

## **A Listing of the Contributions to the History of Analytical Chemistry in Europe made via the Division of Analytical Chemistry of EuCheMS**

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The DAC has organised lectures on the history of analytical chemistry in Europe via EUROANALYSIS and in a series of conferences on the Philosophy, History and Education in Analytical Chemistry; it has encouraged their subsequent publication along with related material. See Annual Reports below.

### **A EUROANALYSIS**

Papers presented at and those researched and written on related materials subsequent to individual EUROANALYSIS

**I (Heidelberg, 1972)**

**II (Budapest, 1975)**

F. Szabadvary, "The History of Analytical Chemistry in Hungary". In W. Fresenius (ed.), "Reviews on Analytical Chemistry, EUROANALYSIS II", Akademiai Kiado, Budapest, 1977.

**III (Dublin, 1978)**

D. Thorburn Burns, "Irish Contributions to European Analytical Chemistry", in D. M. Carroll, D. T. Burns, D. A. Brown and D. A. McDaid, (eds.), "Reviews in Analytical Chemistry, EUROANALYSIS III", Applied Science Publishers, London, 1979, pp. 1-12.

D. Thorburn Burns, "Richard Kirwan's Library: An Eighteenth-Century Chemist's Collection" in B. Cunningham and S. Fitzpatrick (eds.), "Treasures of the Royal Irish Academy Library", Royal Irish Academy, Dublin, (2008), pp.92-103.

D. Thorburn Burns, "Richard Kirwan (1733-1812), Chemist, Barrister and Philosopher. An exemplar of good practice in his time and for today", in S. Fitzpatrick (ed.), *Scientists and Science Collections at the Royal Irish Academy*, RIA, Dublin, (2012)

**IV (Helsinki, 1981)**

O. Makitie, "Johan Gadolin and his Contributions to Analytical Chemistry", in L. Niinisto (ed.), "Reviews on Analytical Chemistry, EUROANALYSIS IV", Akademiai Kiado, Budapest, 1982.

**V (Cracow, 1984)**

L. Gorski, "The History of Analytical Chemistry in Poland", in A. Hulanicki (ed.), "Reviews on Analytical Chemistry, EUROANALYSIS V", Akademiai Kadia, Budapest, 1986.

**VI (Paris, 1987)**

E. Roth, "Highlights in the History of Analytical Chemistry in France".

D. Thorburn Burns, "The Development of Apparatus for Spectrochemical Analysis 1550-1870: European Art, Craft and Science",

both papers in E. Roth (ed.), "Reviews on Analytical Chemistry, EUROANALYSIS VI", Les Editions Physique, Paris, 1988.

#### VII (**Vienna**, 1990)

D. Thorburn Burns, "Some People and Places Important in the History of Analytical Chemistry in Austria", *Anal. Bioanal.*, 397, 11-16, (2010).

#### VIII (**Edinburgh**, 1993)

D. Thorburn Burns, "Dark Ages to Enlightenment, Alchemy to Analysis: Progress in Scottish Chemistry within a European Framework", in D. Littlejohn and D. Thorburn Burns (eds.) "Reviews on Analytical Chemistry, EUROANALYSIS VII", Royal Society of Chemistry, Cambridge, 1994.

#### IX (**Bologna**, 1996)

D. Thorburn Burns, G. Piccardi and L. Sabbatini, "Some People and Places Important in the Analytical Chemistry of Italy", *Microchim. Acta*, 160, 57-87, (2008).

D. Thorburn Burns and L. Sabbattini, "Vittorio Amedeo Gioanetti (1729-1815), A Notable Italian Physician", *Chemist and Ceramicist*", *Chimica e L'Industria*, 91(6), 90-95, (2009).

D. Thorburn Burns and L. Sabbattini, "Robert Boyle (1627-1691): the Italian Connections. Part I, Robert Boyle's acquisition of knowledge about Italy and its scholarship", *Chimica e l'Industria*, 93(5), 136-141, (2011). Part II, "How Italy and other parts of Europe acquired knowledge about Robert Boyle and his works", *ibid.*, 93(6), 130-135, (2011).

#### X (**Basel**, 1988)

D. Thorburn Burns, "Swiss Contributions to Chemistry: Five Hundred Years of Progress, from Alchemy to a Modern Science", *Anal. Chim. Acta*, 393, 3-10, (1999).

#### XI (**Lisbon**, 2000)

D. Thorburn Burns and M. F. G. F. C. Camoes, "Distinguished People and Places in the History of Portuguese Analytical Chemistry", *Microchim. Acta*, 152, 137, (2005).

#### XII (**Dortmund**, 2002)

D. Thorburn Burns, R.K. Muller, R. Salzer and G. Werner, *Important Figure if Analytical Chemistry from Germany in Brief Biographies: From the Middle Ages to the Twentieth Century*, Springer, Heidelberg, (2014).

**XIII (Salamanca, 2004)**

D. Thorburn Burns, "Robert Boyle's Knowledge of Spain and his Citations of Spanish Authors", *Microchim. Acta*, 147, 165, (2005).

José M. Pavón, A. García de Torres, E.I. Vereda Alosa, L. F. Capitán-Vallry and D. Thorburn Burns "Analytical Chemistry in Spain from the Enlightenment to the Present Age", *Microchim. Acta*, 167, 1-20, (2009).

**XIV (Antwerp, 2007)**

D. Thorburn Burns and H. Deelstra, "Analytical Chemistry in Belgium: A Historical Overview", *Microchim. Acta*, 161, 41-66, (2008).

D. Thorburn Burns and H. Deelstra, "Some aspects of the rise of analytical chemistry in Belgium", *Anal. Bioanal. Chem.*, 391, 1113-1117, (2008).

D. Thorburn Burns and H. Deelstra, "Establishing a Tradition. The Origins of the IUPAC Congresses of Pure and Applied Chemistry", *Chem. Int.*, 33(4), 11-14, (2011).

D. Thorburn Burns and H. Deelstra, "The Origins and Impact of the International Congresses of Applied Chemistry, 1894-1912", *Microchim. Acta*, 172, 277-283, (2011).

H. Deelstra, D. Thorburn Burns, and M. J. Walker, "The adulteration of food, lessons from the past, with reference to butter, margarine and fraud", *Eur. Food Res. Technol.*, 239, 725-744, (2014).

**XV (Innsbruck, 2009)**

**XVI (Belgrade, 2011)**

D. Thorburn Burns and S. Bojović, "Some People and Places Important In the History of Analytical Chemistry in Serbia", *Anal. Bioanal.*, 403, 903-908, (2012).

**XVII (Warsaw, 2013)**

A. Hulanicki, "History of Polish Analytical Chemistry since 1945", *Anal. Bioanal. Chem.*, 406, 3639-3645, (2014).

**B International Symposium on the Philosophy and History of Analytical Chemistry**

(Vienna, 1985)

Only the Philosophical papers were published (see *Fresenius Z. Anal. Chem.*, 326, 301, (1987)).

**C Second International Symposium on the Philosophy and History of Analytical Chemistry**

(Vienna, 1989)

The proceeding of both sections published in Fresenius Z. Anal. Chem., 337, (1990).

E. Roth, "Etienne Francis Geoffroy's table of relations and the concept of affinity", p. 188,

M. Blondel-Megrelis, "The limits of the concept of affinity", p.203,

D. Thorburn Burns, "Highlights in the history of quantitation in chemistry", p. 205,

L. Niinisto, "Analytical instrumentation in the 18th century", p. 213,

A. Drago, "History of the relationship, chemistry-mathematics", p. 220,

J. A. Perez-Bustamante de Monasterio, "Highlights of Spanish Chemistry at the time of the chemical revolution of the 18th century", p. 225,

K. H. Koch, "Changes in analytical chemistry corresponding to the stage of industrial development", p. 229,

G. D'Ascenzo and N. Nicolini, "Evolution of paper chromatography: from Runge's perceptions to Tswett's adsorption", p. 232.

### **D 2<sup>nd</sup> FECHEM Conference on Education in Analytical Chemistry**

(Prague, 1992)

D. Thorburn Burns, "Some aspects of the history of education in Analytical chemistry: published syllabi and their authors, Shaw(1734), Watson(1771), Moyes (1784,1786), and Sullivan (1856)". Fresenius J. Anal. Chem., 347, 14-18, (1997).

### **E 3<sup>rd</sup> FECHEM Conference on Philosophy, History and Education in Analytical Chemistry**

(Vienna, 1995)

The proceedings were published in Fresenius J. Anal. Chem., 357, (1997).

R. G. Weissenhorn, "The "Sceptical Chemist" - Fundamental concepts in the history of the scientific process of chemical education", p. 138,

J. A. Perez-Bustamante, "A schematic overview of the historical evolution of Analytical Chemistry", p. 152,

J. A. Perez-Bustamante, "Analytical Chemistry in the discovery of the elements", p. 162,

H. Toftlund, "Historical demonstration experiments in Analytical Chemistry", p. 173,

D. Thorburn Burns, "Early problems in the analysis and determination of ozone", p. 178,

E. Pungor, "Ion- selective electrodes - history and conclusions", p. 184,

G-L. Radu and G-E. Baiulescu, "The beginnings of Analytical Chemistry in Romania", p. 189,

H. Hodrejarv, "History of Analytical Chemistry in Estonia (1800-1950)", p. 191.

#### **F 4<sup>th</sup> International Symposium on Philosophy, History and Education in Analytical Chemistry: "Analytical Chemistry and the Law"**

(Vienna, 1999)

The proceedings were published in *Fresenius J. Anal. Chem.*, 368, (2000).

D. Thorburn Burns, "Analytical Chemistry and the Law: Progress for half a millennium", p. 544,

W. Fresenius, "The position of the analyst as an expert: Yesterday and today", p. 548,

W. Vycudilik, "Historical development of expertise in forensic chemical analysis. General survey, illustrated by case studies from the Viennese Institute", p. 550.

#### **G Analytical Chemistry from Past to Future**

A symposium on the occasion of the 80th birthday of H. Malissa.  
(Vienna, 2000)

D. Thorburn Burns, "The Origins of Academic Chemistry in Austria and some Historical Highlights in the Austrian Schools of Analytical Chemistry", *Microchim. Acta*, 142, 137 (2003).

#### **H Education in Analytical Chemistry**

(Cordoba, 2001)

A meeting joint with the American Chemical Society.

The proceedings were published in *Microchim. Acta*, 142, 135-189 (2003).

D. Thorburn Burns, "Changes in the methods of teaching and learning chemistry over the period 1650-1850", *Microchim. Acta*, 142, 143, (2003).

#### **I DAC contributions to series "International Conference on History of Chemistry"**

D. Thorburn Burns, "Robert Boyle's acquisition of information about Hungarian mines, minerals, mineral waters and chemicals", in E. Vamos (ed.) "Proceedings of the 4th International Conference on History of Chemistry", Vol. 1, 7, Hungarian Chemical Society, Budapest (2005).

D. Thorburn Burns, "Alexander Wynter Blyth (1844-1921: A Medical Officer for Health and a Pioneering and Innovative Public Analyst", In E. Vamos (ed), "Proceedings: History of the Food

Chain”, Hungarian Chemical Society, Budapest, (2006), pp. 25-31. See also, on-line at, J. Assn. Public Analysts, 35, 17-29, (2007)

D. Thorburn Burns, “The English Latin and the Continental Publications of the Work of Robert Boyle”, in I. Malaquias, E. Homberg and M. E. Callapez (eds), “Proceedings: Chemistry, Technology and Society”, Sociedade Portuguesa de Quimica, Averio, (2006), pp. 352-362.

D. Thorburn Burns and B. Van Tiggelen, “The Evolving Identity of Chemistry”, Chem. Int., 30(1), 32-33, (2008).

D. Thorburn Burns, “Borderlines or Interfaces in the Life and Work of Robert Boyle (1627-1691): The authorship of Protestant and Papist revisited”, in R. R. Bertomeu-Sanchez, D. Thorburn Burns and B. Van Tiggelen, “Proceedings: Neighbours and Territories, The Evolving Identity of Chemistry”, Memoscience, Louvain-le Neuve, (2008), pp. 273-281.

7ICHC, “Consumers and Experts: Uses of Chemistry and Alchemy”, Sopron, 2009, no Proceedings. For, D. Thorburn Burns, “Sir Charles Cameron (1930-1921): Dublin’s Medical Superintendent, Executive Officer of Health, Public Analyst, and Inspector of Explosives”, see on-line at, J. Assn. Public Analysts, 37, 14-39, (2009).

### **Collaboration with LGC**

M. J. Walker, M. Burns and D. Thorburn Burns, “Horse Meat in Beef Products – Species Substitution 2013”, J. Ass. Public Analysts, 42, 67-106, (2013).

### **Special issues**

25 Years of the Working Party of Analytical Chemistry of the FECS, 1972-1997. Edited D.T. Burns, A. Gogala, H. Malissa and L. Niinistö. Slovenian Chem. Soc., Ljubljana 1999.

D Thorburn Burns and E.H. Korte, “The Background and Implications of the "New SI" for Analytical Chemists”, Journal of the Association of Public Analysts (Online), 41 28-44, (2013).