CATALOGUE 313

Chemists & Chemistry



IN NATURE AND SOCIETY FROM THE 18TH CENTURY TO MODERN TIMES



Montreux & Neuchâtel S W I T Z E R L A N D



130. Académie des sciences (France) ; Antoine-Laurent de LAVOISIER (1743-1794). Recueil de Mémoires et de pièces sur la formation et la fabrication du salpêtre. Paris : De l'Imprimerie de Moutard, 1786. ¶ Series : Collection des mémoires des savans étrangers, tome 11. Two parts in one volume. 4to. [2], VIII, 198 ; 682 pp. Lacks the half-title [called for by Cole]. Original full mottled calf, raised bands, ornately decorated spine, spine label; joints and extremities well worn, covers holding by cords. Small ink ownership stamp on title [COL. URB]. Good. [001]

\$ 525

"The Régie des Poudres et Salpêtres had the monopoly of refining saltpetre from 1775 until it was suppressed during the Revolution. Until his retirement in 1791 the leading light in it was Lavoisier, who seems to have written its publications."

Viij	TABLE FOOR LES MEMOIRES.	
M	MÉMOIRE fur la génération du Salpétre dans la craie, par M. le Duc de la Rochefoucauld P. 610	
EX	EXPÉRIENCES fur la décomposition du nitre par le charbon, par M. LAVOISIER P.625	
MI	MOIRE fur la fabrication artificielle du Sal-	

MÉMOIRE fur des terres naturellement falpétrées, exifiantes en France, lu à l'Académie, le 5 Juillet / 1777, par MM. CLOVET & LAVOISIER, Régif-feurs des Poudres & Salpétres. P. 503 PREMIÈRE PARTIE. Détail des expériences. . . 506 SECONDE PARTIE. Des conféquences qui réfultent des expériences précédentes, foit pour la théorie, 561

"In 1775 the Academy offered a prize of 4000 livres for a process for procuring an abundant supply of saltpetre, the announcement being written by Lavoisier. Altogether 66 papers were received, and the prize was finally awarded in 1782 to the brothers Thouvenel, who gave a full account of nitre plantations. The material was published in 1786 in one volume by the Academy."

"In it, Lavoisier describes, '*Expériences sur la décomposition du nitre par le charbon*' said to have been made in 1784 . . . " – Partington, *A History of Chemistry*, III, pp. 466-67.

« L'Académie a chargé ses Commissaires (Mm. Tillet, Cadet, Lavoisier & Sage), d'en faire des Extraits, & de les inférer dans la Partie Historique de ce Volume ; M. Lavoisier faisant les fonctions de Secrétaire da la Commission. »

"No paper submitted in the essay competition on the making of saltpeter (1778) having been judged deserving of the prize the date was extended to 1782. The essays of 1782, a history of the prize and a few other articles, four by Lavoisier, and included in this work." – Cole (who notes that the half-title denotes that this is tome XI of the *Mémoires de Mathématique et de Physique*).

"In 1775 the French scientific periodical, *Observations sur la physique*, published in its "literary news" an account of an "extraordinary prize proposed by the *Academie Royale des Sciences* for the year 1778," The prize was inspired by a report of the controller general of finances, Turgot, on the state of saltpeter manufacture and the diminution of its production. The king, it declared, wanted an improvement in production and at the same time an amelioration of the abuses of the *fouille*, and had decreed that a prize contest be offered under the auspices of the Academy." – Robert P. Multhauf, "The French Crash Program for Saltpeter Production 1776-1794." *Technology and Culture*, Vol. 12, No. 2 (Apr., 1971), pp. 163-181.

🗆 Cole 773; Duveen & Klickstein 237, 238; Partington III, p. 466.



131. BANG, Ivar Christian (1869-1918). Chemie und Biochemie der

Lipoide. Wiesbaden: J. F. Bergmann, 1911. ¶ 8vo. xi, 187, (4 ads.) pp. Contemporary quarter pebbled brown cloth over marbled boards, gilt-stamped spine title; library markings on spine over-painted. Ex-library bookplate and perforated stamp of Stanford University (title-page). Very good. [S10016]

\$45

"Bang is considered the founder of modern clinical microchemistry. Some of Bang's earliest investigations were on nucleoproteins and nucleic acid. He elucidated the structure of guanylic acid-previously isolated by Hanunarsten-as a compound of guanine, pentose, and phosphoric acid in equimolar proportions. This research was a major factor in revealing the framework of the nucleotides. He also performed early work on fat, protein, and nitrogen metabolism, so that he coincidentally developed methods useful to clinical chemistry as he demonstrated "normal" and "abnormal" (disease) chemical processes of the body." [Clinical Chemistry, 32/1, pp. 213-215 (1966)].



132. BERTHELOT, Marcellin (1827-1907). Chimie organique fondée sur

la synthèse. Paris : Mallet-Bachelier, 1860. ¶ 2 volumes. Large 8vo. CLVIII, 508; [vi], 842 pp. Later brown cloth, red leather spine labels; rubbed, joints mended with kozo. Light scattered foxing. Very good. [34]

\$75

The edition is guaranteed as original and not a pirated edition, signed by the author as a printed name from the publisher.

"In his monumental *Chimie organique fondée sur la synthèse*, in which he presented a review of his work in organic chemistry during the previous ten years. The work begins with an extensive historical introduction, which contains no more than a passing reference to Wohler's preparation of urea in 1828. One obtains the impression from the book that the author was the first to recognize the importance of synthesis in organic chemistry and that it was he who had undertaken the basic research." – *DSB*.

CONTENTS [in four parts, or 'books']: [TOME I] Livre I: Synthèses des carbures d'hydrogène. Chap. I. – Transformation des composes oxygènes du carbone en carbures d'hydrogène. II. – Transformation du sulfure de carbone en carbures d'hydrogène. III. – Transformation des chlorures de carbone en carbures d'hydrogène. IV. – Formation de carbures d'hydrogène plus compliques par l'action de la chaleur sur les acétates et sur les butyrates. Livre II: Synthèse des alcools et des corps qui en dérivent. Chap. I. – Synthèse des alcools proprement dits. Chap. II. – Dérives des alcools proprement dits. Chap. III. – Alcools polyatomiques. Chap. VI. – Des phénols. [TOME II] Livre III: Des principes sucrés. Chap. I. – Glycérine. – Synthèse des corps gras neutres. Chap. II. – Mannite et principes sucrés analogues. Chap. III. – Des sucres proprement dits. Livre IV: Des méthodes. Chap. I. – Des réactions. Chap. II. – Actions de contact et fermentations. Chap. III. – Isomérie. Chap. IV. – Des preuves de la synthèse et de ses applications physiologiques. Conclusion.



133. BERTHELOT, Marcellin (1827-1907). La Synthèse Chimique.

Septième édition. Paris : Anc. libr. Germer Baillière, Félix Alcan, 1891. ¶ Series : *Bibliothèque scientifique internationale*, XVII. 8vo. VIII, 294, [I-II] pp. Half-title, index. Contemporary quarter red morocco-backed blind- and gilt-stamped red cloth, raised bands, marbled endsheets (bound for the *Lycée de Marseille*, their name on upper cover). Rubber-stamp ownership mark of Lucien Weil – Capne. d'Artillerie. Very handsome copy. [38]

\$50

The first edition of Berthelot's chemical synthesis appeared in 1876. Prof. Henry E. Armstrong calls Berthelot the father of synthetic organic chemistry. He was able to

make contributions to the synthesis of organic compounds by means of elementary bodies. He also made additional contributions to thermochemistry.

□ *DSB* II, pp. 63-72; Partington IV, pp. 465-477. See: Prof. Henry E. Armstrong, F.R.S., "Marcelin Berthelot," *Nature*, Nov. 5, 1927, p. 659-663.



^[134] Berzelius



134. BERZELIUS, Jöns Jakob (1770-1848). De l'Emploi du Chalumeau dans les Analyses Chimiques et les déterminations minéralogiques. Traduit du suédois par F. Fresnel. Paris : Méquignon-Marvis, père & fils, 1837. ¶ 8vo. [4], 396 pp. Half-title, 4 folding engraved plates (showing blowpipes, lamps, and accessories), index. Contemporary quarter dark purple calf, gilt-stamped spine, marbled boards; corners showing, extremities shelf-worn. Very good. [45]

\$ 180

Early edition in French, from the original Swedish (1820), by Fulgence Fresnel (1795-1855). The first French translation was issued in 1821. This is the author's famous work on the use of the blowpipe (blowtorch) in chemistry and mineralogy.

Berzelius is best remembered for his experiments that established the law of constant proportions. An avid and methodical experimenter, Jöns Jakob Berzelius conducted pioneering experiments in electrochemistry and established the law of constant proportions, which states that the elements in inorganic substances are bound together in definite proportions by weight. Using his experimental results, he determined the atomic weights of nearly all the elements then known. Dealing with so many elements in so many compounds motivated his creation of a simple and logical system of symbols. – Science History Institute.

□ Cole 137 (1821 note); DSB II, p. 90-96; Partington IV, p. 146.



135. BRENNAN, Joseph H. (1902-1961) (owner). Catalog of Books and Pamphlets of Metallurgical, Geological and Chemical Interest: Georgii Agricolae De re Metallica libri XII... Niagara Falls: Union Carbide Corporation, 1961. ¶ 28 cm. 50 ff. Illus. Printed wrappers; slight browning, corners bumped. Scarce. [BL2659]

\$10

Joseph H. Brennan was Chief Metallurgist, Union Carbide Company. His collection of books on metallurgical, geological and chemical history, was donated to the Library at the State University of New York at Buffalo circa 1962.



136. BRISSON, Mathurin-Jacques (1723-1806). Elémens ou Principes

Physico-Chymiques, Destinés à servir de suite aux Principes de Physique ; A l'usage des écoles centrales. Paris : Bossange, Masson Besson, An VIII, 1800. ¶ 8vo. [4], XIV, 412 pp. Half-title, 6 engraved folding plates of apparatus, furnaces and crystal forms. Contemporary blind- and gilt-stamped speckled calf, spine embellished handsomely with 5 decorative florets, rules, green leather spine label; foot of spine mended with kozo, corners showing, shelf-wear. Very good. [67]

\$ 300

First edition of the first manual of physical chemistry. – Zeitlinger. "This comprehensive elementary textbook was written by Brisson for his students. He drew on the works of Lavoisier, Guyton de Morveau, Chaptal, Berthollet, Fourcroy, and others. Although it is a continuation of the author's *Traite élémentaire ou principes de physique*, 3 vols, 3rd edition. Paris, 1800 it is complete in itself. References generally mistake the title of the work for the title of the *Traite élémentaire* thereby giving the 4 volumes an incorrect title." – Cole.

"The place I occupy imposes several duties on me to fulfill: not only must I teach the science with which I am responsible, but I must also teach it, as much as is in my power, in the most profitable way for my students that I provide them with the means to facilitate their studies; that I tell them they think of research which would require too much time; finally, that I clearly before their eyes, and as briefly as possible, the knowledge with which I must entertain them. I have already fulfilled this task with regard to physics, by publishing my *Principles of Physics*: it remained for me to do the same in relation to chemistry: this is what I have just done by publishing my *Principles of Chemical-Physics*. The goal of my entire life's work has been to make myself useful." – author's preface.

After having given up on entering the orders, Brisson become the assistant to Ferchault de Réaumur and his cabinet of curiosities. From this rich collection of specimens of the natural sciences, and also from studying other private collections, Brisson developed his famous *Ornithology*, published in 1760-1763, before Buffon's *Natural History of Birds*. This six-volume work, which marked an important milestone in the scientific study of birds, presents a classification system that was used for nearly a hundred years. On the death of Réaumur, his collections were integrated into the King's cabinet and Brisson lost his job. With the support of Father Nollet, he obtained a position as physics professor at the College of Navarre.

□ Cole 201; *DSB* II, pp. 473-75; Duveen p. 100. Not in Neville.





137. BUNSEN, Robert [Wilhelm] (1811-1899). Methodes

Gazometriques. Traduction faite sous les veux de l'auteur par Th. Schneider. Paris : Victor Masson, 1858. ¶ 8vo. X, [2], 320 pp. Halftitle, 56 figures, VIII tables. Contemporary quarter chocolate brown morocco-backed marbled boards, raised bands, gilt title, gilt bands; corners showing. Ownership rubberstamp of Camille Arnoul, Saint-Ouen l'Aumône. Very good+. [71]

\$100

First edition in French, with additions and corrections by the author, translated by Th. Schneider, Strasbourg. "The author's primary intention was to bring together in a treatise the gasometric methods that he had been able to use from time to time in the course of his research, and thus to make them more accessible to practice. In carrying out this work, he soon recognized that it was necessary, to give them a broader scope, to generalize a host of methods which at first were only applicable to particular cases. To achieve this result, it was necessary to carry out a long series of experimental research, the details of which it was essential to cite in order to provide these methods with a certain scientific basis. The resources, previously so limited, available for gas analysis have thus been considerably increased \dots " – preface by the author.



"Between 1838 and 1846, Bunsen developed methods for the study of gases while he was investigating the industrial production of cast iron in Germany and, in collaboration with Lyon Playfair, in England. He demonstrated the inefficiency of the process: in the charcoal-burning German furnaces, over 50 percent of the heat of the fuel used was lost in the escaping gases: worse, in the coal-burning English furnaces, over 80 percent was lost . . . Bunsen compiled his research on the phenomena of

gases into his only book, *Gasometrische Methoden* (1857). This work brought gas analysis to a level of accuracy and simplicity reached earlier by gravimetric and titrimetric techniques. Dividing the book into six parts, Bunsen presented methods of collecting, preserving, and measuring gases; techniques of eudiometric analysis; new processes for determining the specific gravities of gases; results of investigations on the absorption of gases in water and alcohol using an absorptiometer he himself had devised; and results of experiments on gaseous diffusion and combustion. On the problem of gaseous absorption, Bunsen, assisted by several students, showed the experimental limits within which Henry's law of pressures and Dalton's law of partial pressures are valid." – DSBII pp. 586-590.

Robert Wilhelm Eberhard Bunsen was a German chemist. He investigated emission spectra of heated elements, and discovered caesium and rubidium with the physicist Gustav Kirchhoff.

PROVENANCE: Camille Arnoul, owner of a large paint manufacturing company, was mayor of Saint-Ouen l'Aumône, France (1900-1902).

□ Cole 225 (note); *DSB* II pp. 586-590.

Los Te		***
	CHIMIE	
man ma) лруыцийн	1
	A L'AGRICULTURE,	
8	PAR M. LE CONTE CHAPTAL;	
	Poir de Foner, auxien Ministre de l'Inérvieur, Grazif Corix de l'Ouère maya de la Légion-Monner, denenter de Salar-Stochd, Membre de l'Académie reprah des sciences de l'Institut, de la Société royale de Leadre, le la Société royale et centrale d'Apieutines de Davis, etc.	•
	DEUXIÈME ÉDITION, AUGMENTÉE.	
	· / Later - State	
annin annina	Some Becond.	
22 12		
	A PARIS,	
Mana Mana	CHEZ MADAME HUZARD, IMPRIMEUR-LIBRAIRE, BUE DE L'ÉPEROS, 5", 7.	1
	1829-	1
	the charge of the second	
	and the second second second	
		1.500

138. CHAPTAL, Jean-Antoine, comte de Chanteloup (1756-1832). Chimie appliquée à l'agriculture. Paris : Chez Madame Huzard, 1829. ¶ 2 volumes. 8vo. VII, [1], 461, [1]; [2], 418 pp. Original full diced calf, gilt-tooled border, decorative sine with space for 4 spine labels, but all missing (blind-stamping showing); spine ends showing wear. Bookplate of Henry B. H. Beaufoy, F.R.S., and manuscript signatures of G.E. Russell[?], May 1964. Good. [91]

\$135

Second edition, augmented. The first edition was issued in 1823. "The second and final edition in French of Chaptal's last book. Various matters covered in the first edition . . . have been expanded upon, and the text has been updated. The second edition, unknown to Chaptal's biographer and bibliographer, is rarer than the first." – Neville I, p. 259.

"This is a book that had some impact on agricultural chemistry. It includes many practical procedures such as preserving foods, making cider, beer and wine, making butter and cheese, etc. as well as the chemistry of soils, fertilizers etc." – Cole.

"In 1802, Chaptal purchased the Château de Chanteloup and its extensive grounds in Touraine, near Amboise. He raised merino sheep and experimented there in his later years on a model farm for the cultivation of sugar beets. He wrote his classic study of the application of scientific principles to the cultivation of land, the *Chimie appliquée à l'agriculture* (1823) . . ."

"Chaptal made few original contributions to pure chemistry, but he was one of the greatest chemical manufacturers of his age. He was always ready to apply the lessons of the chemistry laboratory to the factory. Chaptal wrote as an industrialist with great practical experience, whose concern with the fundamental understanding of nature was subordinate to his interest in controlling chemical reactions. Chaptal's voice was an important and influential one in advocating the introduction of science into the old craft procedures." – DSB.

CONTENTS: Tome 1 : (1) Vues générales sur l'atmosphère, considérée dans ses rapports avec la végétation. - (2) De la nature des terres et de leur action sur la végétation. - (3) De la nature et de l'action des engrais. - (4) De la germination. -

(5) De la nutrition des plantes. – (6) Des amendements du sol. – (7) Des assolemens. – (8) Tableau des produits de l'agriculture française. – (9) De la nature et des usages des produits de la végétation. Tome 2 : (10) De la conservation des substances animales et végétales – (11) Du lait et de ses produits – (12) Comparaison entre une nation agricole et une nation industrielle – (13) De la grande et de la petite propriété – (14) Encouragemens que le Gouvernement doit accorder à l'agriculture française – (15) De la fermentation – (16) De la distillation – (17) Moyens de préparer des boissons saines à l'usage des habitans de la



campagne – (18) Des habitations rurales pour les hommes et les animaux, et des moyens de les assainir – (19) Lessive économique – (20) De la culture du pastel et de l'extraction de son indigo – (21) De la culture de la betterave et de l'extraction de son suc.

PROVENANCE: [1] Henry Benjamin Hanbury Beaufoy (1786-1851), Vinegar factory owner, distiller, philanthropist and politician; MP for Hackney. Beaufoy was born in Switzerland. The family's brewery (first gin and then vinegar) was at Cuper's Gardens, Lambeth, United Kingdom. Beaufoy became a Fellow of the Royal Society as a result of his work on gun barrels. [2] "G.E. Russell" signed the book twice, with a date of May 1964.

□ Cole 250 (note); DSB, III, p. 203; Partington III, p. 558.



139. [Chemical Hazards] Renato DARDOZZI (1922-2003); Claes RAMEL [eds.]. Chemical Hazards in Developing Countries, 21-23 October 1993. The science of the total environment; An international journal for scientific research into the environment and its relationship with man. New York: Elsevier, 1996. ¶ Series: The Science of the Total Environment: An International Journal for Scientific Research into the Environment and its Relationship with Man, supplement to Vol. 188. Large 8vo. xx, 158 pp. Original printed wrappers. "With my best compliments" card signed in ink by Renato Dardozzi, co-editor and director of the Pontifical Academy of Sciences, laid-in. Very good. [S11296]

\$15

PARTIAL CONTENTS: Scientific Papers. Part I.-The Present State of Chemical Pollution in Developing Countries: [1] Chemical safety and Health in Latin America. An Overview, by J. FINKELMAN; [2] The current State of Pesticide Management in Sub-Saharan Africa, by J.J. ONDIEKI. Part II.-Ecotoxicology in Developing Countries. [3] Contamination of Aquatic Ecosystems, by A. JERNELÖV; [4] Contamination by Persistent Chemicals in Food Chain and Human Health, by F. BRO-RASMUSSEN; [5] Threats by Heavy Metals: Human and Environmental Contamination in Brazil, by J. COSTA-MOREIRA. Part III. Risk Assessment for Chemical in Developing Countries. [6] Methods of Risk Assessment, by U.G. AHLBORG; Pesticides Hazards in Developing Countries, by D. KOH and J. JEYARATNAM; [7] Green Revolution and Use of Chemical, by D. PIMENTEL.

Renato Dardozzi was Chancellor of the Pontifical Academy of Sciences. "In addition, he was charged with investigating the scandal surrounding Banco Ambrosiano, and was therefore a member of the Vatican high finance. In the course of this activity, he has secretly brought thousands of internal documents from the Vatican Bank to Switzerland and determined its will publication after his death in the testament. After the death of Dardozzi in 2003, the executor contacted the Italian journalist Gianluigi Nuzzi, who evaluated the documents and the results according to which a much more far-reaching involvement of the Vatican Bank Istituto per le Opere di Religion (IOR) results in many later scandals such as Tangentopoli," published in 2009. " An electronic engineer who held a top job at the state telecommunications company, Mgr Dardozzi was ordained priest at the age of 52. He worked in the IOR under Marcinkus, participated in the joint Vatican/Italian commission that examined the IOR's role in the collapse of Mr Calvi's Banco Ambrosiano, and witnessed Mr Caloia's uphill struggle against the personnel and practices of the Marcinkus era." Philip Willan, Whistleblower exposes Vatican Bank shenanigans, The Italian Insider, 2014.

Claes Ramel is a member of the Royal Swedish Academy of Sciences.

Part IV ____ Impact of Transfer CCI

(att 1). —	impact of Transfer of Chemical Technology of Developing Countries	
	Experience from Activities in the Third World to Improve the Knowledge and Ability to Determine Chemical Hazards S. JENSEN	S101
	Biotechnology and Production of Resistant Crops J. BARRETT	S106
	Chemical Safety Information for Developing Countries J.S. TAKALA	S112
	Opportunities and Constraints in Monitoring Chemical Hazards by Religious Organizations B.J. PRZEWOZNY	S130
Part V. —	Responsibility of Industrialized Countries and Recommendation for Future Actions	
	Human Health and Environmental Hazards Arising from the Use of Chemicals in Developing Countries	
	R. PLESTINA and M. MERCIER	S135
	A Few Remarks on the Dangers of Pollution in Developing Countries P.L. ZAMPETTI	S141
Part VI	Conclusions	S149



The Science of the Total Environment 188 Suppl. 1 (1996) \$3-529

the Science of the Total Environment

Chemical safety and health in Latin America: An overview

Dr. Jacobo Finkelman¹



the Science of the Total Environment

The Science of the Total Environment 188 Suppl. 1 (1996) \$37-544

The international mussel watch: a global assessment of environmental levels of chemical contaminants*

A. Jernelov Iwedish Water and Air Pollution Research Laboratory, Stockholm, Sweden



[139]



140. Conference on Fundamental Mechanisms of Photographic Sensitivity, University of Bristol; John Wesley MITCHELL (1913-2007) (ed.).

Fundamental Mechanisms of Photographic Sensitivity. Proceedings of a Symposium Held at the University of Bristol in March 1950. London: Butterworths Scientific Publications, 1951. ¶ Small 4to. viii, 347, [1] pp. Numerous figs., several photographic plates. Blue cloth, gilt spine; blind stamp and spine label call number of Mount Wilson Observatory, corners

bumped, else very good. SCARCE. [S8064]

\$ 25

FIRST EDITION. Conference on photographic sensitivity, especially of nuclear physics in photographs. The book is arranged in five sections: Physical Properties of Silver Halides. – Production and Properties of Silver Halide Grain in Photographic Emulsions – Photographic Sensitivity – Latent Image Formation – Nuclear Track Emulsions.

More than 60 persons contributed papers. Among the author-contributors, many being involved with nuclear physics and chemistry: Max Morand, Lud van Rossum, Joseph Rotblat (1908-2005), C. T. Tai, F.A. Roads, M. Bogaardt, Léopold Vigneron (1915-1987), Peter Howard Fowler FRS (1923-1996), D.H. Perkins, A.C. Coats, G.W.W. Stevens, Constance Charlotte Dilworth [Occhialini], Giuseppe Paolo Stanislao "Beppo" Occhialini (1907-1993), L. Vermaesen, G. Albouy, Henriette Faraggi (1915-1985), etc. The editor, John Wesley Mitchell, FRS, was a New Zealand-born physicist. In 1935 he sailed to England with an Exhibition Scholarship to take up a fellowship at Oxford University, where he worked under Professor Cyril Hinshelwood at Trinity College. In 1956 he was elected a Fellow of the Royal Society for "his work on the borderline between physics and chemistry about the adsorption of gases on surfaces, on catalysis and on the processes occurring in photographic emulsions. With the latter end in view he has investigated in some detail the properties of silver halide crystals; he was the first to demonstrate networks of dislocations in a transparent crystal by making silver precipitate along them so that they become visible under the microscope. He has also shown by careful experimental work the role of the dislocations in providing sensitivity centres and their relation to such sensitisers as silver bromide. He has shown why the grains of the emulsions grow in a plate-like form with the octahedral faces exposed, and demonstrated the presence in such crystals of three dislocations meeting in a point, which determines the crystal form."



Figure 1. Silver chloride deposit on mica after a few seconds exposure to the electron beam. Mica [100] azimuth



Figure 3. Silver chloride deposit on mica after three minutes exposure to the electron beam. Mica [100] azimuth



Figure 4. Specimen as for Figure 3 ofter a total exposure of ten minutes to the electron beam. Mica [100] azimuth



Figure 5. Specimen as for Figure 3 after a total exp-sure of fifteen minutes to the electron beam. Mica [100] azimuth

[140]



[141] Davy



141. DAVY, Humphry (1778-1829). Élémens de Chimie Agricole, en un cours de leçons pour le comité d'agriculture. Traduit de l'Anglais, avec un Traité sur l'art de faire le vin et de distiller les eaux-de-vie par A. Bulos. Paris : Ladrange ; l'Heureux, 1819. ¶ 2 volumes in 1. 8vo. 7, [1], 342 ; [4], 431, [1] pp. Half-title, 8 engraved plates (7 of which are folding), index; mild foxing, a few large spots. Contemporary quarter dark green morocco-backed marbled boards, flat-spine with elegant gilt decorations, some ornate, with orange leather spine label; label corner chipped, corners showing, extremities rubbed. Very good copy. [111]

\$ 300

First edition in French. Along with his translation, Jean-Antonin Bulos' contributed a section on the art of making wine and distilling brandy, « *Art de faire le vin et de distiller les eaux-de-vie,* » found in vol. II, pp. 306-410.

A popular and influential work based on lectures delivered from 1802 to 1812 before the Board of Agriculture. It is one of the first books to seriously apply chemistry to agriculture. Davy considers the chemical composition and theory of operation of manures. For the most part it is a compendium of the experiments and ideas of many writers, including Gay-Lussac, Thenard, Priestley and T. de Saussure." – Cole.

"Ce traité du grand chimiste anglais est le plus important ouvrage de chimie agricole avant le travail de Chaptal." ["This treatise by the great English chemist is the most important work on agricultural chemistry before Chaptal's work"] – Oberlé.



□ Aslin 36 (for the 1813 edition); Browne, *A Source Book of Agricultural Chemistry*, (1944), p. 210; Brunet VI, 4431 (for the 1829 edition); Cole 342 note; Goldsmiths'-Kress 22343; Huzard II, 17; Neville II, p. 335; Oberlé, *Une Bibliothèque Bachique*. *Collection Kilian Fritsch*, (1993), 150; Quérard II, 409.



 142. DEBUS, Allen G. (1926-2009); Robert P. MAULTHAUF (1919–2004).
 Alchemy and Chemistry in the Seventeenth Century. Los Angeles: William Andrews Clark Memorial Library, (1966). ¶ 8vo. 53 pp. Printed wrappers. A lot of ink underlining (by David Lindberg). Good (as is). [S10428]

\$5

Authors: Allen George Debus was an American historian of science, known primarily for his work on the history of chemistry and alchemy. He was awarded the George Sarton Medal (1994) and the Pfizer Award (1978) from the History of Science Society. He was also awarded the Dexter Award (1987) of the American Chemical Society and the Edward Kremers Award of the American Institute of the History of Pharmacy.

In 1985, Multhauf received the Dexter Award for Outstanding Achievement in the History of Chemistry from the American Chemical Society.



143. [DEE, John (1527-1608)] Deborah E. HARKNESS (1965-). John Dee's Conversations with Angels: Cabala, Alchemy, and the End of

Nature. Cambridge, UK: Cambridge University Press, 1999. ¶ 8vo. xiii, 252 pp. bibliography, index Gilt-stamped maroon cloth, dust-jacket; right spine edge lightly rubbed. Ownership signature of David Lindberg. Very good in near fine jacket. Scarce in hardback with jacket. ISBN: 052162228X

John Dee's angel conversations have been an enigmatic facet of Elizabethan England's most famous natural philosopher's life and work. Professor Harkness contextualizes Dee's angel conversations within the natural philosophical, religious and social *contexts* of his time. These conversations include discussions of the natural world, the practice of natural philosophy, and the apocalypse. – publisher.

Between 1581 and 1586, and again in 1607, Elizabethan England's most highly regarded natural philosopher, John Dee, talked with angels about the natural world and its apocalyptic end. With the aid of an assistant, or "server," and a crystal called a "showstone," Dee attempted to see through the dark days of his own time and into what he hoped was a bright and promising future. Scattered through several manuscript collections in the Bodleian and British Libraries, Dee's records of these conversations now represent one of the early modern period's most enduring intellectual mysteries: why would a Cambridge graduate who boasted the title "the Queen's philosopher" engage in such a seemingly fruitless, apparently groundless, and enormously time-consuming activity? Was Dee a gullible fool? Had he suffered a mental breakdown? Given these serious reservations about Dee and his conversations, historians of science have wondered if the angel diaries can yield any useful information to scholars specifically interested in the practice of natural philosophy in the late sixteenth century or illuminate the cultural and intellectual world of Elizabethans more generally. – Introduction.

Harkness is a professor of history and teaches European history and the history of science at the University of Southern California. She has published two works of historical non-fiction, *John Dee's Conversations with Angels: Cabala, Alchemy and the End of Nature* (1999) and *The Jewel House: Elizabethan London and the Scientific Revolution* (2007).

PROVENANCE: David C. Lindberg (1935-2015) was an American historian of science. His main focus was on the history of medieval and early modern science, especially physical science and the relationship between religion and science. Lindberg was the Hilldale Professor Emeritus of History of Science and past director of the Institute for Research in the Humanities, at the University of Wisconsin, Madison.



144. [DEE, John (1527-1608)] CLULEE, Nicholas H. John Dee's Natural Philosophy: Between Science and Religion. London:

Routledge, 1988. ¶ 8vo. xiv, 347 pp. Frontispiece, 39 illustrations, bibliography, index. Red cloth, gilt-stamped spine, dust-jacket, jacket head slightly chipped. SIGNED AND INSCRIBED from author to David C Lindberg, a science historian and recipient of the Sarton medal for achievements in that field. Ownership signature. Very good. SCARCE CLOTH ISSUE. ISBN: 0415006252

S 125

"Few figures in sixteenth-century science have proved more enigmatic than John Dee. His forays into angelic communication and cabalistic magic have long embarrassed historians attempting to see him as a founder of modern science, while his practical work on mathematics and navigation seems to disqualify him as a magus. Frances Yates sought the key to this com plex man in the "Hermetic tradition," claiming that Dee represented that blend of Neoplatonic, Hermetic, and cabalistic thought which was so influential in shaping the growth of modern mathematical and experimental science. Nicholas out to disprove this attractive but flawed hypothesis So far from being influenced by Hermeticism or Neoplatonism in his natural philosophy, claims Clulee, Dee utilized instead the ideas of medieval philosophers such as Roger Bacon. When Dee did read Hermetic texts, these authors distracted him from the world of nature to that of the spirit, and so Dee's use of Neoplatonic magic was in fact detrimental to his investigations of the natural world.

Clulee chooses four works as illustrative of Dee's natural philosophy: *Propaedeumata aphoristica* (1558), on physical astrology: *Monas hieroglyphica* (1564), on cabalistic symbolism: the *Mathematicall Praeface* (1570) to Sir Henry Billingsley's translation of Euclid; and, most awkward, *Libri mysteriorum* (1583-1589), Dee's manuscript recordings of his conversations with angels. The decision to use these four texts raises some questions. Are they representative of Dee's intellectual development? Two at least (*Monas* and *Mathematicall Praeface*) were written in extreme haste, the *Preface* had a specific popularizing agenda, and *Libri mysteriorum* has little coherence and was never intended for public view. Clulee argues that these four works constitute a complete expression of Dee's natural philosophy. Perhaps a less programmatic approach might have yielded an analysis of Dee's complete mental world.

This caveat aside, this is a masterful exposition of several extremely complex texts." – Lesley B. Cormack, Book review, *Isis*, Volume 82, Number 1, March 1991.

PROVENANCE: David C. Lindberg (1935-2015) was an American historian of science. His main focus was on the history of medieval and early modern science, especially physical science and the relationship between religion and science. Lindberg was the Hilldale Professor Emeritus of History of Science and past director of the Institute for Research in the Humanities, at the University of Wisconsin, Madison.





Signed by Fourcroy

145. FOURCROY, Antoine François de (1755-1809). Philosophie Chimique, ou Vérités Fondamentales de la Chimie Moderne, Disposées dans un nouvel ordre. Paris: Chez Du Pont Imprimeur-Libraire, l'an III de la République, [1795]. ¶ 8vo. 174 pp. Faint stain to p.174, some light foxing. Original light blue paper-backed boards; covers foxed, but binding firm. SIGNED BY THE AUTHOR. Very good. [S11102] \$400

Second edition, the Avis, verso of the title-page, is signed by Fourcroy. COLE notes that no copy of the first issue of 1792 is signed. ". . . [In] his article "Axoimes" in the second volume of *Encyclopedie methodique* (1792) he classified the chief facts of chemistry under twelve headings. When published separately as a little book entitled *Philosophie Chimique* (1792), this proved to be a very popular summary of antiphlogistic chemistry and was translated into four languages" (*DSB*, Vol. V, 90).

"To certify the authenticity of the second edition, Fourcroy signed every copy." 'It was practically identical to the first, the only significant difference being the addition of arsenites to the list of salts.' [Smeaton, *Fourcroy*, p. 194]. The edition is set is larger type than that of 1792. This is the author's "remarkably lucid exposition of the new antiphlogistic system of chemistry." Smeaton states that this work was without rival in its clarity, further, it was immediately successful.

Antoine François de Fourcroy was a French chemist and contemporary of Antoine Lavoisier. He was interested in both animal and vegetable chemistry, as well as inorganic experiments. "Like most French scientists, Fourcroy held liberal opinions and supported the moves that led to the French Revolution." He assisted the government in repairing the economy by "applying his chemical knowledge" to extracting copper from tin for coinage and cannon and shipbuilding, and ended his life as a councillor of state (*DSB*, Vol. V, 91-3).

Cole 470: "The second edition is essentially the same as the first." Caillet 4127;
 Duveen 225; Edelstein 903; Ferguson I, p. 287; Neville p. 470; Partington III, p. 538.

I S. Tous les exemplaires de cette seconde édition, seront signés de l'Auteur.



[145] Fownes & Bridges



146. FOWNES, George, FRS (1815-1849); BRIDGES, Robert (ed.). Fownes'

Manual of Chemistry, Theoretical and Practical. Revised and corrected by Henry Watts. A new American from the twelfth English edition. Philadelphia: Henry C. Lea, 1878. ¶ Thick 8vo. xxviii, (25)-1027, 12 pp. Folding color frontis., 177 illustrations, index, ads. Original brown cloth, gilt-stamped spine title; extremities rubbed, top spine end frayed. Ownership signature on title-page of J.W. Park, MD, 1880. Very good.

\$20

"In 1844, [Fownes] published a chemistry textbook. In 1842, he had been awarded the Royal Agricultural Society's prize for his essay Food of Plants. In 1844, he received the first Actonian Prize (of 100 guineas) for his essay *Chemistry as Exemplifies the Wisdom and Beneficence of God.* This work was compared to the *Bridgewater Treatises* and Fownes was referred to as "a thorough chemist, a sound philosopher, and an enlightened Christian." He was elected a fellow of the Royal Society in 1845, but that same year resigned from his academic positions due to ill health. For his researches in organic chemistry, he was awarded the Royal Society's Royal Medal in 1847. He spent time in Barbados from 1847, in an attempt to treat the pulmonary disease afflicting him, but, on his return to England in 1848, he caught a cold and died at his father's house in Brompton at the age of 34." [Wikip.]

Fownes' Manual of elementary chemistry (1844) was a very popular textbook for half a century." *DSB*, V, pp. 103-104.

Besides Bridges' [the editor for this edition] papers on chemistry, many of which appeared in the *American Journal of Pharmacy*, he wrote reviews of books on chemistry for the *American Journal of Sciences*; he edited several American editions of Fownes's "*Elementary Chemistry*..." (1852); also the American edition of Graham's "*Elements of Chemistry*," and assisted George B. Wood in preparing the twelfth (1865), the thirteenth (1870) and the fourteenth (1877) editions of the United States Dispensatory.



[147] Gorup-Besanez



147. GORUP-BESANEZ, Eugen Franz von (1817-1878). Lehrbuch der

Chemie, für den Unterricht auf Universitäten, Technischen Lehranstalten und für das Selbststudium. . . in drei Bänden. Erster Band: Lehrbuch der Anorganischen Chemie . . . Fünfte, verbesserte Auflage mit zahlreichen in den Text eingedruckten Holzstichen und einer farbigen Spectraltafel. Braunschweig: Friedrich Vieweg und Sohn, 1873. ¶ 8vo. X; 691, [1], [XI]-XXIII, [1] pp. NOTE: pages 113-128 mis-bound in front of page 1. 1 color lithographic plate (small hole puncture), 177 figs.; foxing. Contemporary quarter dark green cloth, dark green paper over bds.; rubbed. Very good. [187]

[with]: Lehrbuch der Chemie, für den Unterricht auf Universitäten, Technischen Lehranstalten und für das Selbststudium. Fünfte, auf Grundlage der neueren Theorien vollständig Umgearbeitete und Verbesserte Auflage. Braunschweig: Vieweg, 1876. ¶ 8vo. [IX]-XVI, 753, [1] pp. 10 figures, index; corner waterstained, some foxing. Contemporary quarter maroon morocco, black- and gilt-stamped spine, marbled boards, "II"; shelf-worn, rubbed. Good+.

[with]: Lehrbuch der Chemie, für den Unterricht auf Universitäten, Technischen Lehranstalten und für das Selbststudium . . . in drei Bänden. Dritter Band: Physiologische Chemie. Zweite, vollständig Umgearbeitete und Verbesserte Auflage . . [series title]. Lehrbuch der Physiologischen Chemie. Zweite . . . Braunschweig: Vieweg, 1867. ¶ 8vo. XX, 824 pp. 2 figs., 1 chromolithographic plate of color spectra, 3 folding plates, index; the folding pls. with wear and staining, yet intact, occasional foxing. Contemporary quarter brown morocco, raised bands, black- and gilt-stamped rules, gilt titles, marbled boards, "G"; boards heavily shelf-worn. Good+.

3 volumes: \$ 85

Fifth edition, improved. A mis-matched set, printed editions and bindings both. This is the complete three-volume set called *Lehrbuch der Chemie* on inorganic chemistry, and Physiological chemistry.

LEHRBUCH Der	LEHRBUCH
ORGANISCHEN CHEMIE	ANORGANISCHEN CHEMIE
FÜR DEN UNTERRICHT AUF UNIVERSITÄTEN, TECHNISCHEN LEHRANSTALTEN UND FÜR DAS SELBSTSTUDIUM	FÜR DEN UNTERRICHT AUF UNIVERSITÄTEN, TECHNISCHEN LEHRANSTALTEN UND FÜR DAS SELBSTSTUDIUM
BEARBEITET VON D.n. E. F. V. GORUP-BESANEZ, ordentlicher Professor der Chemie und Director des chemischen Laboratoriums an der Tierericht en Dieneric	NIT BESONDERER BERÜCKSICHTIGUNG DER NEUEREN THEORIEN UND MIT EINSCHLUSS DER EXPERIMENTELLEN TECHNIK
FÜNFTE, AUF GRUNDLAGE DER NEUEREN THEORIEN VOLLSTÄNDIG IMORIEDEUTMEN UND VERDESSEPTE AUM 1400	BEARBEITET VON DR. E. F. V. GORUP-BESANEZ, ordentlieber Professor der Chemie und Director des chemischen Laboratoriums an der Universität zu Erlangen.
MIT IN DEN TEXT EINGEDRUCKTEN HOLZSTICHEN.	FÜNFTE VERBESSERTE AUFLAGE.
BRAUNSCHWEIG, DRUCK UND VERLAG VON FRIEDRICH VIEWEG UND SOHN. 1876.	BRAUNSCHWEIG, druck und verlag von friedrich vieweg und sohn 1873,

Eugen Franz von Gorup-Besanez, a German chemist, receiving his doctorate in Munich in 1842, then studied chemistry in Munich and at the University of Göttingen. He taught at the Friedrich-Alexander-Universität Erlangen.


148. LAVOISIER, Antoine-Laurent (1743-1794). Opuscules Physiques et

Chimiques. Seconde édition. Paris: Deterville, An IX [1801]. ¶ 8vo. (197 x 122 mm) xxx, [2], 443 pp. Three folding engraved plates. Speckled edges; paper flaws in K2 and O5 affecting text. Quarter-bound in 19th century half calf over brown marbled boards, raised bands, gilt-stamped title and gilt-rules on spine; covers off. Housed in a custom folding chemise and red quarter morocco and cloth slipcase, raised bands, gilt rules and gilt-stamped titles; light shelf wear. [261]

\$850

Second edition, second issue. "An entirely different issue of the usual 'Seconde édition.' Deterville has reprinted the entire book with the errata corrected in the text and the plates re-engraved by Tardieu l'aine Rue de Sorbonne, No. 385. In the original edition the engraver had been de la Gardette who, incidentally, engraved Lavoisier's bookplate. The half-title with the titre de relais is present as before. The remark, which appears at the end of the prior issue 'Le Privilege du Roi se trouve aux Memoires de l'Academie Royale del Sciences' is here omitted." [Duveen & Klickstein].

This is Lavoisier's first major work. In this work on combustion and calcination, which first appeared in 1774, Lavoisier first published his investigations into the nature and properties of gases, in connection with numerous experiments, and laid

the basis of his antiphlogistic theory. Lavoisier gives a history of gases and a detailed account of his experiments. It was in this pioneer work that he broke ground that was new to him and asserted himself on an important question that was in controversy. The *Opuscules*, one of Lavoisier's four major works, resulted from his study on combustion and experiments with phosphorus and sulfur and the conversion of calces into metals. The work consists of a historical section and an introduction on gases; the second part describes his experiments dealing with the problems of combustion, calcination and air fixation.



"Although Priestley isolated oxygen, it was Lavoisier who discovered its real significance. He showed the true nature of the interchange of gases in the lungs and exploded Stahl's phlogiston theory." [Garrison and Morton].

A native Parisian, Lavoisier was one of the most important scientists of the 18th century. Because of his loyalty to the Ancien Regime, Lavoisier fell into disfavor with the ruling National Assembly. He and his father were both arrested on 24 December 1793, tried on 8 May 1794 and executed by guillotine the same day. As the apocryphal story goes, Lavoisier appealed at his trial for time to complete some scientific work, at which the presiding judge replied, "The Republic has no need of scientists." Authentic, however, is the remark attributed to Lagrange, the day after

Lavoisier's execution: "It took them only an instant to cut off that head, and a hundred years may not produce another like it."

The half-title reads: "Cet ouvrage, a l'exception des tables, fut imprime pendant la détention du citoyen Lavoisier. Il ne faut donc pas être surpris si l'édition n'en est pas belle ; on se rappelera sans peine qu'à cette époque les matières premières manquoient pour l'impression." [trans.: "This work, with the exception of the tables, was printed during the detention of Citizen Lavoisier. One should not be surprised if the edition is not beautiful; one will note without sorrow that this impression is without the errors of the first edition."].

PROVENANCE: From the celebrated Robert Honeyman IV library, sold at auction by Sotheby Park Bernet & Co., May 12, 1980, Part V, Lot # 1933.

□ BM Readex, Vol. 14, p. 998; Cole 770; DSB, Vol. VIII, pp. 66-91; Duveen p. 342; Duveen & Klickstein 123; Norman 1288 (1st ed.); Partington III 372 V; Poggendorff I 1392.



149. LAVOISIER, Antoine Laurent (1743-1794) ; Pierre Simon Marquis de LAPLACE (1749-1827). Mémoire sur la Chaleur. Paris : Gauthier-Villars, 1920. ¶ Series : Les maîtres de la pensée scientifique, collection de mémoires publiés par les soins de M. Solovine. Small 8vo. 78 pp. 2 photogravure plates. Original brown printed wrappers; upper joint mended with kozo. Very good. [263]

\$15

Reprinted from Mémoires de l'Académie des sciences, année 1780, pp. 355-408.

"This memoir is the result of experiments on heat that M. de Laplace and I conducted together, M. de Laplace and I, during the winter of last year. season did not allow us to carry out a greater number of experiments. We had proposed to wait, before publishing anything on this subject, until a colder winter to repeat them with all possible care, and to multiply them further. but we have decided to make this work public, albeit very imperfect, by the consideration that the method we have used may be of some use in the theory of heat, and that its precision and generality precision and generality may lead to its adoption by other physicists who, in northern Europe, have winters that are very favorable to this kind of experiment." – Authors (translated).

The relationship between combustion and respiration had long been recognized from the essential role which air played in both processes. Lavoisier was almost obliged, therefore, to extend his new theory of combustion to include the area of respiration physiology. His first memoirs on this topic were read to the Academy of Sciences in 1777, but his most significant contribution to this field was made in the winter of 1782–1783 in association with Laplace. The result of this work was published in a memoir, "On Heat." [1780/3]. Lavoisier and Laplace designed an ice calorimeter apparatus for measuring the amount of heat given off during combustion or respiration. The outer shell of the calorimeter was packed with snow, which melted to maintain a constant temperature of 0 °C around an inner shell filled with ice. By measuring the quantity of carbon dioxide and heat produced by confining a live guinea pig in this apparatus, and by comparing the amount of heat produced when sufficient carbon was burned in the ice calorimeter to produce the same amount of carbon dioxide as that which the guinea pig exhaled, they concluded that respiration was, in fact, a slow combustion process. Lavoisier stated, "la respiration est donc une combustion," that is, respiratory gas exchange is a combustion, like that of a candle burning. – Wikip.

□ Duveen & Klickstein 222.

AGRICULTURAL, BOTANICAL, AND CI	TEMICAL [1181]
RESULTS OF EXPERIMENT	TS XXVIII. And submit Retarried and Chinical Parate of Konstances on the Word.
-08 THE	Reclayer of Persurvat Machine, conduct from one than Trenty Years in we- cossion on the Same Long.—Part II, The Botsnied Rends.
MIXED HERBAGE OF PERMANENT	Y MEADOW, J. H. GHARRY, Ph.D., F.R.S., F.C.S., F.L.S., and M. T. Marrian, M.D., F.R.S., F.L.S.,
CONDUCTED FOR MORE THAN TWENTY YEARS IN S	Beorinal June 17,-Beal June 17, 1006
ON THE SAME LAND.	
	Par II-Carteria
PART IL-THE BOTANICAL BESULT	Idrobation : Says of the Experimenta, and Mole of Experimentary
BY	Dataset 107-1 1 1 104 Remark 107-1 1 116 1000 Statuse 1076-1 1000 1000 1000
J. H. GILBERT, PA.D., F.R.S., F.C.S., FLS.	The Alleyed Antagenius between Plants The Alleyed Antagenius between Plants Khôli and Confermation of Plants: Constantions by many of which day maintine or improve theory particles, or manum in complementation and attains
M. T. MASTERS, M.D., F.R.S., F.L.S.	Harlines
	Laws
Pres of Philosophical Transactions of the solar solar	Association Absorber of Predominance of Certain Species
(Windell Hosp.	Tare Guaran (p. 1220) Tare Instructure Paren. 1. Actionation stortion
Monaccus	9. Magazawa printriti - - - - 1231 8. Appende religioni - - - 1233 4. Wolces baseban, - - 1231
	A state case - to
and the second se	
0	

150. LAWES, Sir John Bennet (1814-1900), Joseph Henry GILBERT (1817-1901); M. T. MASTERS. Agricultural, botanical, and chemical results of experiments on the mixed herbage of permanent meadow, conducted for more than twenty years in succession on the same land. Part II. The botanical results. Separate from: Philosophical Transactions of the Royal Society, Part IV, 1882. ¶ 299 x 239 mm. 4to. [ii], 1181-1413, [1 blank] pp. Numerous tables (including 3 folding). Original printed wrappers; top cover lacking. Ex library rubber stamps. Very good. [S4219]

John Bennet Lawes, a pioneer of science, farming and industry, and Joseph Henry Gilbert collaborated for more than fifty years as they built the Lawes's estate of Rothamsted into a world-famous institution of agricultural chemistry. In 1834 Lawes inherited the manor and estate of Rothamsted after studying at Eton and Oxford without taking a degree. Lawes used what he learned from agricultural experiments to produce "super-phosphate" and other products by which he became quite rich. In 1889 Lawes put Rothamsted under the control of the Lawes Agricultural Trust, with an endowment of \pounds 100,000, so that its work would not cease with his death.

"In 1843 he started on a regular basis the Rothamsted agricultural experiment station; and in June of that year called to his aid, as coadjutor and technical adviser,

Dr. (afterwards Sir) Joseph Henry Gilbert. Together Lawes and Dr. Gilbert instituted and carried out a vast number of experiments of enormous benefit to the agricultural community at large, the details of which were recorded in the 'Philosophical Transactions of the Royal Society,' the Journals of the Chemical Society and of the Royal Agricultural Society, and other publications. Two main lines of inquiry were followed — the one relating to plants, the other to animals. In the former case the method of procedure is described in the official 'Memoranda' in which it was shown how endeavours had been made 'to grow some of the most important crops of rotation, each separately, year after year, for many years in succession on the same land, without manure, with farmyard manure, and with a great variety of chemical manures, the same description of manure being as a rule applied year after year on the same plot. Experiments on an actual course of rotation without manure and with different manures were also made: 'wheat, barley, oats, beans, clover and other leguminous plants, turnips, sugar beet, mangels, potatoes, and grass crops having been thus experimented on. The main object of the experiments on animals (commenced in 1847) was to ascertain how they could be most economically fed for human consumption; but incidentally information of great value was obtained towards the solution of such problems as the sources in the food consumed of the fat produced in the animal body, the characteristic demands of the animal body (for nitrogenous or non-nitrogenous constituents of food), in the exercise of muscular power, and the comparative characters of animal and vegetable food in human dietaries." [DNB].

See: Llinos Thomas, Sir John Bennet Lawes, Pioneer of Rothamsted Experimental Station. Harpenden History; DNB.

AGRICULTURAL, BOTANICAL, AND CHEMICAL

RESULTS OF EXPERIMENTS

MIXED HERBAGE OF PERMANENT MEADOW,

ON THE

CONDUCTED FOR MORE THAN TWENTY YEARS IN SUCCESSION ON THE SAME LAND.

Trevor H. Levere **Trevor H. Levere Chemists and Chemistry** Chemists and Chemistry in Nature and Society in Nature and Society 1770-1878 1770 - 1878VARIORUM 1994

151. LEVERE, Trevor Harvey (1944-2022). Chemists and Chemistry in Nature and Society, 1770-1878. Aldershot and Brookfield: Variorum, 1994. ¶ Series: Variorum Collected Studies Series, CS439. 8vo. xiv, 298 pp. Frontis. port. of Levere, illustrations, index. Blue cloth, gilt-stamped cover and spine titles. Bookplate of the Burndy Library. Fine. [BL2493] \$40

Trevor Harvey Levere FRSC was an English-born, Canadian historian of science, specializing in the history of chemistry. "Trevor was a world-renowned historian of chemistry with wide-ranging interests that included the relations between science and Romanticism, and the histories of science and Arctic exploration. Little escaped his historical gaze. The range of Trevor' scholarly pursuits notwithstanding, his writings embodied a core set of scholarly values — thorough research, meticulous documentation, and accessible and elegant writing. His many books are exemplars of the writer's craft. Over a long and immensely productive career, he supervised 19 doctoral candidates and held visiting fellowships in Paris (CNRS), Cambridge (Clare Hall), MIT (the Dibner

Institute), and Barcelona (Universitat Pompeu Fabra). He also served as the editor of Annals of Science for fourteen years and co-editor, with David Knight, of the Ashgate Series "Science, Technology and Culture 1700-1945"." [Adriana Leviston, In Memoriam, Trevor H. Levere (1944-2022)]. University of Toronto.

Contains many of Levere's papers gathered here in one volume, arranged in five sections. CONTENTS: [Sec. 1] THE CHEMICAL REVOLUTION: – I: Martinus van Marum (1750-1837): The introduction of Lavoisier's chemistry into the Low Countries. Janus 53. Leiden: E. J. Brill, 1966. – II: Friendship and influence: Martinus van Marum, F.R.S. Notes and Records of the Royal Society of London 25. London: The Royal Society, 1970. – III: Relations and rivalry: Interactions between Britain and the Netherlands in eighteenth century science and technology History of Science 9. Chalfont St Giles, Bucks: Science History Publications Ltd., 1970. – IV: Balance and Gasometer in Lavoisier's chemical revolution. Lavoisier and the Chemical Revolution: Proceedings of the Colloquium held on the occasion of the bicentenary of the publication of the 'Elementary Treatise of Chemistry' 1789, ed. M. Goupil with the collaboration of P. Bret and F. Masson Palaiseau: SABIX-Ecole Polytechnique. 1992.

[Sec. 2] DR THOMAS BEDDOES: PNEUMATIC CHEMISTRY MEDICINE, AND POLITICS: – V: Dr. Thomas Beddoes at Oxford: Radical politics in 1788-1793 and the fate of the Regius Chair in Chemistry Ambix 28. Cambridge: Black Bear Press Ltd, 1981. – VI: Dr. Thomas Beddoes (1750-1808): Science and medicine in politics and society British Journal for the History of Science 17 Cambridge: Cambridge University Press. 1984. – VII: Dr. Thomas Beddoes and the establishment of his Pneumatic Institution: A tale of three presidents. Notes and Records of the Royal Society of London 32 London: The Royal Society, 1977. – VIII: Dr. Thomas Beddoes: The interaction of pneumatic and preventive medicine with chemistry Interdisciplinary Science Reviews 7. London: Heyden & Son Ltd., 1982. [Sec. 3] THE NINETEENTH CENTURY: AN INTRODUCTION: – IX: The rich economy of nature: Chemistry in the nineteenth century. Nature and the Victorian Imagination, ed. U.C. Knoepflmacher and G.B. Tennyson. Berkeley, Calif.: University of California Press, 1977. – X: Elements in the structure of Victorian science, or Cannon revisited The Light of Nature: Essays in the History and Philosophy of Science Presented to A.C. Crombie, ed. J.D. North and J.J. Roche. Dordrecht: Martinus Nijhoff Publishers, 1985.

[Sec. 4] CHEMICAL PHILOSOPHY: DAVY, COLERIDGE, HEGEL, AND FARADAY: – XI: Humphry Davy and the idea of glory Transactions of the Royal Society of Canada, 4th Series, 18. Ottawa, Ont.: Royal Society of Canada, 1980. - XII: S.T. Coleridge: A poet's view of science Annals of Science 35. Basingstoke: Taylor & Francis Lid., 1978. - XIII: Coleridge, chemistry, and the philosophy of nature Studies in Romanticism 16. Boston, Mass: Boston University Scholarly Publications, 1977. – XIV: Hegel and the earth sciences. Hegels Philosophie der Natur: Beziehungen zwischen empirischer und speculativer Naturerkenntnis, ed. R-P Horstmann and M.J. Petry. Stuttgart: Klett-Cotta Verlag. 1986. - XV: Faraday, electrochemistry, and natural philosophy Proceedings of the Symposium on Selected Topics in the History of Electrochemistry 78-6. ed. G. Dubpernell and J.H. Westbrook, Princeton, N.J.: The Electrochemical Society, Inc., 1978. -XVI: Faraday, matter, and natural theology: Reflections on an unpublished manuscript British Journal for the History of Science 4. Cambridge: Cambridge University Press, 1968.

[Sec. 5] DEBATES ABOUT THEORY: – XVII: Affinity or structure: An early problem in Organic Chemistry. Ambix 17. Cambridge: Black Bear Press Ltd., 1970. – XVIII: Gay-Lussac and the problem of chemical qualities Proceedings of the Gay-Lussac International Colloquium. Palaiseau : SABIX-Ecole Polytechnique, 1980. – XIX: Arrangement and structure: A distinction and a difference. Van't Hoff-Le Bel Centennial. American Chemical Society Symposium Series 12, ed. O.B. Ramsay. Washington, D.C.: American Chemical Society, 1975. – Index.



[152] Macquer



152. MACQUER, Pierre Joseph (1718-1784). Elémens de Chymie théorique Par. M. Macquer, docteur-régent de la faculté de Médecine de Paris et de l'Académie royale des sciences. Paris : Jean-Thomas Herissant, 1751. ¶ 12mo. [20*], 263, [17] pp. [* actual collation on the 18th page shows "xx", a misprint, followed by [2] pages unnumbered]. Half-title, title vignette, woodcut header, large initial letter, 4 engraved folding plates (3 are of chemical apparatus, 1 of chemical symbols). Original full mottled calf, gilt-stamped spine; rubbed, a few small worm trails at lower joints. Ownership inscription at rear [hard to read, except the final word, which is correct – the book was owned by a surgeon: Marquise/Maspuce J. De la Guette[?!] chirurgien] Very good. [285] \$750

Second edition. In this work Macquer details the basic principles of chemistry, giving particular attention to salts, spices, metals, oils, fermentation, putrefaction, and more. The book also describes various apparatus used in chemistry, their construction, etc.

"A reprint (probably pirated) of the well-received first edition (Paris, 1749) in which the text has been completely reset and the plates have been less elegantly engraved in reverse, omitting the name of the original engraver (Mathey). The text is printed in smaller type than the genuine first edition, and the woodcut on the title page, headpieces, and initials are different from those in the first edition . . . very rare." – Neville.

Pierre-Joseph Macquer was a renowned and influential French chemist. "He was elected to the Paris Academy of Science in 1745 and began to concentrate on the practical applications of chemistry. In 1749 he found a method of dyeing wool and silk with Prussian blue, previously known only as an insoluble artists' pigment. He became more widely known through his two textbooks É*lémens de chymie théorique* (1749) and *Élémens de chymie pratique* (1751) which were reprinted several times and translated into English and other languages." – Smeaton.

□ Coleby 128; *DSB* VII, pp. 618-624; Neville II, p. 120; Partington III, p. 80. This edition not in Duveen, Ferguson. See : W. A. Smeaton, "Pierre Joseph Macquer,

Early Attempts to Melt Platinum." Platinum Metals Rev., 1984, 28, (1), 25.



153. MAIGNE, W. (1819-1885). Dictionnaire classique des origines des

inventions et découvertes dans les arts, les sciences et les lettres présentant une exposition sommaire des grandes conquêtes du génie de l'homme. Ouvrage destiné aux gens du monde et aux élèves des écoles par W. Maigne. Paris : Larousse et Boyer, s.d. [ca.1870]. ¶ 12mo. VII, [1], 647, [1] pp. Contemporary quarter maroon morocco, stamped in blind and in gilt; rear joint neatly replaced with kozo, foxed throughout, some stains. Ex-libris in manuscript, of Henri Cuenet, 1871 ; rubber-stamp of Charles Lamy. Very good (noting foxing). [288] \$ 30

154. MITCHELL, Stotherd (1897-1980). The Cotton effect and related

phenomena. London: G. Bell & Sons, 1933. ¶ 8vo. vii, 92 pp. 34 figs., index. Maroon gilt-stamped cloth; small paper ex-libr. label on foot of spine. Ex-Carnegie. Very good. [S0293]

\$20

RECENT work on optical rotatory power has directed attention to the importance of the phenomena which were observed in certain coloured tartrates by Cotton in 1896, namely: a maximum ellipticity and a zero rotation interposed between positive and negative maxima, giving rise to a loop in the region covered by an absorption band. Dr. Stotherd Mitchell's monograph is therefore very welcome, since it contains an attractive review both of the experimental work which preceded

WEBER RARE BOOKS

Cotton's observations and of subsequent experiments with other optically active compounds containing absorption bands of suitable wave-length and intensity. [T. M. LOWRY, [*book review*:] *The Cotton Effect*, *Nature*, 132, page 552 (1933)].



Stotherd Thomas Richard Smith Mitchell began studies at the University of Glasgow in 1915, but the First World War intervened and he served three years in Egypt. He returned to the university in 1920 on an ex-servicemen's grant, graduating BSc with Special Distinction in Chemistry in 1922. As holder of the Mackay Smith Scholarship, he then became a research student under the supervision of Professor George Gerald Henderson.

Dr Mitchell began teaching in the department of Physical Chemistry to fund his studies, and was awarded a Carnegie Research Scholarship for 3 years starting in 1923. He graduated with a PhD in Chemistry in 1926 and obtained the degree of DSc in 1931 for original work undertaken during a Carnegie Teaching Fellowship in 1927-1932. He had training in music as a young man and had at least one song published. In 1933 he was appointed Lecturer in Physical Chemistry, a post he held (with promotion to Senior Lecturer in 1949) until his retirement in 1963. Early in his career, he was instrumental in the design of the University's new Chemical

Institute. He served on the Board of the Faculty of Science in the 1930s-1940s, and was active in several scientific societies, including the Chemical Society, of which he was a Fellow for more than 40 years. His colleagues commended his teaching ability and his supervision of numerous honours undergraduate and research students. – University of Glasgow Archive Services.



155. MOLES, Alberto; Jose Ruiz DE ESPARZA. Patentes Mexicanas de

la Segunda Mitad del Siglo XIX. Mexico City: Sociedad de Exalumnos de la Facultad de Ingeniería, UNAM, 1988. ¶ Series: *Fuentes para la Historia de la Ingeniería Mexicana*, 6. 8vo. 280 pp. Illustrations. Red folding printed wrappers. Burndy Library bookplate of Thomas F. Glick (donor), a professor of history at Boston University. Fine. Scarce. [S11362]

\$18

First edition, printed in an edition of 1600 copies. Mexican Patents of the Second Half of the XIX Century.



156. **MONNET, Antoine-Grimoald** (1734-1817). *Traité des eaux minérales, avec plusieurs mémoires de Chymie relatifs à cet*

objet. Paris : P. Fr. Didot le Jeune, 1768. ¶ 12mo. XXXII, 359, [9] pp. Woodcut head- and tail pieces; a few minor spots. Contemporary mottled calf with raised bands, gilt compartments, leather spine label, all edges marbled; two corners mended with kozo. Bookplate of former owner ("Fratelli Salimbeni" - Salimbeni brothers, possibly chemists) with the initials of G.P.C., showing an image of Pegasus with motto 'Nec adversa retorquent' and pencil shelf-marks. Very good+. [306]

\$165

First and only edition. "This treatise on minerals waters and their analysis gives a brief history of the subjects. The history if followed by chapters on chalybeate, alkaline and sulphurous waters. Methods of analysis are discussed and analyses of different waters are given. The last part of the book is devoted to memoirs presenting experiments on substances related to mineral waters." – Cole. The are other lengthy papers, on pyrite (fool's gold), of Epsom salts, of limestone and its origins, etc.

Antoine-Grimoald Monnet was a French mineralogist and mining specialist who became an inspector of mine and wrote several treatises on mining and geology based on his travels and observations across France and neighbouring regions. Along with Jean-Étienne Guettard he published the earliest geological maps of France. Monnet "gained fame after he began to analyze samples sent to Cigonge, publishing papers on mineral spring waters from Bains, Plombières, and Luxeuil in 1767 where he pointed out that there was hardly any dissolved minerals that could be responsible for any curative properties." [Wikip.].

Monnet worked as a laboratory assistant [boy] at both Parisian and Nantais apothecaries. During his residence in Nantes, the analysis of a mineral spring water that had just been discovered allowed him to write a memoir on the mineral waters, which he came to read at the Academy of Sciences in February 1765. Shortly thereafter another paper given on the analysis of sea water. These two works, articles presented by the authors at the Academy, earned the esteem of Guillaume-Chrétien de



Lamoignon de Malesherbes (1721-1794) who presided over the Academie during that year. Malesherbes became his sponsor. In 1766, Malesherbes rented a house in Vaugirard, which he outfitted to allow Monnet to present chemistry courses in 95 lessons (lab sessions), of which he was the most diligent listener. – Taton, Bedel & Birembaut. p. 382. During the Revolution, Monnet was appointed first inspector general of mines.

PROVENANCE [2]: Bookplates of: "Fratelli Salimbeni" – Salimbeni brothers, possibly chemists. Includes also the bookplate with initials of G.P.C., showing an image of Pegasus with motto 'Nec adversa retorquent' and pencil

shelf-marks. See: Caroli de ?Calupiris.

□ Bolton 678; Cole 953; *DSB* IX, p. 478; Duveen 409; Neville II, p. 184; Partington III, p. 101; Taton, Rene ; Ch. Bedel ; Arthur Birembaut. *Enseignement et diffusion des sciences en France au XVIIIe siècle*, (1964). p. 382.



157. [MORE, Henry (1614-1687)] HALL, A. Rupert (1920-2009). Henry More, Magic, Religion and Experiment. London: Basil Blackwell, 1990. ¶ Series: Blackwell Science Biographies. 8vo. xii, 304 pp. Index. Cloth, dustjacket. Ownership ink signatures, including that of David C. Lindberg. [S11774]
\$ 16

Henry More (1614-87) was the greatest English metaphysical theologian and the most perplexing; he was also perhaps the most distinguished member of the group of divines known as the Cambridge Platonists. An admirer of Galileo, Descartes and Boyle, he rejected their detailed applications of mechanical philosophy to the explanation of natural phenomena. He was an experimenter, yet also a cabalist, and one of the few writers whom Newton acknowledged as having influenced his ideas. First published in 1990, this thorough and accessible biography is the first booklength treatment of this remarkable character. Hall illuminates More's important contributions to science, particularly his work on space and time which influenced Newton, and gives fascinating insights into his spiritual philosophy and his preoccupation with witchcraft. The depth of Professor Hall's scholarship makes the book an exceptional account of the turbulent world of the Scientific Revolution. Publisher.



158. MORENO, Roberto. Las Instituciones de la Industria Minera

Novohispana. Mexico City: Universidad Nacional Autonoma de Mexico, Instituto de Investigaciones Historicas, 1978. ¶ Offprint from: La minería en Mexico, Estudios sobre su desarrollo histórico. 8vo. 69-164 pp. Bibliography. Printed wrappers; front cover slightly creased. SIGNED AND INSCRIBED from author to Thomas F. Glick, a professor of history at Boston University, at half-title. Burndy Library donation bookplate of Glick. Very good. Scarce. [S11363]

The Institutions of the Novo-Hispanic Mining Industry.



\$12



159. [MORIAEN, Johann (c.1591-1668)] John T. YOUNG. Faith, Medical Alchemy and Natural Philosophy: Johann Moriaen, Reformed Intelligencer, and the Hartlib Circle. Aldershot, UK: Ashgate, 1998. ¶ 8vo. xv, 278 pp. Bibliography, index. Black paper-backed boards, giltstamped spine, dust-jacket; top front jacket slightly rubbed. Bookplate. Very good. ISBN: 1840142820 \$ 45

This is a fundamental re-assessment of the world-view of the alchemists, natural philosophers and intelligencers of the mid-17th century. Based almost entirely upon the extensive and hitherto little-researched manuscript archive of Samuel Hartlib, it charts and contextualises the personal and intellectual history of Johann Moriaen (c.1592-1668), a Dutch-German alchemist and natural philosopher. Moriaen was closely acquainted with many of the leading thinkers and experimenters of his time, including René Descartes, J.A. Comenius, J.R. Glauber and J.S. KÃ¹/₄ffler. His detailed reports of relations with these figures and his response to their work provide a uniquely informed insight into the world of alchemy and natural philosophy. This study also illuminates the nature and mechanisms of intellectual

and technological exchanges between Germany, The Netherlands and England. – publisher.

The German minister, physician, natural philosopher and would-be alchemical adept Johann Moriaen was born in Nürnberg in 1591. By 1633 he was involved in practical aspects of optics and Paracelsian chemistry and medicine. In 1657 he is recorded as the owner of a scarlet dye works in Hulkestein near Arnhem.

CONTENTS: Part 1: Johann Moriaen: A Biographical Sketch 1. Servant of the Church 2.Servant of God 3. An Intelligencer's Ethos Part 2: Universal Wisdom 4. Panaceas of the Soul: Comenius and the Dream of Universal Knowledge 5. Curing Creation: Alchemy and Spirituality 6. Universal Medicines: Johann Rudolph Glauber and his Reception in England 7. The Dawn of Wisdom.



160. [MURDOCH, John (1927-2010)] SYLLA, Edith; Michael McVAUGH (eds.). Texts and contexts in ancient and medieval science. Studies on the occasion of John E. Murdoch's Seventieth birthday. Leiden, New York & Koln: Brill, 1997. Series: Brill's Studies in Intellectual History, vol. 78. 8vo. xxxii, 330 pp. Maroon gilt-stamped cloth. Ownership signature on ffep. Fine. [S10887]

John Murdoch was a historian of ancient Greek and medieval Latin science and philosophy, Harvard University. In alternate years he gave a lecture course on one or the other of these periods in pre-modern science. Each year he directed a seminar on both of these ancient and medieval fields, the topics of which vary, in addition to an advanced seminar on medieval philosophy and science, and a seminar on the establishment of medieval Latin scientific texts.

Professor Murdoch was the author of *Album of Science: Antiquity and the Middle Ages* (Charles Scribner's Sons, 1984). His publications in medieval science, mathematics, and philosophy include an article in The Cultural Context of Medieval Learning (D. Reidel, 1973), edited with Edith Sylla, and numerous articles on the transmission of Euclid's Elements. His particular interest was in the concepts of infinity, continuity, and limits throughout early science. [Harvard Dept. of the History of Science].

CONTENTS [12 papers]: Editor's Introduction: EDITH D. SYLLA and MICHAEL R. MCVAUGH. Publications of John E. Murdoch. []. Eudoxan Astronomy and Aristotelian Holism in the Physics, by JEAN DE GROOT. [II]. The Latin Sources of Quadrons vetus, and What They Imply for Its Authorship and Date, by WLBUR R. KNORR. [III]. Roger Bacon's De laudibus mathematicae: A Preliminary Study, by GEORGE MOLLAND. [IV]. What Really Happened on 7 March 1277? Bishop Tempier's Condemnation and Its Institutional Context, by J.M.M.H. THUSSEN. [V]. Armengaud Blaise as a Translator of Galen, by MICHAEL R. MCVAUGH. [VI]. The Meanings of Natural Diversity: Marco Polo on the "Division of the World KATHARINE PARK. [VII]. Thomas Bradwardine's De continuo and the Structure of Fourteenth-Century Learning, by EDITH D. SYLLA. [VIII]. Nicole Oresme, Aristotle's On the Heavens, and the Court of Charles V. EDWARD GRANT. [IX]. Charles V. Nicole Oresme, and Christine de Pizan: Unities and Uses of Knowledge in Fourteenth Century Prance, by JOAN CADDEN. [X]. Academic Consulting in Fifteenth-Century Vienna: The Case of Astrology, by MICHAELH. SHANK. [XI]. Domingo de Soto's "Laws" of Motion: Text and Context, by WILLIAM A WALLACE. [XII]. Art, Nature, and Experiment among Some Aristotelian Alchemists, by WILLIAM R. NEWMAN; Indexes.



161. NACHMANSOHN, David (18989-1983). German-Jewish Pioneers in Science 1900-1933: Highlights in Atomic Physics, Chemistry, and Biochemistry. Berlin, et al.: Springer-Verlag, 1979. ¶ 8vo. xx, 388 pp. Frontis., photos. Blue cloth, silver stamped cover and spine titles. Previous owner's inked signature and date. Very good. [S9073]

David Nachmansohn, born in the Ukraine, was a German-Jewish biochemist responsible for elucidating the role of phosphocreatine in energy production in the muscles, and the role of the neurotransmitter acetylcholine in nerve stimulation. He is also recognized for his basic research into the biochemistry and mechanism underlying bioelectric phenomena. He joined the Department of Neurology of the Columbia University College of Physicians and Surgeons in 1942. He transferred to the Department of Biochemistry in 1955, the same year he was named a full professor. Nachmansohn retired from Columbia in 1967 and was named a professor emeritus the same year.



162. NEWMAN, William R. (1955-); Lawrence M. PRINCIPE (1962-). Alchemy Tried in the Fire; Starkey, Boyle, and the Fate of Helmontian Chymistry. Chicago: University of Chicago Press, 2002. ¶ 8vo. xiv, 344 pp. Illus., index. Gilt-stamped black cloth, dust jacket. Burndy bookplate. Fine. [BL2753]

\$40

In 2002 and 2004, Newman and Lawrence M. Principe expanded the study of George Starkey's relationship to Boyle with *Alchemy Tried in the Fire*.

What actually took place in the private laboratory of a mid-seventeenth-century alchemist? How did he direct his quest after the secrets of Nature? What instruments and theoretical principles did he employ? Using, as their guide, the previously misunderstood interactions between Robert Boyle, widely known as "the father of chemistry," and George Starkey, an alchemist and the most prominent American scientific writer before Benjamin Franklin as their guide, the book reveals the hitherto hidden laboratory operations of a famous alchemist and argue that many of the principles and practices characteristic of modern chemistry derive from alchemy. By analyzing Starkey's extraordinary laboratory notebooks, the book shows how this American "chymist" translated the wildly figurative writings of traditional alchemy into quantitative, carefully reasoned laboratory practice—and then encoded his own work in allegorical, secretive treatises under the name of Eirenaeus Philalethes. The intriguing "mystic" Joan Baptista Van Helmont—a favorite of Starkey, Boyle, and even of Lavoisier—emerges from this study as a surprisingly central figure in seventeenth-century "chymistry." A common emphasis on quantification, material production, and analysis/synthesis, the book argues, illustrates a continuity of goals and practices from late medieval alchemy down to and beyond the Chemical Revolution. – Publisher.



163. NOYES, Arthur A. (1866-1936). An Introduction to the Chemistry

of Solutions. Pasadena: Arthur Noyes, 1932. ¶ Second edition. 8vo. 39 pp. Table. Printed wrappers. Ownership signature of Norman Horowitz. Very good. SCARCE. [S8092]

\$20

A series of sections on Principles, Problems, and Procedures, for the first part of a freshman course.

Arthur Amos Noyes won the Willard Gibbs Medal (1915), & the Davy Medal (1927). He served as the acting president of MIT between 1907 and 1909 and as professor of chemistry at the California Institute of Technology from 1919 to 1936 (thus the Pasadena imprint). Noyes was Linus Pauling's mentor.

PROVENANCE: This was the personal copy of Norman Horowitz (1915-2005), who was a geneticist at Caltech who achieved national fame as the scientist who devised experiments to determine whether life might exist on Mars.



Pioneering work on the Neurochemistry of the Brain

164. PAGE, Irvine H. (Heinly) (1901-1991). Chemistry of the Brain. Springfield (IL) & Baltimore: Charles C. Thomas, 1937. ¶ 8vo. xvii, 444 pp. Numerous figs., index. Brown cloth, gilt-stamped red spine label, dust jacket; jacket lightly chipped. Very good. [M11731]

\$45

"Page was also keenly concerned about mental illness and brain chemistry. Today, we are all convinced of the importance of neurotransmitters, brain peptides, and neurochemistry in unraveling the mysteries of psychiatric diseases and the integration of neural function with other systemic bodily functions. When Page accepted an invitation to establish a Department of Brain Chemistry at the Kaiser Wilhelm Institute in Munich in 1928, after only a 2 year internship at Presbyterian Hospital in New York, there were few who recognized that potential. There were far too few at the time who were aware of his tome on brain chemistry, as it went largely unappreciated for years. Now the numbers of scientific workers in brain chemistry and neurophysiology are far greater than those of us in the cardiovascular area. Page continued his interest in brain chemistry until his death." Edward D. Frohlich, Harriet P. Dustan, F. Merlin Bumpus, *In Memoriam: Irvine H. Page: 1901-1991, The Celebration of a Leader. Hypertension*, Vol. 18, No. 4, October 1991.

Page "is perhaps best known for the co-discovery of serotonin in 1948, although his pre-eminence is a matter of record in four other areas: the renin–angiotensin system, the mosaic theory of hypertension, treatment of hypertension and public and professional advocacy of the recognition of this condition and its effects in daily life. In earlier work he published on the neurochemistry of the brain." [1937].



[165]

165. PAUPAILLE, J. J. Résumé complet de la Chimie inorganique ; contenant l'exposé des principes généraux de la Science et l'Étude des corps inorganisés . . . précédée d'une introduction historique. Orné de planches. Paris : Bureau de l'Encyclopédie Portative, 1825. ¶ Small 12mo. [4], VIII, 276 pp. Half-title (section missing), engraved frontispiece, 2 folding engraved plates. Contemporary full tree calf, spine richly tooled in gilt, red leather title label (label a bit chipped); fore-edge 'pinched' or 'thumbed' a bit roughly. Very good. Rare. [338]

The inorganic volume.



[165] PAUPAILLE

\$45



166. PAUPAILLE, J. J. Résumé complet de la Chimie organique ; contenant la Chimie végétale et animale, un précis d'Analyse Chimique et un aperçu sur les principaux poisons : termine par la Biographie des plus illustres Chimistes et par une Bibliographie et un Vocabulaire chimiques. Orné de planches. Paris : Bureau de l'Encyclopédie Portative, 1825. ¶ Small 12mo. [4], VIII, 314 pp. Half-title. Contemporary quarter calf, spine richly tooled in gilt, black leather title label. Very good. Rare. [339]

The organic volume.

\$75



[167] Payen

TRAITÉ ÉLÉMENTAIRE DES RÉACTIFS, LEURS PRÉPARATIONS, LEURS EMPLOIS SPÉCIAUX ET LEUR APPLICATION & L'ARALYSE; A. PAYEN, CHIMISTE-MANUFACTURIER, lomiti des Arts chimiques de la Soutté d'Encouragement ; de de Chimis médicale de Paris, et le plusieurs serve Sociét e de Déciennelles Technologiens, etc., pre-A. CHEVALLIER, PHARMAGIEN-GRIMINTE, des Höpitaux sivils de Paris ; Menshes adjoint de l'Académie repuie Iceabre des Saciètés médicules d'Emulation , de Placeacie, de Chi-DEUXIÈME ÉDITION PARIS. CHEZ THOMINE, LIBEAIRE, ET CHEZ LES AUTEURS,

Signed as authentic by both Authors

167. **PAYEN, Anselme** (1795-1871) ; **CHEVALLIER, Alphonse** (1793-1879). *Traité Élémentaire des Réactifs, leurs préparations, leurs emplois spéciaux et leur application à l'analyse. Deuxième édition.* Paris : Thomine, libraire et chez les auteurs, 1825. ¶ 8vo. VII, [1], [9]-579, [3] pp. Half-title, 3 engraved plates of apparatus, index, errata; date on title is inked-over. Contemporary half calf with corner tips, marbled boards, spine gilt-stamped; quite worn, gilt mostly rubbed off, corners exposed, shelf-wear. Ink stamp of T. Rucloux [J. Baudoux?], signature on title. Good. [345]

\$75

Second edition, greatly enlarged. This issue is signed by both authors representing a guarantee that this is an authentic edition, approved by the authors and publisher. The book is dedicated to the teacher of both authors, Louis Nicolas Vauquelin (1763-1829), *Membre de l'Institut Royal de France, de l'Académie de Médecine*.

"Chevallier joins Payen to prepare this enlarged second edition of a useful work on chemical reagents. Among the additions are those to Chapter 8 on apparatus (344-411 in dictionary form) and the new chapter on poisonous chemicals." – Cole. Anselme Payen, was a manufacturer and chemist. Alphonse Chevallier was a pharmacist-chemist.



[J. Baudoux?], signature of title.

□ Cole 1018; Duveen p. 462 (1822 ed.); Neville II, p. 281 (both 1822 and 1825).



[167]



[168] Pelouze

MÉMOIRE

SUR

LE TANNIN ET LES ACIDES GALLIQUE, PYRO-GALLIQUE, ELLAGIQUE ET MÉTA-GALLIQUE;

PRÉSENTÉ A L'ACADÉMIE DES SCIENCES LE 24 FÉVRIER 1834.

168. PELOUZE, Theophile-Jules (1807-1867). "Mémoire sur le tannin et les acides gallique, pyro-gallique, ellagique et meta-gallique; présenté à l'Académie des Sciences le 24 février 1834." Offprint from : Mémoires présentés par divers savans a l'Académie Royal des Sciences de l'Institut de France, et imprimes par son ordre, Sciences Mathématiques et Physiques, Tome Sixième. Paris : Bachelier, 1835. ¶ 4to. [x], (243)-270 pp. Occasional marginal foxing. Dis-bound, unopened. With large red ex libris rubber stamp (Chinese-language) on half-title and another type, black-stamped, on the general title. AS IS. [S6377]

\$ 30

"Memoir on tannin and gallic, pyrogallic, ellagic and metagallic acids". During his career, Jules Pelouze held the position of assayer at the Paris mint, professor of chemistry at the Ecole Polytechnique, and at the College de France, and president of the Commission of the Mint. Beginning in 1830, Pelouze quickly established himself as an outstanding analytical and experimental chemist, including early investigations such as this on pyrogallic acid.

"One can find its uses [of pyrogallic acid] in hair dyeing, dyeing of suturing materials and for oxygen absorption in gas analysis. Pyrogallic Acid also has antiseptic properties. Pyrogallic Acid was also used as a developing agent in blackand-white developers, but its use is largely historical except for special purpose applications."

DSB, X, p. 499; Partington, A history of chemistry, IV, p. 251, 395.



[169] Richard Mead's Pharmacopoeia 1785



169. [Pharmacopoeia] Royal College of Physicians, London; MEAD, Richard (1673-1754). Pharmacopoeia Collegii Regalis Medicorum Londinensis. Una cum Meadiana. [BOUND WITH]: Pharmacopoeia Meadiana celeberrimi auctoris monitis et praeceptis medicis

adaptata. Francofurtii et Lipsiae: in officina Fleischeriana, 1785. ¶ Two volumes in one. Small 8vo. [10], 134; [8], 37, [3] pp. 2 title-pages, both with woodcut vignettes, indexes. Original full speckled calf, raised bands, gilt-bands, later leather spine label; adhesive (sticker?) removed from upper spine, leaving a scar. Very good. [357]

\$100

Latin edition. "The first Pharmacopoeia was published by the College of Physicians in the year 1618. This was the first step towards reducing the processes of Pharmacy to a regular standard for the guidance of dispensers of medicine." – Bell & Redwood, p. 7. The first Richard Mead edition was from 1756.
Mead and the College were trying to catalogue recognized medicinal herb cures for diseases. The work is gathered from original prescriptions, containing the methods of cure in diseases, using various ointments & liniments, oils, spirits, tinctures, syrups, powders, etc. Opium poppies are listed. So also, are Jamaican peppers, French plums, peonies, Dragon's blood, red sandalwood, mustard seed, etc.

Dr Richard Mead (1673-1754) was one of the leading physicians of his day, and an important supporter of the Foundling Hospital in its early years. An expert on poisons, scurvy, smallpox and public health, Mead's patients included Queen Anne, George II, Sir Isaac Newton and the French painter Antoine Watteau. He was quite a character, with stories of drinking snake venom during his investigations into the effects of various poisons, and fighting a duel to defend his theory on smallpox treatment. – Foundling Museum.

□ This edition not in Wellcome. See: Jacob Bell; Theophilus Redwood, *Historical sketch of the progress of pharmacy in Great Britain*, (1880), pp. 41-43.





First French edition

170. **PRIESTLEY, Joseph** (1733-1804). *Expériences et Observations sur* différentes espèces d'air. Traduites de l'anglois de M. J. Priestley, Docteur en Droit, Membre de la Société Royale de Londres. Berlin, Paris : Saillant et Nyon,

1775. ¶ 12mo. xxxvi, 434, [2] pp. 2 large folding engraved plates, Additions et Corrections. Original full mottled calf, blind-rules surround, gilt-stamped spine, dark leather spine label, marbled endleaves; rubbed. Very good. Rare. [374]

\$ 2,500

First edition in French, the translation prepared by Jacques Gibelin (1744-1828). This is a translation of the author's *Experiments and Observations* (1774), printed in this edition with approval of the author.

[170]



"When Priestley published the first volume of his epoch-making *Experiments and Observations on Different Kinds of Air* (London, 1774), he had not anticipated that he would publish two further volumes with that title. Jacques Gibelin immediately translated it into French and showed Priestley the translation when they met in Paris in October 1774. Priestley approved the French version, and at the end (pp. 432-434) Gibelin prints a letter addressed to him by Priestley on 19 January 1775, in which he reports some of the new experiments. Gibelin published the translation with the "A. Berlin" (i.e., Paris) imprint in order to avoid the inevitable delay that resulted when permission to publish went through the usual French channels. The sheets were of the first issue were reissued (Paris, 1777), followed by two more volumes, with the approbation and privilege in volume III. The 1775 first issue is extremely rare." – Neville.

🗆 Cole 1066; Ferchl 424; Neville II, p. 336; Wellcome IV, 436.



Interspersed with Dried Plant Specimens pressed between some leaves

171. RICHTER, Victor von (1841-1891). Kurzes Lehrbuch der

Organischen Chemie oder der Chemie der Kohlenstoffverbindungen. Bonn: Max Cohen & Sohn, 1876. ¶ Small 8vo. XV, [1], 701, [3] pp. 8 figures. Contemporary maroon gilt-stamped calf; extremities shelf-worn, 2 corners showing. Very good. [397]

\$65

First edition. This copy with a number of inserted, dried & flattened, plant specimens preserved within the book.





3. Thermodynamik des Turmalins und mecha-nische Theorie der Musieleontraction; von Eduard Riecks.

Non You Kuraf Ricks. Wan ich in den dritten Thelle der folgenden Mätheilung principies der Mochanik und Thermodynamik auf ein die gemeinsen Unterschnen ein paar Worte zur Erklu-ne die Gemeinsen int Voigt ausgeführte Bestimmung für dirch die gemeinsen mit Voigt ausgeführte Bestimmung für dirch meine Ablaullang über die Moleculartheorie dar bietrichtes Brecheningen 5) eines gewissen Abschluss ge-bietrichtes Brecheningen 5) eines gewissen Abschluss ei-beitrichte Brecheningen 5) eines gewissen Abschluss ei-beitrichtes Brecheningen 5 bietricht, welcher die Annahm-sie Miskeleubistanz in Grunde lag. In dieser Bes-hinten die Miskelsubistanz in Grunde lag. In dieser Bes-hinten die Kuskelsubistanz in Grunde lag. In dieser Bes-hinten diesen, welche für die Berthilten gier ergeinnet Belle histachen des geretzte Hussels besicht, schlich ich neiser bistachen des geretzte Muskelsubisticht, schlich ich neiser bistachen des geretzte Muskelsubisticht, schlich ich neiser bistachen des geretzte Muskelsubisticht, schlich ich neiser bistachen des geretzte Muskelsubisticht micht ohne Werth bistachen des geretzte Muskelsubisticht

Riecke u. Voigt, Die pizzoelectrischen Constanten des Quartes and Tarmains. Wied. Ann. 89. p. 523. 1892.
 Riecke, Molentahrenie der piszoelsstrischen und zyroelectri-schen Erscheinungen. Götänger Abhandlungen. 28. 1892.
 G. K. Muller, Thoure der Musklostmetine. 1. Löpping 1891.

RIECKE, Eduard (1845-1915). "Thermodynamik des Turmalins 172. und mechanische Theorie der Muskelcontraction." In: Annalen der

Physik und Chemie, Neue Folge, Band 49, No. 7, 1893. Leipzig: Johann Ambrosius Barth, 1893. ¶ 8vo. Pages (430)-458. [Entire volume: viii, 760 pp.] Tables. Quarter black cloth, cloth corners, paste-paper over boards, gilt spine; rubbed. Ex library ms. paper spine label, rubber stamps. Very good. [S6828]

\$75

Reicke "made important contributions to the molecular theory of pyroelectric and piezoelectric phenomena in tourmaline and quartz (1891, 1914). But his most important and influential researches were undoubtedly on the theory of conduction in metals and a granular theory of the properties of metals." - Encyclopaedia.

"About 1885 Riecke conducted theoretical and experimental researches in hydrodynamics and later, about 1890, undertook theoretical studies in thermodynamics, concentrating on the concept of thermodynamic potentials, which he applied to problems in physical chemistry. Noteworthy among these studies was one, in 1893, in which he analyzed muscle contraction in living organisms by using thermodynamic potentials." – DSB, XI, p. 446.

Riecke "conducted experiments on electrical conduction in metals for which he further developed a model of management by electrons began by Paul Drude. With the model, among other things, the decrease in conductivity could be explained with increase in temperature. Later he worked among others with electricity conduction in gases."

Referencing a paper studying electricity and its applications of conductivity as related to the structure of atoms, in by Riecke and Meyer (1888), W.V. Farrar states, "It is now often remembered that the subsequent rapid development of "chemistry in space" forced organic chemists into some acute speculations about the possible complexity of elementary atoms." – See: W.V. Farrar, "Chemistry in Space" and the complex atom. *The British Journal for the History of Science*, Vol. 4, No. 1 (Jun. 1968), pp. 65-67.



 173. RIEDERER, Joseph (1939-2017). Kunstwerke chemisch betrachtet, Materialien Analysen Altersbestimmung. Berlin, Heidelberg, New-York: Springer, 1981. ¶ 135 x 205 mm. IX, [1], 191, [1] pp. 35 figures, 50 tables. Original printed wrappers. Very good. [400] \$10



The Life of Saussure in Switzerland

174. [SAUSSURE, Horace Bénédict de (1740-1799)] BOUVIER, Louis (1819-1908). De Saussure, sa vie, ses voyages et ses observations dans les Alpes. Genève : Grosset et Trembley, 1877. ¶ Head of cover title : Souvenir du congrès médical de Genève (12-17 Septembre 1877). Small 8vo. 132, [4] pp. Original printed gray boards, modern white cloth spine. Some browning of paper, else fine. Ex-libris-heraldic sticker applied to title margin. Rare. [416]

\$ 50

"The Alps were the focus of Saussure's investigations. He saw them as the grand key to the true theory of the earth, and they gave him the opportunity to study geology in a manner never previously attempted. Saussure closely examined the inclination of the strata, the nature of the rocks, the fossils and the minerals." – Wikip. Louis Bouvier was a physician and botanist, living in Lancy, Switzerland. He wrote another book on the flora of the Alps. He moved to Argentina in 1890 and died there in 1908.

See : René Sigrist (ed.), H.-B. de Saussure (1740–1799) : un regard sur la terre. Geneva, Georg, 2001.



175. SCHEELE, Charles-Guillaume [Carl Wilhelm] (1742-1786). Traité

chimique de l'air et du feu, par Charles-Guillaume Scheele . . . avec une introduction de Torbern Bergmann . . ., ouvrage traduit de l'allemand, par le baron de Dietrich . . . Paris : Hôtel Serpente 1781. ¶ 12mo. xliv, [45]-268 pp. Vignettes, woodcut head and tail-pieces, 1 engraved folding plate, errata; plate with some waterstains. Original full mottled calf; beautifully rebacked with French-gilt-stamped spine with black title label. Very good.



With:

Supplément au Traité chimique de l'air et du feu de M. Scheele contenant un tableau abrégé des nouvelles découvertes . . . Traduit et augmenté par M. le Baron de Dietrich . . . Paris : Rue et Hôtel Serpente, 1785. ¶ 12mo. xiv, [2], [13]-214 pp. Woodcut head and tail pieces, index. Original mottled calf with single blind rule, spine heavily tooled in gilt, maroon spine label; joints cracked. Bookplate of Stanislai Sanseverino. Rare. [418]

Together: 2 volumes: \$ 1,475

First edition in French, translated by the Baron Philippe-Frederic von Dietrich [Baron de Dietrich] (1748-1793), with his notes found at the conclusion of this work. Tobern Bergman, professor of chemistry and pharmacy, provided the introduction. Scheele would have been the first to announce his discovery of oxygen and how it would change the existing phlogiston theory of air and 'combustion' [rust]. "This work was given to the publisher in 1775 but not published until 1777, at which time both Joseph Priestley and Antoine Lavoisier had already published their experimental data and conclusions concerning oxygen and the phlogiston theory. Carl was credited for finding oxygen with two other people, Joseph Priestley and Antoine Lavoisier." "Before Scheele made his discovery of oxygen, he studied air. Air was thought to be an element that made up the environment in which chemical reactions took place but did not interfere with the reactions. Scheele's investigation of air enabled him to conclude that air was a mixture of "fire air" and "foul air;" in other words, a mixture of two gases. Scheele performed numerous experiments in which he heated substances such as saltpetre (potassium nitrate), manganese dioxide, heavy metal nitrates, silver carbonate and mercuric oxide. In all of these experiments, he isolated the same gas: his "fire air," which he believed combined with phlogiston in materials to be released during heat-releasing reactions." – Wikip.



A work in which Scheele demonstrates the discovery of oxygen in air, a discovery made independently of that of Joseph Priestley. The author observes that there are two gases in air, one of which is sensitive to combustion. With the help of several

experiments, Scheele also analyzes the implications of air composition for respiration, blood and plant growth.

"Scheele's most renowned work. The German original first appeared in 1777." – Sotheby, Robert B. Honeyman Collection, vol. II, 2776(a) cites the first English edition, 1780:

"The announcement of Scheele's discovery of oxygen as a gas necessary for combustion was made independently of Priestley, and two years earlier. Scheele also demonstrates the photosensitive nature of chloride of silver, a discovery that led to photography" – Poggendorff II, pp. 776-77.

"The Supplement contains important additions incorporated into the second German edition of Scheele's *Chemische Abhandlung von der Luft und dem Feuer* (Leipzig, 1782), namely Leonhardi's survey of the new discoveries on gases (including many notes by the translator, Baron P.F. von Dietrich), remarks by Richard Kirwan, and a letter by Joseph Priestley. At the end (pp. 179-189) is a description of Scheele's experiments on the amount of "air pur" (oxygen) that is found in the atmosphere.





PROVENANCE (Supple.): Stanislao

Sanseverino (1764-1826) was a Neapolitan cardinal.

□ Caillet 9953; Cole 1165-1166; Duveen p. 533; Edelstein i2054; Ferguson II, 331; Neville II, p. 431; Partington III, p. 211: "very rare"; Smith 433; Waller 11236.



176. SMITH, John David Main. *Chemistry & atomic structure. With an introduction by professor G. T. Morgan.* London: Ernest Benn, 1924. ¶ Dedicated to Alfred Werner. 8vo. 221 pp. 20 diagrams, index. Original dark red blind-and gilt-stamped cloth. Ex-Carnegie with their embossed stamps (p.150). Very good copy. [S0377]

\$20

First edition. Eric Scerri writes that Main Smith, a British chemist, was virtually unknown but made significant research on atomic physics in the 1920s. "Main Smith senior's claim to fame rests mainly with a handful of articles that he published in the years 1924-25 in an unexpected place, the journal *Chemistry & Industry*. As a result, the papers did not have any serious influence on chemists and certainly not on physicists, with a few minor exceptions.

What Main Smith did was to take on the views of the mighty physicist, Niels Bohr, by proposing some improved electronic arrangements for the atoms of many elements. These new arrangements were independently, rediscovered by an almost equally obscure English theoretical physicist, Edmund Stoner, who at the time was a graduate student at the University of Cambridge.

Main Smith's contribution may be put very simply by saying that he challenged Bohr's view of a symmetrical distribution of electrons in each shell surrounding the nucleus of an atom. For example, in the case of the second shell, which had long been known to contain eight electrons, Bohr regarded the electronic structure to consist of two sub-shells each containing four electrons. Main Smith had the temerity to challenge this view and to claim that the second shell should be regarded as having a grouping of 2,2 and 4 electrons instead on the basis of detailed chemical evidence. Similarly Main Smith held that every shell begins with a subshell containing just two electrons. In contemporary terms he could be said to have discovered the existence of s-orbitals, and the fact that each shell begins with such an s-orbital." See: Eric Scerri [UCLA], *Who was John David Main Smith*? [Blog]. March 12, 2016.

This work is dedicated to Alfred Werner, the Swiss Nobel Prize winner for chemistry, who proposed the octahedral configuration of transition metal complexes (1913).

177. STRUTT, John, third Baron Rayleigh (1842-1919); William RAMSAY (1852-1916). Argon, a New Constituent of the Atmosphere. City of Washington: Smithsonian Institution, 1896. ¶ Smithsonian Contributions to Knowledge. 1033. 4to. (321 x 240 mm) [4], 43, [1] pp. 5 figs. Original gilt- and blind-stamped green cloth. Bookplate of Andras Gedeon. Fine. [S9543]
\$ 140

FIRST SEPARATE AMERICAN EDITION OF THE DISCOVERY OF ARGON. Argon was the first of the inert gases to be discovered and both Rayleigh and Ramsay claimed to be the first to identify it, eventually agreeing to submit a joint paper. It was largely a result of this work that won Rayleigh the Nobel Prize for Physics and Ramsay the prize for chemistry in 1904. Ramsay later went on to identify and isolate helium, krypton, neon and xenon.

"Rayleigh and Ramsey [sic] had noted that nitrogen obtained from the air had a density greater than that of nitrogen liberated from its compounds by about one-half percent. This led to the isolation of the first of the inert gases which they called argon. In the following year Ramsay found another, helium, in the mineral clevite, altho this had been noted in the sun's spectrum by Lockyar [sic] in 1868. In four years, 1894-8, five new gases, including neon, krypton and xenon had been discovered. These form a distinct group in the periodic table; all have zero valency." [Dibner].



A revised version of this work had been published in the Philosophical Transactions a year earlier ("a curious instance of a revision appearing before the original work"). [Norman].



PROVENANCE: Andras Gedeon obtained his M.Sc. in Engineering and Applied Science from Yale University in New Haven, Conn. and his D.Sc. in physics from the Royal Institute of Technology in Stockholm. Having spent twenty-five years

directing R&D projects in the medical equipment industry, both in major corporations and more recently in companies that he has cofounded, Dr Gedeon has been instrumental in the development of new equipment and methods in anaesthesiology, intensive care and cardio-pulmonary diagnostics. A member of the Royal Swedish Academy of Engineering Sciences, he has been a keen book collector with a focus on his long-standing interest in the history of science, technology and medicine. He is the author of *Science and Technology in Medicine: An illustrated account based on ninety-nine landmark publications from five centuries.* 2005.

Dibner, Heralds of science 50; DSB vol. XIII, pp. 100-103; Norman 2029.



178. TROOST, Louis-Joseph (1825-1911). Précis de Chimie conforme

aux nouveaux programmes. Seizième édition. Paris : Masson, 1884. ¶ 12mo. [4], 344 pp. 222 figures, index; mild foxing throughout. Contemporary quarter brown calf, marbled boards; spine head mended with kozo, corners showing, rubbed. Good+. [450]

French chemist, Louis Joseph Troost, "began his studies at the École Normale Supérieure in Paris, where from 1851 he worked as an assistant chemist. In 1856, he received his doctorate of sciences. After serving as chair of chemistry at the Lycée Bonaparte, he became a lecturer at the École Normale Supérieure (from 1868). Beginning in 1874, he was a professor of chemistry to the faculty of sciences in Paris, and in 1884, replaced Charles Adolphe Wurtz as a member of the Académie des sciences."

"By the death of Troost, on September 30, at the ripe age of eighty-five, France loses the last surviving member of that group of workers—pupils

\$ 25

of Henri Sainte-Claire Deville at the Ecole Normale —who created, mainly under his inspiration and leadership, what was practically a new department of chemical science. Thermal chemistry, as we understand it to-day, may be said to have originated in mid-Victorian times. It may be urged that the relations of chemistry to heat are so intimate that the study of these relations is necessarily as old as the study of chemistry itself. But it was only at the beginning of the latter half of the last century that the subject of thermal chemistry was attacked. Systematically, and for the most part in France, at the instigation of Deville, who, with the aid of Troost, Debray, Isambert, Hautefeuille, and Ditte, laid the foundations of that imposing superstructure to which this special department of knowledge has now attained." – *Nature*, 87, 491–492 (1911).





179. URBAIN, Georges (1872-1938). Les disciplines d'une Science (La

Chimie). Paris : Octave Doin, Gaston Doin, 1921. ¶ Series : *Encyclopédie scientifique*, publiée sous la direction du Dr. Toulouse, *Bibliothèque d'histoire et de philosophie des sciences*, Directeur : A. Rey. Small 8vo. [2], [6], 324, [2], XIV pp. Original mustard-orange cloth with red & black stamped covers ; rubbed. Very good. [454]

\$10

"In 1911 Urbain isolated another new element which he called "celtium", but his studies were interrupted by World War I. In 1922, he announced his new element, fully characterizing its emission spectrum, but mistakenly identifying it as a rare earth. George de Hevesy and Dirk Coster also characterized it, placing it more accurately, and called it "hafnium". A decades-long controversy over credit and naming was eventually decided in favor of hafnium. Although Urbain was right in detecting the presence of a new element, the spectra and the chemical behavior he described were not a good match to the element later isolated. In part, the controversy resulted from the different techniques used by chemists like Urbain, who favored chemical reduction techniques, and physicists who increasingly relied on new X-ray spectroscopy methods."



180. VIOLETTE, Henri (1809-1880). Nouvelles manipulations

chimiques simplifiées, contenant la description d'appareils entièrement nouveaux, d'une construction simple et facile, et suivie d'un cours de chimie pratique à l'aide de ces instruments. Paris : L. Mathias (Augustin), 1839. ¶ 8vo. [4], iv, 426 pp. Numerous figures of apparatus, 4 of 5 folding tables [facing p. 355 + B-D]; (lacking table A), foxed. Contemporary marbled boards; black spine label with gilt-stamping; rubbed, corners showing. As is. [464]

\$25

First edition. The first part of this work provides descriptions of the use and construction of chemical apparatus, such that students can build the apparatus themselves and save money. The second part offers the actual manipulations, being practical chemistry course material using these same instruments.

□ Cole 1319. Not in Neville.



181. WURTZ, Adolphe (1817-1884). Dictionnaire de Chimie pure et

appliquée, comprenant la chimie organique et inorganique, la chimie appliquée à l'industrie, à l'agriculture et aux arts, la chimie analytique, la chimie physique et la minéralogie. Paris : Hachette, 1869-1878. ¶ 3 volumes bound in 5. Large 8vo. Printed in double columns ; light foxing. Vol. 1-part I: [12], XCIV, [2], 687, [1] pp. 105 figures, 1 chromolithographic plate (p. 296); Vol. 1-part II. (pagination & figs. continue): [4], (687)-1659, [1] pp. 106-330 figs., errata; Vol. 2-part I: [4], 920 pp. 331-478 figs. (including 2 chromolithographs); Vol. 2-part II: [6], (921)-1696 pp. 479-651 figs.; Vol. 3: [4], 794 pp. 1 colored plate (p. 256), 652-766 figs. TOTAL OF 766 FIGURES. Contemporary quarter green calf with black- and gilt-stamping on spines, marbled boards, marbled endsheets; some inner joints mended with kozo, spines faded, rubbed. Ownership rubber-stamps of Ph. Chuit, Lausanne; bookseller's ticket A. Bonnet. Very good.

Suppléments: Première suppl.: 2 volumes. Paris : Hachette, [no date, but 1880, 1886]. ¶ Large 8vo. Supple. (first part): [4], 848 pp. 71 figures, 1 lithographic plate (p. 814) ; Supple. (second part): [4], (849)-1712 pp. 67-100 figures, 2 folding charts. TOTAL OF 100 FIGURES. Contemporary quarter green calf with black- and gilt-stamping on spines, marbled boards, marbled endsheets; some inner joints mended with kozo, spines faded, rubbed, head of supplements chipped. Very good.

[with]:

WURTZ; Charles FRIEDEL (1832-1899) (editor). *Deuxième supplément au Dictionnaire de Chimie pure et appliquée*.: Hachette, 1892-1910. ¶ 7 volumes (complete). [Supple. Vols. I-VII : 1892, 1910, 1897, 1901, 1906, 1907, 1908]. Large 8vo. Vol. I: [4], 832 ; Vol. II: [4], (833)-1585, [3] ; V. III: [4], 789, [3] ; V. IV: [4], 945, [3] ; Vol. V: [4], 648 ; Vol. VI: [4], 1024 ; Vol. VII: [4], 1058, [2] pp. INCLUDES MORE THAN 600 FIGURES. Contemporary quarter dark green quarter calf, backs stamped in blind- and gilt, marbled boards, 'psychedelic' decorative endsheets; faded spines, rubbed. Ownership rubber-stamps of Ph. Chuit, Lausanne. [475]



\$ 250 [in all, 12 volumes bound as 14 volumes].

First edition. Hachette here published an authoritative and comprehensive dictionary of chemistry, the directorship of the project was given to one of the French scientific luminaries of the time, Charles Adolphe Wurtz. Originally sold by fascicles, the five volumes of the *Dictionnaire de Chimie pure et appliquée* were published between 1869 and 1874. As the material is abundant and industrial developments are rapidly developing, it was decided to start a supplement. The first supplemental volume was published in 1880 and, although Wurtz died in 1884, the second volume, released in 1886, still bears his name. As a result, the "Wurtz", which became the reference dictionary on the subject, a second supplement in seven volumes this time was published between 1892 and 1908. It was Charles Friedel, a personal friend of Wurtz and his collaborator for previous editions, who took the lead in a largely renewed team with the presence of Auguste Béhal (1859-1941), Albin Haller (1849-1925), and Henri Moissan (1852-1907).

With the collaboration of Jules Bouis, Eugène Caventou, Jules de De Clermont, Jules Henri Debray (1827-1888), Pierre-Paul Dehérain (1830-1902), Marc Delafontaine (1838-1911), Charles Friedel (1832-1899), Armand Gautier (1837-1920), Édouard Grimaux (1835-1900), A. Henninger, Paul-Gabriel Hautefeuille (1836-1902), E. Kopp, H. Lauth, Félix Le Blanc (1813-1886)), Alfred Naquet (1834-1916), G. Salet, Paul Schutzenberger (1829-1897), Dr. Thiercelin, Louis Troost (1825-1911), Ed. Willm, etc.

Charles Adolphe Wurtz (1817-1884), « one of the great French chemists of the nineteenth century . . . was a pioneer of synthetic organic chemistry. At first an assistant to [Jean-Baptiste] Dumas, in 1849 he succeeded him at the *Ecole de Médecin* and later taught at the Sorbonne. Wurtz prepared the first organic derivative of ammonia, ethylamine, in 1849, and in 1856 he made ethylene glycol. The well-known Wurtz reaction for preparing paraffin hydrocarbons (alkanes) is named for him." – Neville.

"Wurtz excelled as a practical chemist, and almost all of his contributions were of lasting value." -DSB, XIV, p. 531.

PROVENANCE: A fair number of books from this library were from the Chuit & Naef firm. Philippe Chuit (1866-1939), Swiss chemist, was part of Chuit & Martin Naef Foundation, with Jean-Martin Naef of Geneva.

 \Box Not in Neville.

RECENT CATALOGUES: JEFF WEBER RARE BOOKS

80+ Catalogues are showing on: WEBERRAREBOOKS.COM. Here are the latest issues: [all PDF & downloadable].



Catalogue 312: Occupational Medicine & Public Health & Medical History – selections from the library of Dr. Arthur L. Frank

Catalogue 311: Medical History & Public Health

Catalogue 310: History of Science

Catalogue 309: Nature of the Chemical World

Catalogue 308: King's Choice - books on scientific instruments

Catalogue 307: Science

Catalogue 306: Medical Books . . . Arthur Frank



MEMBERSHIPS:

ABAA Antiquarian Booksellers Association of America

ILAB – International League of Antiquarian

Booksellers

VEBBUKU/SLACES – Syndicat de la Librairie Ancienne et du Commerce de L'Estampe en Suisse

ORDERING: To order a book from this catalogue, please contact the firm by email, phone, or letter. Shipping, handling & insurance are extra. All items guaranteed as described. Inquiries welcome.

On the web: WEBERRAREBOOKS.com

TELEPHONE INQUIRIES: +41 (079) 630 23 73

PAYMENTS: Payments accepted: Credit card, wire transfer, direct deposit to bank account, Zelle (Wells Fargo), PayPal, UBS Switzerland. Please inquire about bank account numbers.

PLEASE NOTE: my old email address: weberbks@pacbell.net is <u>no longer being</u> <u>used</u>. Please update my email address: <u>WeberRareBooks@gmail.com</u>

JEFF WEBER RARE BOOKS

Avenue des Alpes 104 1820 Montreux SWITZERLAND

Cell phone: +41 79 630 23 73 Weberrarebooks@gmail.com







