BIOGRAPHY - NANOSCIENCE MEETS HISTORIOGRAPHY

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Can facts of history emerge from contemporary science? We believe they can - and we prove it! As scientists involved in current nanoresearch, we have uncovered facts of history in the course of work not otherwise history-related. The key to the discoveries has been - biography. Our curiosity was sparked by a simple question concerning one of the materials studied: nickel oxide, NiO, an archetypal nanoantiferromagnet [1]. Mineralogists have named NiO bunsenite, after Robert Wilhelm Bunsen (1811-1899). Was bunsenite originally discovered by Bunsen, then? - Where, and when? - As a matter of fact, neither the biographical records nor Bunsen's own writings support this longstanding assumption. Our own findings [2] point to another prominent 19th century chemist: the German-American Friedrich August Genth (1820-1893). Here, then, biography is at the fore, and from it, further facts of history emerge in quick succession: first, concerning the true discovery of the cobaltammines, rectifying a minor misconception in the history of experimental chemistry, which escaped such deserving historians even as G. B. Kauffman. Second, and more importantly, unforeseen facts emerge touching an apparently unrelated matter: the popular depiction of Justus Liebig's chemical laboratory at Gießen by Wilhelm Trautschold (1815-1876). Therein, 13 chemists some well-known among them - are portrayed with light strokes of the pen by an accomplished artist. Actually, a comparison with extant photographs is possible in several instances. And yet, two of the individuals have always remained unidentified. Only now, after a careful collation of biographical data on Genth and selected contemporaries, can we reasonably conjecture that one of the two missing names is, in fact, Genth's, and the other that of John Lawrence Smith (1818-1883), the first American to work under Liebig. - Thanks to biography, the list of the chemistry adepts standing at the bench in that venerable "hall of fame" is complete at last!

Keywords: Bunsen, Cobaltammines, Genth, Liebig, Nanoscience, NiO, Trautschold

References

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[2] a) Petrik, M. 2013. "Warum heißt Bunsenit Bunsenit – Mineralogie und Kristallographie von einst im Licht heutiger Nanoforschung." Paper presented at the annual meeting of the German Crystallographic Society (DGK), Freiberg, Germany, March 19-22. Published in *Z. Kristallogr. Suppl.* 33: 46-47. b) Petrik, M. 2013. *Friedrich August Genth und die Entdeckung der ersten NiO-Kristalle am Marburger chemischen Institut unter Robert Wilhelm Bunsen.* Göttingen: Cuvillier. ISBN 978-3-95404-350-7. Also in *Sammlungen zur Geschichte von Wächtersbach* 421: 18-49. ISSN 0931-2641.