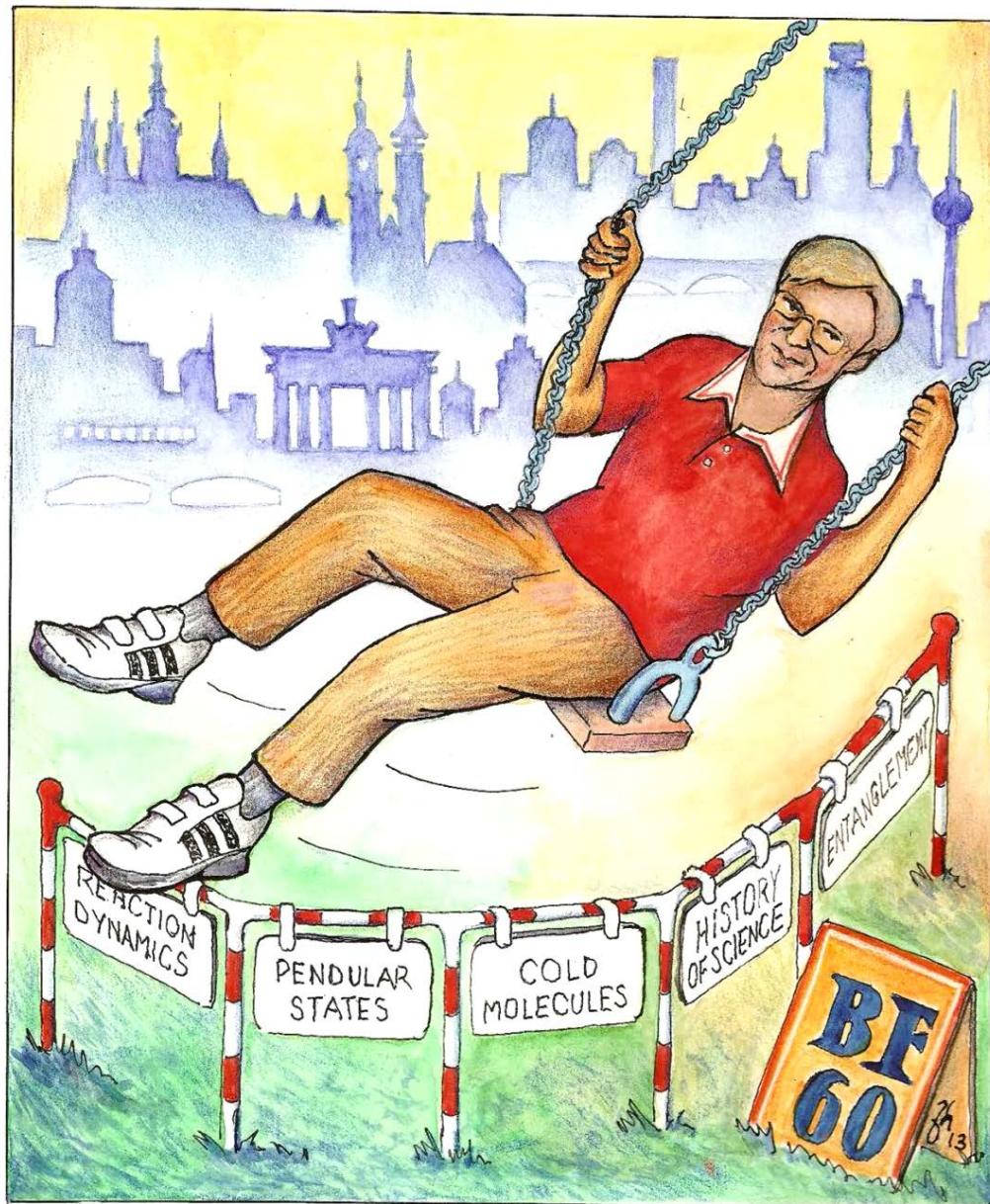


Illustrations to J.E. Faller "The Measurement of Little g", J. Res. NIST, 2006 (the vacuum engineer; the computer meister; theorist's view of g-measurement; the power electrician)



Scaling Mount Impossible

*Cover illustration for Molecular Physics, 110, Issue 15-16
(2012), Festschrift for Dudley Herschbach to his 80th birthday*



*Festschrift for Bretislav Friedrich to his 60th birthday .
Cover illustration for Molecular Physics, 111 (2013)*