Teachers of physics and chemistry at the German Technical University in Brno

The aim of this short paper is to describe the history of education of physics and chemistry during the whole time of the existence of the school. But we are concerned only with personal staff of departments of physics, chemistry, and chemical technology.

In 2004 a small book, a biographical lexicon, Teachers at the German Technical University in Brno 1849–1945 was published.¹ This book puts together lists of Professors, private and paid Docents, Lectures, and Assistants. Their names we found in two Festschrifts (1899, 1924) and for the years 1924–45 in the study programs of the German Technical University in Brno. Information about these persons we collected from many biographical encyclopaedias, dictionaries, and books devoted to the history of technical education in Austria and Germany.

The first part of the book brings basic data about life, study, pedagogical and scientific work of the members of the Professor's staff. The list contains 148 names of extraordinary and full Professors and we believe that the list is exhaustive. Similar, however not so complete, are the lists of other teachers at the Technical University. The list of Docents and Lecturers contains 189 persons. 47 Docents were appointed Professor at the Brno Technical University and many of them at others universities in Austria or Germany. From 738 Assistants 29 persons were appointed Professor in Brno and 46 were appointed Docent.

1. History of school

We think that is necessary to present the basic data about the history of the German Technical University in Brno, because it is not generally known.

In 1847 Emperor Ferdinand I approved the establishment of the Technical College (Technische Lehranstalt) as a state institution (as distinct from Prague and Graz, where the technical schools were estates schools). The first five Professors were appointed in December of 1849 and on the 14th January 1850, the Technical College was festively opened. The director of college, Florian Schindler, came to Brno from Lemberg, where he was director of the Technical Academy. The college had two faculties, technical and commercial, and the one year preliminary course. The residency of the college was an old building in Trnita street and the new building was finished in 1860, now the building of the Faculty of medicine of the Masaryk University.

In 1860s the Technical Universities in Austria was transformed. In 1867 Emperor approved a new organization chart and the name of the school was changed to Technical Institut, but the transformation was not completed.

In 1873 the Technical Institute was transformed to a university and its name was changed to Technical University (Technische Hochschule). The university had four faculties: civil engineering, mechanical engineering, chemical technology, and general faculty. The fifth faculty, for architecture, was established in 1912.

¹Šišma, P.: *Učitelé na německé technice v Brně 1849–1945. Praha 2004.*

In 1910 the second building of the school was opened, projected by architect Ferdinand Hrach, Professor of the school.

During the years 1914–18, during the First World War, 9 Professors, 7 Privatdocents and 40 Assistants were enlisted. After 1919, many of them came back to Brno from Russian captivity.

The establishment of the Czechoslovak Republic evoked the consideration of the abolition of the German universities in our country. Large numbers of young people, who came back from the war and started their study, hindered this decision. In March 1919, the Professors took a vow of the loyalty to the new republic.

In the 1930s the economic crisis evoked the consideration of the union of the Prague German Technical University and the Brno German Technical University, but it wasn't realized.

From 1st September, 1939, the school was controlled by the German Ministry of Education. After the closure of the Brno Czech universities (in November 1939), the German Technical University has taken the equipment and buildings of these schools. A lot of Professors, Docents and Assistants were drafted to army.

On the 18th October, 1945, the German Technical University in Brno was dissolved by a decree of the President of the Czechoslovak Republic.

2. Statistical data

List of all Professors, which contains 148 names, allows statistical processing of the large number of personal data. At first we will follow the personal data of all Professors and in the last part of our paper we will focus on Professors of physics and chemistry. We know that this workshop focuses to the turn of the century and to Professors of science, but we think that it may be useful to see the changes during the development of school and to have comparison between situation in physics and chemistry and in other branches.

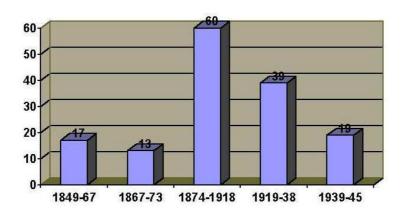


Figure 1: Numbers of appointed Professors

Number of Professors In the first figure we can see numbers of Professors, who were appointed at the Brno German Technical University during the most

important periods of the history of school. We can see e.g. that during the period of the transformation, this mean during the years 1867–73, 13 Professors were appointed. The period 1874–1918 is the most important for us.

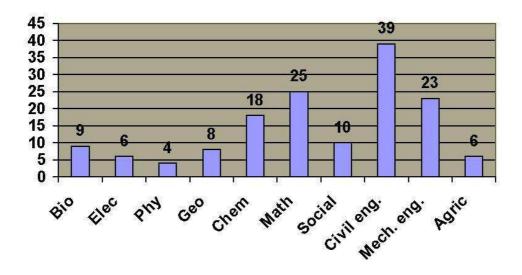


Figure 2: Numbers of Professors for particular branches

The second and third graphs show numbers of Professors of particular branches. We can see that 18 persons were Professors of chemical branches (chemistry or chemical technology). Professors of chemistry form 12 % of all Professors. Professors of civil engineering, mechanical engineering, and mathematical sciences (mathematics, descriptive geometry and mechanic) form the most important parts of Professor's staff.

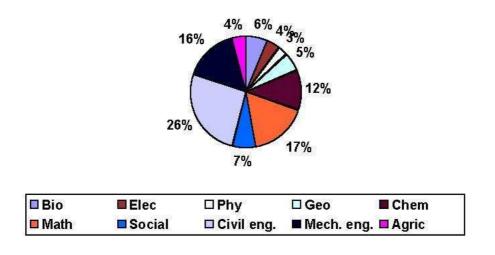


Figure 3: Numbers of Professors for particular branches

Where were the Professors born? The next two graphs show, where the Professors were born. 34% of Professors were born in Moravia, 15% in Bohemia, this mean 49% in Czech lands.

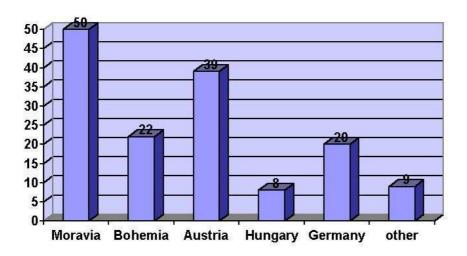


Figure 4: Where were the Professors born?

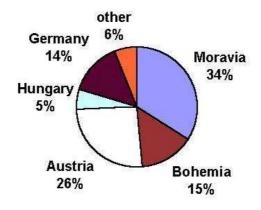


Figure 5: Where were the Professors born?

The next graph enables to us compare the situation during the history of the school. We can see that Czechs lands dominated in all periods, but the proportion between Austria and Germany was changed.

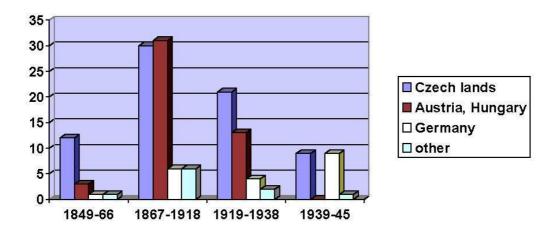


Figure 6: Where were the Professors born?

Where did the Professors graduate? Next graphs show the schools where Professors graduated. Most of them studied at two or three universities, but our graphs show only the school where they finished their study as technicians, engineers or doctors.

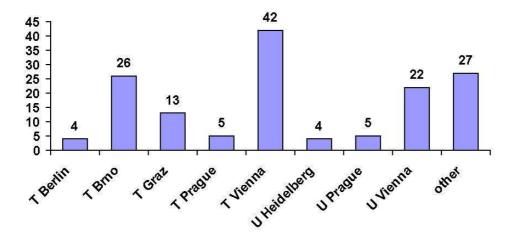


Figure 7: Where did the Professors graduate?

We can see that Vienna's universities dominated and e.g. at the Graz Technical University 13 Professors were graduated, this mean more than at both Prague universities together.

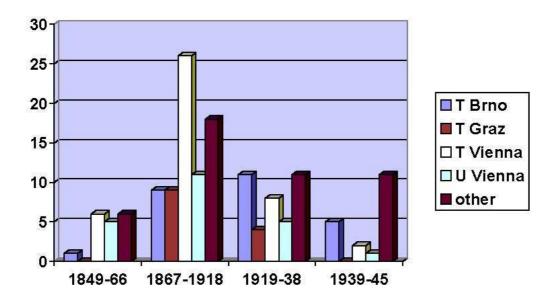


Figure 8: Where did the Professors graduate?

What did the Professors do before their arrival to Brno? We think that it is interesting to ask what Professors did do before their arrival to Brno. We can distinguish four possibilities: Assistant at university or technical university, Professor at other university or technical university, teacher at secondary school, and practise (work in industry, office, ...).

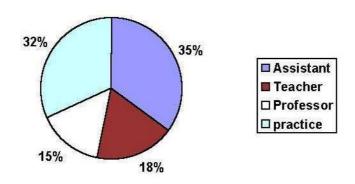


Figure 9: What did the Professors do before their arrival to Brno?

We can see that a very important part of Professors were Assistants at universities, most of them were Privatdocents or paid Docents. A lot of Professors of Technical University came to Brno from practise, this is natural.

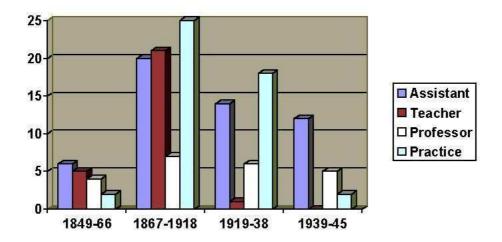


Figure 10: What did the Professors do before their arrival to Brno?

What did the Professors do after finishing their work in Brno? Naturally the other question is what Professors did when they finished their work in Brno.

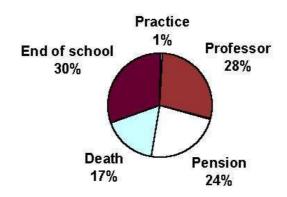


Figure 11: What did the Professors do after finishing their work in Brno?

28~% of Professors went to other universities in Austria or Germany. 20~% of them went to the Vienna Technical University and 16~% to the Graz Technical University. Of course a lot of Professors died or was retired. Large number of Professors finished their work in Brno in 1945, when the school was abolished.

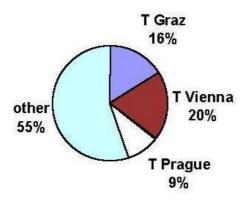


Figure 12: Where did the Professors teach after their departure from Brno?

The next graph enables to us compare the situation during the history of the school.

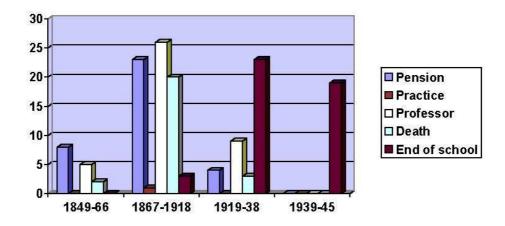


Figure 13: What did the Professors do after finishing their work in Brno?

3. Department of Physics

Situation in Department of physics at the German Technical University in Brno was very simple because only four Professors of physics worked at this school during the whole time of its existence. This small number doesn't make statistical processing possible. Among Professors of physics, we know 9 Privatdocents of physics who habilitated in Brno. Not all of them were Assistants at school, e.g. Koláček, Zelbr. Some worked at the German Brno Technical University only shortly, some were Assistants many years (e.g. Obrist 27 years).

Václav Hrubý, the first Professor of physics at the German Technical University in Brno, was appointed in December of 1849. He was Professor in Brno during the whole time of existence of Technical College (1849–1867). He retired in 1867, when Technical College was transformed. His qualification was not sufficient for new Technical Institute and future Technical University. **Robert Felgel**, Professor of *Realschule* in Vienna, was his successor in 1867.

In 1901 **Gustav Jaumann**, extraordinary Professor of experimental physics and physical chemistry at the Prague German University, was appointed in Brno. He was the most famous teacher of physics at the German Technical University in Brno. In 1911 he tried to obtain the chair at the Prague University, when the Professor of theoretical physics Ferdinand Lippich retired. We know that Albert Einstein was appointed and Jaumann taught physics in Brno till 1924, when he died during a trip in the Alps.

Jaumann's Assistant **Erwin Lohr** was the last Professor of physics. He taught in Brno till 1945.

Assistants of physics: Wenzel Grünert (1872–73), Josef Wáclav (1873–74), Victorin Zahrada (1874–78), Max Weinberg (1878–82), Moriz Filepek (1882–88), Camillo Wessely (1888–90), Friedrich Gschnitzer (1890–92), Victor Grünberg (1893–96), Johann Augustin (1897–1900), Alois Materna (1900), Josef Tuma (Adj.) (1900–1902), Heinrich Müller (1901–1902), Arthur Szarvassi (1901–03), Arthur Szarvassi (Adj.) (1903–19), Leopold Kann (1902–04), Rudolf Ille (1904–05), Erwin Lohr (1905–19), Johann Mikyska (1911–13), Josef Obrist (1913–40), Hubert Bräunlich (1918–19), Franz Hlučka (1920–44), Florian Techet (1920–23), Hans Čech (1921–22, 1923–44), Felix Lettowsky (1923–44), Tibor Loibersbeck (WH) (1941–42), Kurt Heinisch (WH) (1941–42), Irene Dumka (1943–44).

Privatdocents of physics: Ignaz Wallentin, 1875–79; František Koláček, 1882–84; Karl Zelbr, 1896–1900; Josef Tuma, 1901–02; Leopold Kann, 1903–09; Arthur Szarvassi, 1905–19; Erwin Lohr, 1908–19; Felix Lettowsky, 1940–45; Josef Obrist, 1940–45.

Among Assistants and Privatdocents of physics, we can find a lot of secondary school teachers: Victorin Zahrada (Brno), Victor Grünberg (Znojmo), Ignaz Wallentin (Opava, Director of Franz Joseph Gymnasium in Vienna and from 1904 Provincial school inspector for Niederösterreich), Leopold Kann (Plzeň).

František Koláček (1851, Slavkov u Brna – 1913, Prague) taught only one year as Privatdocent in Brno. He was teacher of physics and mathematics at the first Czech grammar school in Brno. Later he was Professor of physics at the Prague University (1891–1913) and one year at the newly established Brno Czech Technical University.

Karl Zelber (1854, Oszlan – 1900, Brno) habilitated for astronomy in 1896 and during the years 1890–1900 he was librarian at the Brno Technical University.

Josef Tuma (1866, Vienna – 1938, Prague) studied at the Vienna University (1885–90) and the Vienna Technical University (1890–94). In 1891 he obtained doctorate in philosophy and worked as Assistant at University (1891–1901). In 1895 he habilitated at University and in 1898 at Technical University. His venia docendi was transferred to the Brno Technical University, where he worked only

two years. In 1902 he went to Prague, where he was appointed Professor of physics at the German Technical University and worked there till 1936, when he retired.

4. Professors for chemistry and chemical technology

Professors of chemistry or chemical technology at the Brno German Technical University were: Bernhardt Quadrat (he worked at Technical University during the years 1849–1871), Friedrich Marian (1867–1869), Karl Zulkowsky (1870–1887), Eduard Linnemann (1872–1875), Josef Habermann (1875–1912), Eduard Donath (1888–1920), Max Hönig (1891–1924), Gustav Ulrich (1900–1934), Karl Frenzel (1912–1939), Benjamin Margosches (1913–1928), Anton Lissner (1920–1942), Albin Kurtenacker (1923–1939), Ernst Galle (1929–1945), Ludwig Anschütz (1930–1945), Hermann Mühlinghaus (1936–1945), Anton Schäffner (1941–1945), Rudolf Lang (1942–1945), Josef Holluta (1942–1945).

Eighteen Professors of chemistry or chemical technology worked at the German Technical University in Brno during the whole period of existence of school. Most of them were born in Moravia or Bohemia.

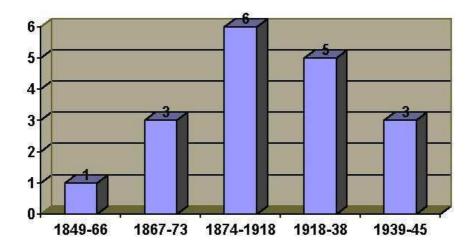


Figure 14: Numbers of appointed Professors for chemistry

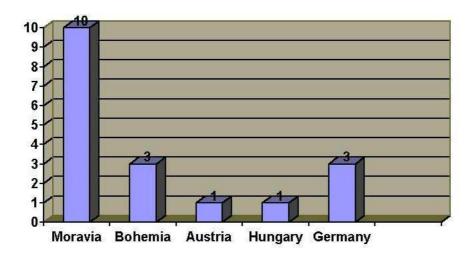


Figure 15: Where were the Professors for chemistry born?

They graduated at large number of universities in Czech lands, Austria and Germany.

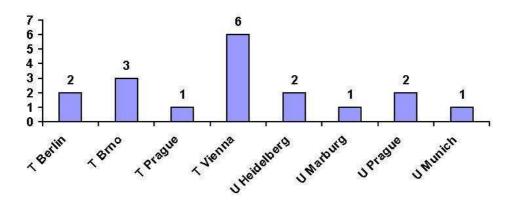


Figure 16: Where did the Professors for chemistry graduate?

10 of them were Assistants at universities and 9 of them in Brno. 11 habilitated, 8 in Brno.

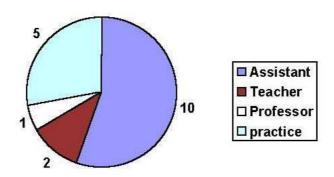


Figure 17: What did the Professors for chemistry do before their arrival to Brno?

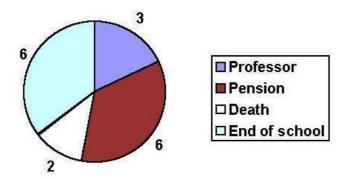


Figure 18: What did the Professors for chemistry do after finishing their work in Brno?

5. Departments of chemistry

At first we will speak about Professors of chemistry, then about Professors of chemical technology. At the end we will remember the most important Privatdocents and Assistants, especially future Professors of universities.

Bernhardt Quadrat, the first Professor of general chemistry at the Brno German Technical University, was appointed in December of 1849. In 1871 he retired (later he was teacher of chemistry at private secondary schools) and during the years 1871–72 chemistry was substituted by **Eduard Lippmann**, Privatdocent at the Vienna University.

Eduard Linnemann, Professor at the Lemberg University, was appointed in Brno in 1872 and taught there until 1875, when he came to the German University in Prague.

Josef Habermann, Adjunkt and Privatdocent of the Technical University in Vienna, was his successor from 1875. Agricultural chemistry was taught during the years 1872–76 by Adjunkt Victor von Zotta and then by Max Hönig, who habilitated in 1879 and in 1889 he was appointed extraordinary Professor.

In 1891 the department was divided into Department of agricultural chemistry (Max Hönig, from 1898 full Professor) and Department of general and analytical chemistry (Josef Habermann). During the years 1908–09 Docent **Richard Ehrenfeld** taught analytical chemistry and in the school years 1908–09 analytical chemistry was taught by **Karl Frenzel**.

In 1912 Habermann retired and the departments of chemistry were reorganized. Max Hönig became Professor of organic, agricultural and food chemistry and worked in Brno till 1924, when he retired.

His successor, **Ludwig Anschütz**, was appointed Professor of organic chemistry not until 1930 and work at school till 1945. Food chemistry and agricultural chemistry were taught till 1939 by Privatdocent **Karl Kürschner** and during the years 1939–45 by Privatdocent **Heinrich Leopold**.

In 1912 Karl Frenzel was appointed Professor of anorganic, physical and analytical chemistry. In 1923 the Department of analytical chemistry was established and Albin Kurtenacker was appointed extraordinary Professor. Frenzel taught anorganic and physical chemistry till school year 1935–36. In 1936 the education of chemistry was changed. Frenzel taught only physical chemistry and in 1939 he retired. Paid Docent Josef Holluta taught physical chemistry till 1942, when he was appointed Professor of physical chemistry.

From 1936 **Albin Kurtenacker**, Professor of analytical chemistry, taught anorganic chemistry till 1939, when he retired because his wife was a Jewess. Analytical chemistry was substituted by his Assistant and Privatdocent **Rudolf Lang**, who was appointed Professor of analytical chemistry in 1942.

Assistants of general chemistry: Franz Beer (1851–53), Franz Jakob (1853–54), Karl Badal (1855–58), Franz Czermak (1857–62), Ferdinand Langenbacher (1863–65), Emil Winkelhofer (1866–71), Karl Bayer (1871–73), Viktor von Zotta (Adj.) (1872–76), Karl Penl (1873–75), Max Hönig (1875–76), Max Hönig (Adj.) (1876–91), Emanuel Schneider (1876–78), Stanislaus Schubert (1878–80), Johann Robitschek (1880–81), Franz Berger (1881–84), Franz Fiala (1884–85), Gustav Spitz (1885–86), Karl Pirschl (1886–88), Friedrich Kopřiwa (1888–89), Aurel Weiser (1889–90), Georg Hattensaur (1890–93), Arnold Abeles (1893–94), Ferdinand Kohn (1894–95), Karl Jukl (1894–95), Sigmund Sachsel (1895–96), Paul Herschmann (1895–96), Rudolf Bojanowsky (1896–98), Isidor Teichner (1896–97), Julius Grünwald (1897–98), Johann Heppner (1898–?).

Assistants of general and analytical chemistry: Leopold Jesser (1898–99), Julius Jarka (Adj.) (1898–1902), Richard Ehrenfeld (1899–1902), Richard Ehrenfeld (Adj.) (1902–09), August Österreicher (1900–1904), Max Dörfler (1902–03), Oskar Kuhn (1903–05), Johann Mikusch (1904–09), Artur Altmann (1905–08), Friedrich Slabinak (1908–09), Albin Kurtenacker (1908–11), Hans Brezina (1909–

10), Eugen Noga (1909–10), Ernst Galle (1910–11), Rudolf Kloss (1910–12), Eduard Homma (1910–11), Albin Kurtenacker (Adj.) (1911–22).

Assistants of anorganic, physical and analytical chemistry: Hans Brenek (1913–16), Richard Kralik (1913–18), Alfons Hanusch (1912–14), Rudolf Lang (1914–30), Walter Bartelmus (WH) (1914–15), Viktor Urban (1916–18), Heinrich Metzl (WH) (1916, 1918–19), Heinrich Metzl (1919–20), Karl Wazacz (1919–20), Hans Kubina (1919–31), Josef Holluta (WH) (1919–20), Alois Pauler (1919–20), Josef Holluta (1921–36), Rudolf Leo (1918–24), Alois Ludwig (1921–24), Hans Hadamik (1919–27), Albin Kurtenacker (Adj.) (1922–23), Alfred Martini (1924–26), Friedrich Wengefeld (1924–26), Hans Werner (1926–28), Adolf Czernotzky (1926–28), Rudolf Burian (1928–35), August Mutschin (1928–30), Fritz Schönaich (1931–35), Hans Löschner (?).

Assistants of analytical chemistry: Rudolf Lang (1930–36), Fritz Schönaich (1930–31), August Mutschin (1931–36), Franz Eder (1941–43), W. Szelecky (WH) (1941–42), Walter Schorsch (1943–44), Ingeborg Fürstenau (1943–44).

Assistants of anorganic and analytical chemistry: Rudolf Lang (1936–39), R. Birthler (1936–39), Hanns Pix (1940), Hans Schenk (1939–40), Franz Gaberle (WH) (1940).

Assistants of physical chemistry: Josef Holluta (1936–39), Walther Hermann (1936–40), Hanns Pix (1939), Walther Boguth (1940), Odo Sturz (1940–41), Gerda Jonak (WH) (1940–42), Gerda Jonak (1942–44), Elli Gregory (WH) (1941–42), Elli Gregory (1943–44).

Assistants of agricultural and food chemistry: Stanislaus Epstein (1902–03), Richard Rátz (1903–05), Hugo Recht (1905–06), Hermann Feitzinger (1906–07), August Winkler (1907–17), Jacques Spitzer (1913–16), Arnold Gröger (1916–18).

Assistants of organic, agricultural and food chemistry: Karl Scharrer (1919–21), Walter Fuchs (1919–26), Alfred Schück (1920–22), Karl Kürschner (1922–39), Franz Tempus (1922–25), Alexander Nemes (1925–26), Walter Ružicska (1927–31), Wilhelm Jurenka (1931–32), F. Otto (1932–36), Kurt Schmidt (1936–39), Adolf Kubelka (1937–39).

Assistants of organic chemistry: Heinz Hajek (1940, 1942–44), Siegfried Grüttner (1940, 1942–44), Gerhard Gross (1940–44), A. Mayer (WH) (1941–42), Robert Neher (WH) (1941), Robert Neher (1941–43), Anna Ohnheiser (WH) (1941–42), Anna Ohnheiser (1943–44).

Assistants of general technical chemistry: Gustav Schoblik (1940–42), Eduard Mayer (1940), Arnold Friede (WH) (1940), Arnold Friede (1941–42), Ingeborg Tögel (WH) (1941–42).

5. Departments of chemical technology

Chemical technology I Friedrich Marian, teacher of *Realschule* in Loket, was appointed the first Professor of chemical technology in Brno in 1867. He died in 1869 and **Karl Zulkowsky**, Assistant of the Vienna Technical University, was appointed his successor. Zulkowsky went to the Prague Technical University in

1887 and chemical technology was taught by Privatdocent Max Hönig. Eduard Donath, Adjunkt of Leoben Mining Academy, was appointed extraordinary Professor of chemical technology in 1888 and full Professor in 1890.

In 1909 the second department of chemical technology was established and Donath was Professor of Department of chemical technology I (anorganic and part of organic chemical technology). He retired in 1920 but he taught in Brno during the next years. Donath's successor was **Benjamin Margosches**, Professor of Department of chemical technology III. Margosches died in 1928 and **Ernst Galle** was appointed in 1929. At the beginning of the World War II the title of Department of chemical technology I was changed to Department of anorganic technical chemistry.

Assistants of Department of chemical technology I: Eduard Donath (1870– 73), Leopold Weigert (1873–74), Alois Schwarz (1874–75), Ernst Hoschek (1876– 78), Gustav Renner (1878–80), Max Gröger (1880–82), Karl Hanofsky (1882–85), Josef Stumpf (1885–86), Max Hönig (1886–87), Leopold Jesser (1887–88), Vincenz Umfer (1888), Franz Lafar (1888–90), Sigmund Feitler (1890–95), Friedrich Eichleiter (1891–92), Robert Strasser (1892–93), Paul Kaszpar (1893–94), Karl Frenzel (1894–95), Samuel Pollak (1895–96), Max Haissig (1895–98), Walther Ehrenhofer (1896–97), Josef Weiser (1897), Karl Pollak (1897–98), Hugo Ditz (1898–1904), Benjamin Max Margosches (1899–1909), Hugo Ditz (Adj.) (1905– 08), Anton Lissner (1908–10), Max Margosches (Adj.) (1909–13), Alois Indra (1911–18), Julius Mrazek (1913–14), Alfred Lang (WH) (1914–17), Alois Ludwig (WH) (1914–18), Hermann Hiltscher (WH) (1916–17), Robert Folgner (WH) (1917–20), Eugen Karpinsky (WH) (1917–18), Eugen Karpinsky (1919–20), Erwin Vogel (1918–20), Hermann Hiltscher (1919–20), Wilhelm Hinner (1922– 24), Wilhelm Kristen (1922–24), Erwin Scheinost (1924–27), Ludwig Friedmann (1925–26), W. Tschörner (1926–28), Karl Fuchs (1927–28), Bruno Krakowetz (1928–30), Rudolf Klatt (1928–37), Leo Wolf (1930–32), W. Michelitsch (1932– 38), Walter Friedl (1936–39), F. Kubelka (1938–39), Erich Uher (1939), Richard Svoboda (1938–39), Gustav Schoblik (1942–44), Margarethe Tischl (1942–43), Herbert Beier (1943–44).

Assistants of anorganic technical chemistry: Walter Friedl (1940), Richard Kunisch (1940–42), Erich Haas (WH) (1940), Johann Schmeiler (1941–42), Bruno Wagner (WH) (1941–42), Margarethe Tischl (WH) (1941–42).

Chemical technology II Gustav Ulrich was appointed the first Professor of Department chemical technology II (organic and textile chemical technology) in 1909. Hermann Mühlinghaus was his successor in 1936 and taught in Brno till 1945. The title of his department was organic technical chemistry during the years of the World War II. Elements of textile chemistry was taught in 1938–39 by Docent Robert Folgner.

Assistants of Department of chemical technology II: Robert Strebinger (1909–11), Hugo Wagner (1912–17), Walther Spietschka (1912–23), Karl Heinrich (1918–19), Rudolf Zahn (1921–23), Robert Folgner (1921–39), Franz Juda (1923–25), Erich Dobischek (1923–27), Gustav Schneider (1925–39), S. Zerda-

helyi (1927–33), K. Pavlik (1933–36), H. Schwarz (1938–39), Johann Haas WH (1939), Hermann Molisch (1939–40).

Assistants of organic technical chemistry: Maria Böhm (1940–44), Robert Prögler (1939–42), Wilhelm Wincor (1940).

Chemical technology III The third department of chemical technology was established in 1913 and Benjamin Max Margosches was appointed the first Professor. He went to Department of chemical technology I in 1920 and Privat-docent Anton Lissner was appointed his successor. He worked in Brno till 1942 and then he went to Prague. Anton Schäffner was the last appointed Professor of chemistry at the German Technical University in Brno. In 1942 he was appointed Professor of biochemistry and agricultural technology.

Assistants of Department of chemical technology III: Franz Juda (1922–23), Rudolf Horny (1923–24), Robert Neusser (1924–26), Fritz Neukomm (1924–31), Otto Burian (1925–27), Alexander Nemes (1926–30), Heinrich Leopold (1927–40), J. Blaschke (1930–37), W. Schwarz (1930–34), Gustav Schoblik (1934–39), O. Kahl (1937–39), Géza Kulcsár (1940–42), Inge Purde (WH) (1942), Ingeborg Tögel (1942–44), Marcel Truelle (1943–44).

6. Privatdocents of chemistry and chemical technology

Among Assistants and Privatdocents of chemical departments we can find some future Professors of universities in Austria or Germany.

Privatdocents of chemistry and chemical technology: Franz Czermak, 1862–69; Max Hönig, 1879–91; Theodor Morawski, 1881–82; Karl Weinreb, 1891–1934; Siegmund Feitler, 1893–98; Karl Frenzel, 1900–12; Gustav Ulrich, 1901–09; Richard Ehrenfeld, 1904–09; Hugo Ditz, 1904–10; Max Margosches, 1906–13; Adolf Gröger, 1907–18; Gustav Knöpfer, 1910–37; Anton Lissner, 1913–20; Hermann Suida, 1914–19; Albin Kurtenacker, 1914–23; Georg Grasser, 1919–22; Walter Fuchs, 1920–30; Ernst Murmann, 1924–39; Rudolf Lang, 1925–42; Josef Holluta, 1925–42; Karl Kürschner, 1926–39; Hans Kubina, 1930–31; Heinrich Leopold, 1938–45.

Siegmund Feitler (1859, Kaplice – 1920, Vienna) studied at universities in Vienna, Heidelberg, and Tübingen, where he obtained doctorate in 1889. He was Assistant of chemical technology (1890–95) in Brno and in 1893 he habilitated. During the years 1895–98 he was teacher at commercial school in Brno. Later he went to Vienna and taught at the new established Imperial Export Academy, which was transformed to the World Trade University after the World War I. At the same time he was Privatdocent of physical chemistry at the Vienna Technical University.

Hugo Ditz (1876, Poštorná – 1942, Lodž) studied at the Vienna Technical University (1894–98), where he obtained doctorate in 1902. During the years 1898–1904 he was Assistant and Adjunkt of chemical technology in Brno. In 1904 he habilitated with work *Bildung und Zusammensetzung des Chlorkals*. In

1908 he went to the Prague Technical University and during the years 1910–38 he was Professor of chemical technology and anorganic chemistry.

Hermann Suida (1887, Vienna – 1973, Salcburk) studied at the Vienna Technical University (1905–10), where he obtained doctorate in 1911. During the years 1910–18 he was Assistant at university, where he obtained doctorate in 1913. In 1914 he habilitated at the Brno German Technical University for organic chemistry. During the years 1922–45 he was Professor of chemical technology at the Vienna Technical University.

Georg Grasser (1883, Graz – ?) studied at Technical University and University in Graz. During the years 1919–22 he was Privatdocent in Brno and in 1921 he habilitated at the Vienna Technical University. In 1926 he was appointed Professor at the University of Sapporo. In 1932 he retired and lived in Munich.

Walter Fuchs (1891, Vienna – 1957, Aachen) studied at the Vienna University (1909–14), where he obtained doctorate in 1914. During the years 1919–26 he was Assistant of organic, agricultural and food chemistry at the Brno German Technical University and in 1920 he habilitated for organic chemistry. From 1931 he was Professor at the Aachen Technical University but in 1933 he had to leave Germany and went to USA, where he was Professor at the University in New Brunschwick and State College in Penssylvania. During the years 1949–57 he was Professor in Aachen again.

At study programmes of the Brno German Technical University we found the name **Franz Lafar**, who was Assistant of chemical technology during the years 1888–1890. Lafar was Professor at the Vienna Technical University from 1897–1917. It is difficult to say if Lafar worked in Brno because till 1890 he studied at the Technical University in Vienna.

Karl Scharrer (1892, Linz – 1959, Giessen) studied at the Brno German Technical University and the Vienna University during the years 1910–14. In Brno he obtained doctorate in 1920 and during the years 1919–21 worked as Assistant. From 1923 he was Assistant at the University of Agriculture in Freising. In 1931 he habilitated at the University of Giessen and from 1937 he was Professor of agriculture chemistry there.

Robert Strebinger (1886, Vienna – 1962, Vienna) studied at Technical University and University in Vienna (1905–09). During the years 1909–11 he was Assistant of chemical technology in Brno. Then he was Assistant at the Vienna Technical University and habilitated in 1919 there. From 1936 he was Professor of analytical chemistry.

7. Biographical data of Professors of physics and chemistry

Václav Hrubý (16th August 1813, Lesonice – 1889) was appointed Professor of experimental and technical physics at the Brno Technical College in 1849. He retired in 1867. Hrubý was doctor in medicine and philosophy and came to Brno from Vienna.

Robert Felgel (1st November 1837, Radlow in Galicia – 25th January 1901, Brno) studied at grammar schools in Opava and Tarnow. From 1855 he studied at Technical University and University in Vienna, where he obtained doctorate

in philosophy in 1866. From 1861 he was Assistant at University and secondary school teacher in Vienna. In November 1867 he was appointed Professor of physics in Brno. His works were devoted to astronomy (e.g. *Ueber die Gestalt einiger Beugungserscheinungen* (1866) or *Ueber Sternschnuppen* (1867)).

Gustav Jaumann (18th April 1863, Karánsebes – 21st July 1924, Ötztaler Alpen) studied at chemical faculty of the Prague Technical University from 1880 and during the years 1881–83 at the Vienna Technical University. During the years 1883–85 he studied at the Prague University, where he obtained doctorate (Einfluss rascher Potentialschwankungen auf den Entladungsvorgang) and habilitated in 1890. From 1885 he was Assistant at the Prague University (Professor Ernst Mach) and in 1893 he was appointed extraordinary Professor of experimental physics and physical chemistry. In July 1901 he was appointed full Professor of physics in Brno. From 1891 he was member of the Deutsche Akademie der Naturforscher Leopoldina and later he was appointed member of Vienna Academy. He died during a trip in the Alps.

Jaumann was Mach's pupil and Assistant. With Mach he wrote some textbooks for secondary schools (*Lehrbuch der Physik für Mittelschulen* (1889) and *Grundriss der Naturlehre* (1890)). He worked in experimental physics but later he was interested in theoretical physics (e.g. *Leichtfassliche Vorlesungen über Elektrizität und Licht* (1902), *Die Grundlagen der Bewegungslehre* (1905)). In 1911 he tried to obtain the chair at the Prague University, when the Professor of theoretical physics Ferdinand Lippich retired. We know that Albert Einstein was appointed.

Erwin Lohr (1st December 1880, Budapest – 23rd October 1951, Werfenweng) studied at grammar school in Budapest during the years 1891–99 and then at the Graz University in 1899–1901. During the years 1902–04 he studied at the Vienna University, where he obtained doctorate in 1904. In the next school years he studied at the Cambridge University (J.J. Thomson). From 1905 he was Assistant in Brno, in 1908 he habilitated and in 1912 he obtained the title of extrordinary Professor. In 1924 he was appointed full Professor and worked in Brno till 1945. After the World War II he lived in Germany. He wrote e.g. Atomismus und Kontinuitätstheorie in der neuzeitlichen Physik (1926), Vektor- und Dyadenrechnung für Physiker und Techniker (1939) and Mechanik der Festkörper (1952).

Bernhard Quadrat (12nd May 1821, Prague – 26th October 1895, Ustí nad Orlicí) studied classical philology, science and chemistry at the Prague University, where he was appointed Assistant of chemistry in 1846. He studied at the Prague Polytechnic, too, and was lecturer of analytical chemistry there. During the years 1849–71 he was Professor of chemistry in Brno. In 1871 he retired and later he taught at private secondary schools for agriculture in Doubravice and Ústí nad Orlicí. He was author of secondary school textbooks Lehrbuch der Chemie für Oberrealschulen ... (1853–54) and Lehrbuch der technischen Chemie (1862).

Eduard Linnemann (2nd February 1841, Frankfurt am Main – 24th April 1886, Praha) studied chemistry at the Heidelberg University, where he obtained doctorate and at the Technical University in Karlsruhe. He was Kekulé's Assistant at the Ghent University and from 1863 Pebal's Assistant at the Lemberg University. In Lemberg he was appointed extrordinary (1865) and full Professor (1869)

of general and pharmaceutical chemistry. During the years 1872–75 he was Professor of chemistry in Brno. Later he was Professor at the Prague University till 1886.

Josef Habermann (1st October 1841, Nový Jičín – 20th May 1914, Brno) studied at the Technical University in Vienna, where he was Adjunkt from 1865. During the years 1868–75 he taught at private school for future teacher. In May 1875 he was habilitated at the Vienna Technical University and in November he was appointed Professor of chemistry in Brno. He worked at the Technical University till 1912. He was chairman of *Mährischen Gewerbeverein* and during the years 1886–1900 Deputy of *Reichstag*.

Max Hönig (27th July 1852, Podolí u Litovle – 18th September 1938, Brno) studied during the years 1868–73 at Technical Universities in Brno and Vienna. From 1875 he was Assistant and from 1879 Privatdocent at the Brno German Technical University. In 1891 he was appointed extraordinary and in 1898 full Professor of agricultural chemistry. During the years 1912–24 he was Professor of organic, agricultural and food chemistry. In 1924 he retired and in 1926 he obtained honorary doctorate at the Brno German Technical University.

Karl Frenzel (12th April 1871, Brno – 1945, Pohořelice) studied during the years 1890–95 at the Brno Technical University and then at the Heidelberg University (1896–98), where he obtained doctorate (*Synthetische aromatische Aldehyde*). In 1900 he habilitated at the Brno Technical University and from 1912 he was Professor of anorganic, physical and analytical chemistry. During the years 1923–36 he taught anorganic and physical chemistry and from 1936 to 1939 he was Professor of physical chemistry. In 1939 he retired

Ludwig Anschütz (4th August 1889, Bonn – 6th December 1954, Würzburg) was son of Professor Richard Anschütz (1852–1937). During the years 1899–1908 he studied at grammar school in Bonn and then at Universities in Bonn (1908–10, 1913), Munich (1910–13) and Marburg (1913–20). In 1920 he obtained doctorate at the University in Marburg (Ueber Ringbildungen bei der Einwirkung von Alkali auf Additionsprodukte von Brom an 2'-Acetoxychalkone und o-Allyl-p-kresol). He was Assistant at Universities in Bonn (1913), Berlin (1923–24), and Marburg (1925–29), where he habilitated in 1927 for organic chemistry (Ueber aromatische Abkömmlinge der Phosphorsäure und der Hypothetischen Orthophosphorsäure P(OH)₅, insbesondere Verbindungen mit phosphorhaltigen Heterocyclen). In 1930 he was appointed extrordinary and in 1937 full Professor of organic chemistry at the Brno German Technical University. After World War II he worked at the Würzburg University.

Albin Kurtenacker (12th August 1886, Poštorná – 1st April 1962, Wiesbaden) studied during the years 1904–06 at the Brno German Technical University and during the years 1906–08 at the Technical University in Vienna. From 1908 he was Assistant and in 1911 he obtained doctorate (Beiträge zur Elementaranalyse) at the Brno Technical University. He habilitated in 1914 and in 1923 he was appointed extraordinary and in 1929 full Professor of analytical chemistry. In 1939 he retired because his wife was Jewess. From 1946 he worked in chemical

laboratory in Wiesbaden.

Josef Holluta (28th August 1895, Brno – 25th May 1973, Günzburg) studied during the years 1912–15 and 1918–19 chemistry at the Brno German Technical University. From 1918 he was Asistant of anorganic, physical, and analytical chemistry. In 1921 he obtained doctorate (*Die Reaktion Permanganat-Ameisensäure in schwach saurer, neutraler und alkalischer Lösung*) and in 1925 he habilitated for experimental physical chemistry. From 1939 he was supply teacher and from 1942 Professor of physical chemistry. From 1947 he worked at the Technical University in Karlsruhe and in 1956 he was appointed there.

Rudolf Lang (27th May 1887, Brněnec – 21st December 1953, Stuttgart) studied during the years 1905–06 at the Brno German Technical University and during the years 1907–12 at the Technical University in Berlin. From 1914 he was Assistant at the Brno Technical University, where he obtained doctorate in 1922 (Über eine neue jodometrische Methode zur Bestimmung des Kupfers) and habilitated in 1925. From 1939 he was supply teacher of analytic and anorganic chemistry and in 1942 he was appointed extraordinary Professor. After World War II he worked at the University in Innsbruck and in 1948 he retired.

Friedrich Marian (21st May 1817, Česká Kamenice – 23rd December 1869, Brno) studied three years at the Prague University and then at the Prague Technical University. He worked in sugar refinery and during the years 1853–67 he was teacher at *Realschule* in Loket. During the years 1867–69 he was Professor of chemical technology in Brno.

Karl Zulkowsky (7th April 1833, Vítkovice – 23rd December 1908, Prague) studied chemistry at the Vienna Technical University, where he was five years Assistant of chemical technology. During the years 1860–65 he was director in steelworks. From 1869 he taught chemical technology at the Brno Technical University and he was appointed Professor in 1870. In 1887 he went to the Prague German Technical University and worked there till 1904, when he retired.

Eduard Donath (8th December 1848, Vsetín – 30th May 1932, Brno) studied during the years 1866–69 at the Vienna Technical University and from 1870 to 1873 he was Assistant of chemistry at the Brno Technical University. In 1874 he was Assistant at chemical laboratory in Vienna and during the years 1875–88 he was Adjunkt at Mining Academy in Leoben. In 1888 he was appointed extraordinary and in 1890 full Professor of chemical technology at the Brno Technical University. He retired in 1920 but taught at the Technical University during the next years. In 1921 he obtained honorary doctorate at the Brno German Technical University and in 1927 at the Leoben Mining Academy.

Benjamin Max Margosches (30th April 1876, Jassy – 26th September 1928, Vienna) studied at grammar schools in Jassy and Bucharest. During the years 1894–98 he studied at the Technical Universities in Bucharest and Vienna, where he obtained doctorate in 1902 (*Jodometrische Studien*). From 1899 he was Assistant at the German Technical University in Brno and in 1906 he habilitated. In 1913 he was appointed extrordinary and in 1920 full Professor.

Ernst Galle (27th October 1888, Dolní Štěpánov – 19th December 1945, Brno) during the years 1898–1906 studied at *Realschule* in Olomouc and then during the years 1906–08 chemistry at the Vienna Technical University and from 1908 at the German Technical University in Brno. In 1910 he obtained doctorate (*Über Selbstentzündung der Steinkohle*). During the years 1910–11 he was Assistant of analytical chemistry and then he worked in Wagram and Hodolany. During the years 1918–21 he was technical director in Temesvar distillery, from 1923 he worked in Opava. In October 1929 he was appointed Professor of chemical technology in Brno. He wrote e.g. *Hydrierung der Kohlen, Teere und Mineralöle* (1932).

Gustav Ulrich (6th November 1863, Klagenfurt – 13th May 1943, Brno) studied at *Realschule* in Klagenfurt and then he studied chemistry at the Technical University in Vienna. He worked in chemical industry (Ebergassing, Biebrich am Rhein). In 1899 he was appointed teacher at textile secondary school in Brno and in 1901 he habilitated at the Technical University. In 1909 he was appointed Professor of the second department of chemical technology. In 1934 he retired. He is author of *Lehrbuch der chemischen Technologie der Gespinstfasern* (1924), *Technologie der Wolle* (1938).

Hermann Mühlinghaus (3rd May 1887, Brno – 1945, Nedvědice) studied during the years 1897–1905 at grammar school in Brno and from 1913 chemistry at the Technical University in Berlin. In 1922 he obtained doctorate (*Zur Kenntnis der aus höheren Olefinhalogeniden erhältlichen Kondensationsprodukte*). He worked in chemical and textile industry in Berlin, Düsseldorf, and from 1931 in Brno. In May 1936 he was appointed extraordinary Professor of chemical technology and in 1940 full Professor of organic technical chemistry.

Anton Lissner (21st October 1885, Velký Senov – 6th February 1970, Freiberg) studied during the years 1904–08 chemistry at the Technical University in Prague. From 1908 to 1910 he was Assistant of chemical technology and in 1910 he obtained doctorate (*Die chemische Charakteristik der Hangendgesteine von Braunund Steinkohlen*). During the years 1910–20 he was managing director of chemical laboratory in factory *Storek* in Brno. In 1913 he habilitated and in 1920 he was appointed Professor of chemical Technology at the Brno German Technical University. From 1942 to 1945 he taught at the Prague German Technical University. During the years 1945–55 he was Professor of anorganic chemistry at Mining Academy in Freiberg.

He wrote Die Chemie der Braunkohle (1953–56) and Quantitative Analyse (with O. Brunck in 1936). Together with E. Donath he published Kohle und Erdöl (1920).

Anton Schäffner (25th December 1900, Landshut – died in Russian captivity) studied during the years 1919–24 chemistry at the Munich University and in 1927 he obtained doctorate. From 1928 to 1936 he was Assistant of biochemistry at the Prague German Technical University, where he habilitated in 1937. In school years 1940–41 he was Assistant at the Prague University and in 1941 he was appointed Professor of biochemistry and agricultural technology in Brno.

Author's address:

Pavel Šišma

Department of Mathematics

Faculty of Science of Masaryk University

Janáčkovo nám. 2a

 ${\operatorname{Brno}}$

 ${\bf Czech\ Republic}$

Email: sisma@math.muni.cz