in the projected organization of physical research for the benefit and honor of the German people.[10]

29 Max von Laue: Fritz Haber † [February 16, 1934]


On the 9th of December, 1928, Fritz Haber’s sixtieth birthday, a small group of friends and co-workers came together in front of the Kaiser Wilhelm Institute of Physical Chemistry and Electrochemistry, his institute, and planted a linden tree in his honor, the Haber-Linde. He himself stayed in the South.[2] This was the only [official] celebration of his birthday.[3] Like other scientific journals, however, the Naturwissenschaften published a jubilee issue composed of contributions by

10 According to Prof. Friedrich → Hund, Göttingen, who was present at the time, Stark actually ended his speech with the following threat omitted in the published version: “and if you are unwilling, then I will use force!” (“und seid Ihr nicht willig, so brauch’ ich Gewalt!”) (Personal communication). See also Steenbeck [1977], p. 71, for another eye-witness account of this event.

1Otto → Hahn later wrote in his scientific autobiography that Max → von Laue alone had dared to publish an obituary on Haber, “which almost caused his involvement in embarrassing disciplinary proceedings”; see Hahn [1962]b, p. 91. However, other obituaries on Haber were published in German newspapers and physical chemistry journals, as documented in Stoltzenberg [1994], pp. 637–639.

2Fritz → Haber had been director of the → KWIPC since its foundation in 1911. Following the ‘Harnack principle’, the → KWG built its institutes around first-rate scientists like Haber. For a description of the ceremony see Hahn [1960], Goran [1967], p. 119, or Stoltzenberg [1994], pp. 641ff. Haber himself celebrated the occasion by taking a tour on the Nile river together with close family and friends.

3On January 29, 1935, the first anniversary of Haber’s death, Max → Planck organized a commemoration in his capacity as president of the German Chemical Society (Deutsche Chemische Gesellschaft) and the Deutsche Physikalische Gesellschaft (→ DPG). Although professors in the civil service were barred by decree of the Prussian Ministry of Culture from attending this meeting, which the Deputy of the Führer accused of being a provocation against the National Socialist state, the meeting was not cancelled. According to Lise Meitner, doc. 120, Max von Laue and Wolfgang Heubner were the only professors who dared to attend in person, but many others were represented by their wives. Leading managers of the → IG Farben trust attended as well as personal friends and some members of the KWIPC, KWIC, and KWIP. See, e.g., Hahn [1960], p. 6, [1962]b, p. 93; D. Hahn (Ed.) [1988], p. 155, or Vierhaus & vom Brocke (Eds.) [1990], p. 373, for a facsimile of the invitation sheet, and Festschrift [1961], pp. 193f., for the correspondence between the KWG and the → REM concerning this event. On the intervention of the REM, civil servants and members of the → NSDAP were forbidden to attend, and the press did not report on the memorial celebration; cf. also, Hahn [1968/86], p. 146: “This open demonstration of opposition to the regime was still possible at the beginning of 1935”. It was also widely reported in the foreign press: See, for instance, The New York Times, Jan. 12, 1936, 85, No. 28,477, p. 31: ‘Reich Scientists uphold Freedom’.
the most competent experts on Haber’s spheres of activity.\[^4\] Who­ever is inter­ested in seeing what a loss Haber was, both in war and in peace, to chemistry and physics, agriculture and technology, should take it up. But the reader will also discover there that Haber’s greatness is only due in part to his papers: He was maybe even greater as an institute director, in that he allowed his co-workers complete freedom to develop their talents, while still setting the general direction of the institute as a whole. At sixty his activity came by no means to an end. The topics and projects of his own recent investigations included the processes of combustion and explosions and the influence of atoms and chemical radicals on them, autoxidation and reduction in solutions also particularly in biological processes.\[^5\] Other projects from his institute that we will mention include Bonhoeffer’s and Harteck’s distinction between parahydrogen and orthohydrogen,\[^6\] as well as its application in the analysis of complicated chemical processes and magnetic properties. While it existed, his institute was renowned for its broad range of research in science.

On the 2nd of May, 1933, Haber handed in his resignation.\[^7\]

Themistocles went down in history not as the pariah at the court of the Persian king, but as the victor of Salamis.\[^8\] Haber will go down in history as the genius inventor of the procedure of binding nitrogen with hydrogen, which underlies the synthetic extraction of nitrogen from the atmosphere. He will be remembered as the man who, in the words used at the award of his Nobel Prize, had created in this way “an exceedingly important means towards promoting agriculture and human prosperity”. He will be remembered as the man who had made bread out


\[^5\] Autoxidation is the slow oxidation of certain substances on exposure to air, or the oxidation induced by the presence of a second substance which is itself undergoing oxidation. On Haber’s work on these topics see, e.g., Stolzenberg [1994].

\[^6\] The nuclei of the two hydrogen atoms contained in the parahydrogen molecule have opposite spins, whereas those in the orthohydrogen molecule have spins in the same direction. The existence of these two forms of hydrogen had been predicted in quantum mechanics, in particular by David M. Dennison: ‘A note on the specific heat of the hydrogen molecule’, *Proceedings of the Royal Society of London A* 115 (1927), pp. 483–486, as well as by Friedrich Hund. On the confirming experiments see the papers co-authored by Karl-Friedrich Bonhoeffer and Paul Harteck on parahydrogen and orthohydrogen in *Die Naturwissenschaften* 17 (1929), pp. 182, 321f., in *Zeitschrift für physikalische Chemie*, section B, Vols. 4 & 5 [1929], and in *Zeitschrift für Elektrochemie und angewandte physikalische Chemie* 35 (1929), pp. 621–623.

\[^7\] See doc. 15, actually dated April 30, 1933; cf. also, Hahn [1960], pp. 3ff., Goran [1967], pp. 161ff., and particularly Stoltzenberg [1994], chap. 13, for a detailed account.

\[^8\] The able Athenian statesman and creator of the Athenian fleet, Themistocles (c. 514–449 B.C.) led the Greeks to victory over the invading Persian fleet at the battle of Salamis on Sep. 28, 480 B.C. by sending Xerxes I (c. 519–465 B.C.) a cunning message that induced him to battle under unfavorable conditions. He fell into disgrace and was ostracized from Athens sometime between 476 and 471 B.C. and settled in Persia where he died.