

Dedication

Laudatio for Chris Raub and Welf Bronger on the Occasion of their 60th Birthdays

To my two friends, Welf with whom I have shared so many lectures, conferences and discussions, and Chris who has been and remains my boss and mentor as Editor-in-Chief of this journal, I offer my congratulations on their 60th birthdays. These two first met almost 40 years ago in the early days of the new semester at the University in Münster. Welf Bronger arrived after his Abitur in Hamburg and a start in Innsbruck (related to his lifelong love of the Alps). Chris Raub spent the preceding year with Firma Haraeus in Hanau working in vacuum technology.

The two of them shared the famous teachers that helped make Münster a center from which much of the solid-state chemistry of our era had its origin, including Professor Wilhelm Klemm, from whom they even learned how a correct T-joint should be made, and Harald Schäfer who brought them reluctantly to an understanding of empirical factors and the determination of boron in Jena glass. These two aspiring scientists took their girl-friends to the lectures by Heinz Bittel on applied physics because it was so exciting to learn about the operation of the then new transistor. Thus, they spent much time together not only at the Hindenburgplatz, but also at Pinkus and Lewe. They were finally consecrated by Rudolf Hoppe in the advanced practical class and finished their Diploma oral exams.

During their Diplomarbeiten, Welf Bronger worked with Wilhelm Klemm on a problem that arose in the daily industrial work of Dr. Endter at Degussa (who was himself a Klemm student), concerning the reactions of oxides with platinum metals in reducing atmospheres, while Chris Raub followed his interests in the intermediate region between chemistry and physics and worked on thermo-diffusion and thermodynamics of Ag–Zn alloys. They finished their theses almost simultaneously: Chris Raub headed off to a research appointment with Bernd Matthias at the University of California, San Diego in La Jolla and Welf Bronger went to Degussa in Konstanz where he worked on support catalysts with Dr. Endter.

During this period, Chris Raub investigated the low temperature properties of numerous materials, among which the superconductivity of multicomponent oxides was already a prominent interest. Welf Bronger, on the other hand, found himself measuring grain sizes of catalysts and longing for the excitement of the field to which he was soon to return, namely synthesis and characterization of novel inorganic solids. His initial return was to the laboratory of Wilhelm Klemm and here, among others, measurements were made on the magnetic properties of the A_3B compounds of the rare earths, compounds

with coexisting magnetism and superconductivity, in collaboration with Chris Raub.

In 1965, the Raub family returned to Germany and Chris was appointed as Leiter des Metalllaboratoriums der Firma Heraeus in Hanau. He remained there until 1970 when he was offered the position of Leiter des Forschungsinstituts für Edelmetalle and Metallchemie in Schwäbisch Gmünd. This institute, at which he has presided since that time, works in the area of fundamental and applied research of noble and refractory metals as well as on the surface treatment of metallic and non-metallic materials. Many of the results are documented in more than 350 publications with Chris Raub as author or co-author. He is much in demand as a lecturer, talking about subjects which span the breadth between "Electrolytic Deposition of Platinum-Cobalt Alloy Layers for Magnetic Memory" and "Conservation and Restoration of Noble Metal Objects in Museums".

In 1966, Welf Bronger habilitated with the inaugural dissertation: "Contributions to the Chemistry of Ternary Sulfides and Selenides of Transition Metals", and in 1966 he accepted the appointment to the Lehrstuhl für Anorganische und Analytische Chemie at the RWTH Aachen. In the foreground of his research are sulfides, selenides and tellurides of transition metals (which are characterized by X-ray and magnetic measurements) and also complex hydrides. Compounds such as Na_2PtH_4 and Na_2PdH_2 with planar $[\text{PtH}_4]^{2-}$ and linear $[\text{PdH}_2]^{2-}$ fragments were synthesized and characterized by X-ray and neutron diffraction. Also under his direction, phase transitions caused by the movement of the hydrogen ligands have been investigated through solid-state NMR. In recognition of his many contributions to science, Welf Bronger was Chairman of the AG Kristallographie for 3 years and was the Dean of Faculty for one year at the RWTH. He is, at present, Chairman of the Festkörperchemie section of the GDCH.

I shall close with three personal remarks: First, from Chris to Welf,

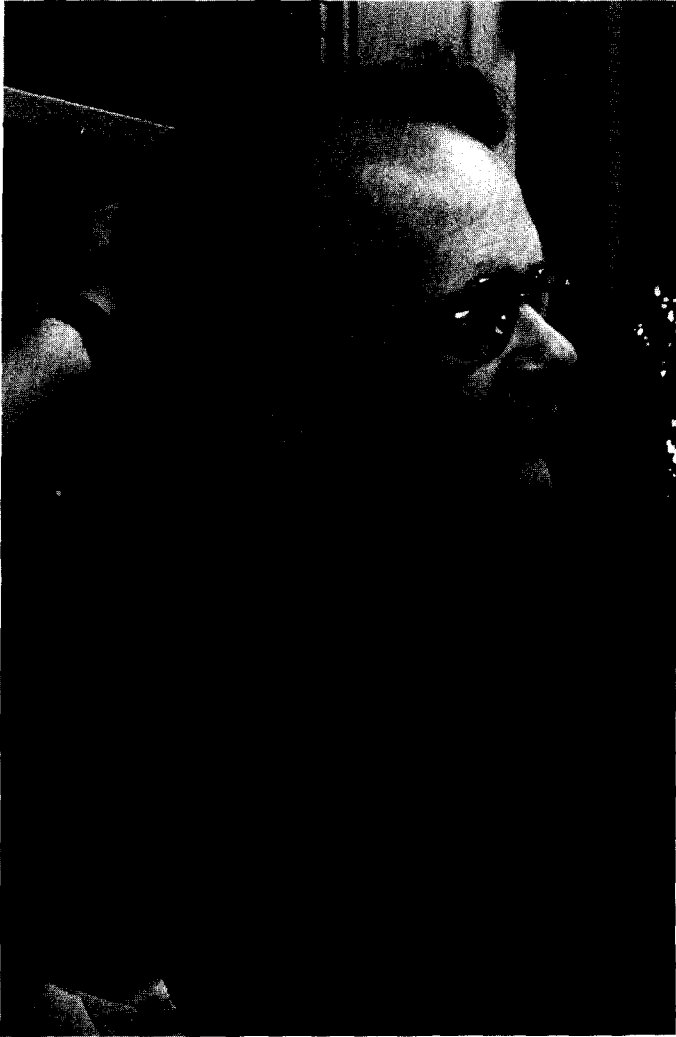
We thank your wife and your chemical and non-chemical children for keeping you so agile, despite so much scientific and administrative work, so you can enjoy yourself not only with rare hydrides and beautiful single crystals, but also with alpine flowers and landscapes. Give more room to this joy after your 60th birthday. Glück auf.

Second, from Welf to Chris,

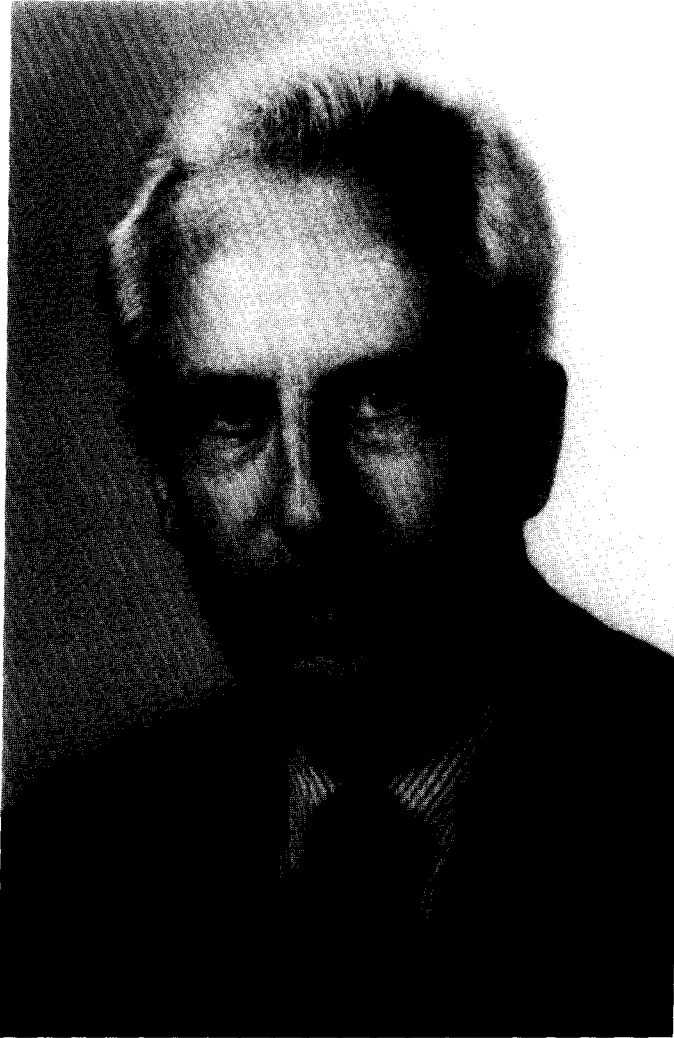
I wish you and your family all the happiness and health for the future, when, next to creative work there should be enough time for hiking on the trails of the Schwäbische Alb and the Schwarzwald and for fascinating discussions about the working areas of your three sons who abandoned chemistry.

Finally, from me to both Chris and Welf,

Long life and happiness to two colleagues who have enriched my life personally and professionally in equal measure.



Chris Raub



Welf Bronger
