

PERICULUM
NOVI SYSTEMATIS MINERALOGICI
SIVE
DISPOSITIONIS CORPORUM NATURALIUM ANORGANICORUM,
SECUNDUM THEORIAM ELECTRO-CHEMICAM,
HABITA INSIMUL CHARACTERUM EXTERNORUM RATIONE.

P. III.

QUAM

VENIA AMPLISS. ORD. PHILOS. IMPERIAL. UNIVERS. ABOËNSIS

PRÆSIDE

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PRO GRADU PHILOSOPHICO

PUBLICO EXAMINI SUBJICIT

JOHANNES GABRIEL NORRING

Stipendiarius Publ. Wiburgensis.

In Auditorio Philos. die IX Julii MDCCCXXVII.

h. p. m. s.

I.

In Chemia ut et in Mineralogia difficile certe est, denominationem convenientem combinationibus eorum corporum oxidatorum, quæ ejusdem fere vel saltem non diversæ admodum sunt Electro-Chemicæ indolis, invenire; Pendetque necessario denominationis ratio ex idea, secundum quam combinationem quandam consideramus. Sic e. gr. Oxidi cum Oxidulo ferri conjunctio, quam Cel. BERZELIUS *oxidum ferroso-ferricum* appellavit, poterit quoque (si ad oppositionem Electro-Chemicam accuratius attendamus, et conjunctionem hanc Analogam cum conjunctionibus Aluminæ, Silicæ et s. p. habeamus), et quidem haud incommode, appellari *Ferras Ferrosus*.

II.

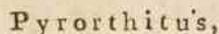
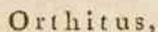
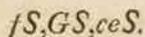
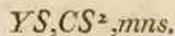
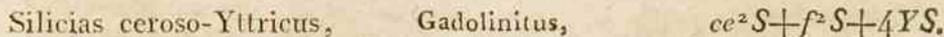
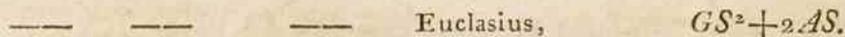
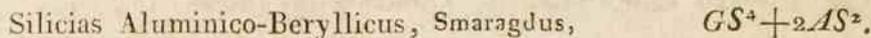
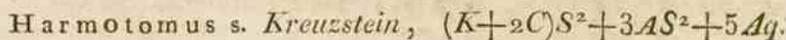
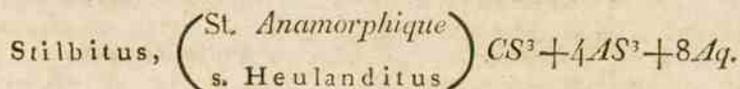
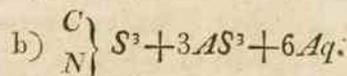
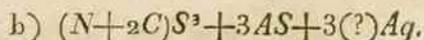
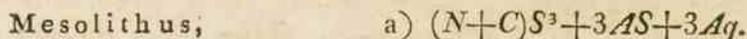
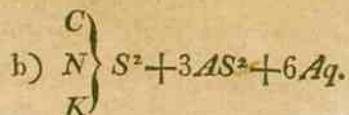
Etiam Acida, quæ aquam chemice conjunctam continent, vel acida fortiora cum acidis debilioribus conjuncta, secundum Nomenclaturam chemicam hodiernam, vix ac ne vix quidem possunt idoneis nominibus insigniri. Nam cum idea *Acidi*, jam quasi stabilita ægre conjungere volumus ideam *basis*.

III.

Valet hæc observatio quoque de conjunctione Aluminæ cum aqua eoque magis, quod intensitas Electro-Chemica in his ambobus corporibus eadem fere sit. Ambiguum igitur habemus, utrum *Aluminiatam Hydrogenicam*, an *Hydratam Aluminicam*, nuncupemus conjunctionem, quæ ex his corporibus formata, tam in regno minerali occurrit, quam arte præparari potest.

IV.

Voluerunt nonnulli conjunctiones tales acidorum duorum, quarum mentionem in Thesi II fecimus appellare *Acida dupplicia (Dubbel-Syror)*. Nos tamen hanc denominationem nullo alio pacto commodam censemus quam, quum acidum illud duplex cum basi qualibet vel basibus duabus conjungi possit, atque eo modo ut sal constituat duplex.



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9. WOLFRAMIATES: Wolframias Calcicus, Schultus s. *Tungsten* $\text{Ca}\ddot{\text{W}}^2$
 ——— Ferroso-Manganosus, $\ddot{\text{M}}\ddot{\text{W}}^2 + \ddot{\text{F}}\ddot{\text{e}}\ddot{\text{W}}^2$
 ——— Manganoso Ferrosus, *Wolfram* $\ddot{\text{M}}\ddot{\text{W}}^2 + 3\ddot{\text{F}}\ddot{\text{e}}\ddot{\text{W}}^2$
 ——— Plumbicus $\text{Pb}\ddot{\text{W}}^2$
10. MOLYBDAS: Molybdas Plumbicus *Gelb-Bleierz* $\text{Pb}\ddot{\text{M}}\ddot{\text{o}}^2$
11. CHROMATES: Chromas Ferrosus (?) *Chrom-Eisenstein*
 ——— Plumbicus *Roth-Bleierz* s. *Chrom-blei* $\text{Pb}\ddot{\text{C}}\ddot{\text{h}}$
 ——— Cuproso-Plumbicus *Vauquelinitus* $2\text{Pb}^3\ddot{\text{C}}\ddot{\text{h}} + \text{Cu}^3\ddot{\text{C}}\ddot{\text{h}}^2$
12. BORATES: *Boras Natricus* *Borax* s. *Tinkal* $\ddot{\text{N}}\ddot{\text{B}}^2 + 20\text{Aq.}$
Boras Magnesticus *Boracitus* $\ddot{\text{M}}\ddot{\text{B}}$
13. BORO-SILICIATES: Boro-bi-Silic. Calcic. *Bothryolithus*, $\text{Ca}\ddot{\text{B}} + \text{Ca}\ddot{\text{S}}^2 + \text{Aq.}$
 Bi-Boro-Silic. Calcicus *Datholithus*, $\text{Ca}\ddot{\text{B}}^2 + \text{Ca}\ddot{\text{S}}^2 + \text{Aq.}$
 Borosilicias Aluminico-Natricus *Turmalinus* s. *Schörl.*
 ——— Aluminico-Lithicus *Rubellitus*
 & cet.
- Borosilicias: *Axinitus*.
14. CARBONATES: Carbonas Natricus, *Soda, Natron*, $\ddot{\text{N}}\ddot{\text{C}}^2$
 Sesqui-Carbonas Natricus *Trona-Salz* $\ddot{\text{N}}\ddot{\text{C}}^3 + 4\text{Aq.}$
 Bi-Carbonas Natricus, {in fontibus} $\ddot{\text{N}}\ddot{\text{C}}^4$
 Bi-Carbonas Lithicus, {mineralibus} $\ddot{\text{L}}\ddot{\text{C}}^4$
 Carbonas Baryticus *Witheritus* $\ddot{\text{P}}\ddot{\text{a}}\ddot{\text{C}}^2$
 ——— Stronticus *Strontianitus* $\ddot{\text{S}}\ddot{\text{r}}\ddot{\text{C}}^2$

— Calc.-Natric., Gay-Lussitus*), $\text{Ca} \ddot{\text{C}}^2 + \text{Na} \ddot{\text{C}}^2 + 11 \text{Aq.}$

Carbonas Calcico Baryticus, Baroto-Calcitus $\text{Ca} \ddot{\text{C}}^2 + \ddot{\text{B}} \ddot{\text{C}}^2.$

Carbonas Calcicus $\text{Ca} \ddot{\text{C}}^2$

a) Arragonitus (Chaux Carbonatée dur)

b) Spathum Calcareum, Creta & cet.

Bi-Carbonas Calcicus (in aquis mineralibus) $\text{Ca} \ddot{\text{C}}^4.$

Carbonas Magnesicus, a) *Magnesia-Marmor*, } $\ddot{\text{M}} \ddot{\text{C}}^2.$

b) *Amorphus. Magnesitus*,

c) *Cum aqua Christallis.* $\ddot{\text{M}} \ddot{\text{C}}^2 + 6 \text{Aq.}$

d) *Magnesia alba* $\ddot{\text{M}} \ddot{\text{A}} \text{q} + 3 \ddot{\text{M}} \ddot{\text{C}}^2.$

Carb. Magnes.-Calcicus, *Bitterspath* & *Bitterkalk* $\text{Ca} \ddot{\text{C}}^2 + \ddot{\text{M}} \ddot{\text{C}}^2.$

— Manganosus

$\left. \begin{array}{l} \ddot{\text{M}} \\ \text{Ca} \end{array} \right\} \ddot{\text{C}}^2.$

— Ferrosus,

Eisenspath,

$\ddot{\text{F}} \ddot{\text{C}}^2$

Carbonates Calc. Magn. Mangen. *Braunkalk*

& Ferros. Commixti: & cet.

$\left. \begin{array}{l} \ddot{\text{C}} \\ \ddot{\text{M}} \\ \ddot{\text{F}} \\ \ddot{\text{Mg}} \end{array} \right\} \ddot{\text{C}}^2$

Carbonas Zincicus *Calaminæ species*

$\ddot{\text{Z}} \ddot{\text{C}}^2.$

Sub-Carbonas Zincicus

$\ddot{\text{Zn}} \text{Aq}^6 + 3 \ddot{\text{Zn}} \ddot{\text{C}}$

*) Recens a D:no BOUSSINGAULT prope urbem *Merida* in America meridionali detectum est et in honorem Celeberrimi GAY-LUSSAC appellatum hoc sal fossile.

Carbonas Cerosus	(terreus)	$\ddot{C}e \ddot{C}^2.$
— Plumbicus	<i>Bleispath</i>	$\ddot{P}b \ddot{C}^2.$
Sub-Carbonas Cupricus,	Malachitus,	$\ddot{C}u \ddot{C} + Aq.$
Carbonas Cupricus	<i>Kupfer-Lazur</i>	$\ddot{C}u A^2 + 2 \ddot{C}u \ddot{C}^2.$

15. CARBONO-SILICIAS: Cupricus *Kiesel Malachit.*

16. ARSENIATES: Arsenias Calcicus a) $\ddot{C}a \ddot{A}s + 4 Aq.$

b) Pharmacolithus $\ddot{C}a \ddot{A}s + 6 Aq.$

— Magnesticus, Picro Pharmacolithus, $\ddot{M} \ddot{A}s.$

— Ferroso-Ferrius a) Scoroditus, $\ddot{F}e \ddot{A}s + 2 \ddot{F}e \ddot{A}s + 12 Aq.$

b) Würfelerz, $Fe^3 \ddot{A}s + 2 Fe^3 \ddot{A}s^2 + 36 Aq.$

Sub-Arseniis Cobalticus

Sub Arsenias Cobalticus,

Arseniis Niccolicus, *Nickelblütthe*, $\ddot{N}^2 \ddot{A}s + 18 Aq.$

Arsenias Niccolicus, (*Ochraceus e allement*), $\ddot{N}^3 \ddot{A}s^2 + 18 Aq.$

— Cupricus a) Euchroitus $\ddot{C}u^2 \ddot{A}s + 4 Aq.]$

b) *Linsenerz*

c) *Olivenerz.*

17. PHOSPHATES: Phosphas Yttricus

$\ddot{Y}^3 \ddot{P}.$

— Ferrosus a) *Spathiges Eisenblau* $\ddot{F}e^2 \ddot{P}^3 + 12 Aq.$

b) — — $\ddot{F}e^4 \ddot{P}^3 + 16 Aq.$

c) terreus

- Ferroso-Manganosus, *Phosphor-Mangan*, $\text{Mn}^2\ddot{\text{P}} + \text{Fe}^2\ddot{\text{P}}$.
- Cuprosus, a) (e *Ehrenbreitstein*) $\text{Cu}^1\ddot{\text{P}}^2 + 5\text{Aq}$.
 b) (e *Liebischen*) $\text{Cu}^2\ddot{\text{P}} + 2\text{Aq}$.
- Aluminicus a) *Vavellit* $\text{Al}\ddot{\text{P}}^3 + 12\text{Aq}$.
 b) *Lazulith* (?)
 c) *Calait*
- Aluminico-Lithicus, *Amblygonit* $\text{L}^2\ddot{\text{P}} + \text{Al}^4\ddot{\text{P}}^3$.
- Aluminicus (cum Phosph. Ammon)? (ex insula Bourbon.)
- Calcico-Uranicus, *Uranit*, $\text{Ca}^3\ddot{\text{P}}^2 + 4\ddot{\text{U}}\ddot{\text{P}} + 48\text{Aq}$.
- Cuprico Uranicus, *Chalcolith*, $\text{Cu}^2\ddot{\text{P}}^2 + 4\ddot{\text{U}}\ddot{\text{P}} + 48\text{Aq}$.
18. SULPHATES: Sulphas Kalicus, (in fontibus mineralibus) $\text{K}\ddot{\text{S}}^2$.
- Natricus, *Thenardit*, $\text{Na}\ddot{\text{S}}^2$
- — cum aqua *Sal Glauberi*, $\text{Na}\ddot{\text{S}}^2 + 20\text{Aq}$
- Baryticus, *Spatum ponderosum* (*Schwerspath*), $\text{B}\ddot{\text{S}}^2$
- Barytico-Stronticus, $\text{Ba}\ddot{\text{S}}^2 + 5\text{Sr}\ddot{\text{S}}^2$.
- Stronticus, *Schützit* *Coelestin*, $\text{Sr}\ddot{\text{S}}^2$.
- Calcicus, *Anhydrit*, $\text{C}\ddot{\text{S}}^3$.
- Calcicus cum Aqua, *Gypsum*, $\text{C}\ddot{\text{S}}^3 + 4\text{Aq}$.
- Calcico Natricus, *Glauberit*, $\text{Na}\ddot{\text{S}}^3 + \text{C}\ddot{\text{S}}^2$
- Magnesticus, *Sal amarum*, $\text{M}\ddot{\text{S}}^2 + 12\text{Aq}$.

Sulphas Zincicus,	<i>Zink-Vitriol,</i>	$\ddot{Z}\ddot{S}^2 + 12\text{Aq.}$
— Ferrosus,	<i>Eisen-Vitriol,</i>	$\ddot{F}\ddot{e}\ddot{S}^2 + 12\text{Aq.}$
— Ferroso Ferricus,	<i>Rother-Eisen-Vitriol,</i>	$\ddot{F}\ddot{e}^2\ddot{S}^2 + 6\ddot{F}\ddot{e}\ddot{S}^2 + 72\text{Aq.}$
Subsulphas Ferricus,	<i>Vitriol-Ocker,</i>	$\ddot{F}\ddot{e}^2\ddot{S} + 6\text{Aq.}$
Sulphas Cobalticus,	<i>Kobalt-Vitriol,</i>	$\ddot{C}\ddot{o}^2\ddot{S}^2 + 24\text{Aq.}$
— Cupricus,	<i>Kupfer-Vitriol,</i>	$\ddot{C}\ddot{u}^2\ddot{S}^2 + 10\text{Aq.}$
— Plumbicus,	<i>Blei-Vitriol,</i>	$\ddot{P}\ddot{b}\ddot{S}^2.$
— Uranicus,		$\ddot{U}\ddot{S} + X\text{Aq.}$
— Uranico-Cupricus.		
Sub-Sulphas Aluminicus,		$\ddot{A}\ddot{l}\ddot{S} + 9\text{Aq.}$
Sulphas Aluminicus,	<i>Feder-Alaun,</i>	$\ddot{A}\ddot{l}\ddot{S}^3 + 18\text{Aq.}$
— Aluminico-Kalcius,	<i>Alumen Nativum,</i>	
18. HYDRO-SULPHAS:	Hydro-Sulphas Cuprico-Plumbicus,	$\ddot{C}\ddot{u}\text{Aq}^2 + \ddot{P}\ddot{b}\ddot{S}^2.$
19. SILICIO-SULPHAS:	<i>Haüynus.</i>	
20. CARBONO-SULPHATES:	Carbono-Sulphas Plumbicus,	1) $\ddot{P}\ddot{b}\text{C}^2 + \ddot{P}\ddot{b}\ddot{S}^2.$ 2) $5\ddot{P}\ddot{b}\text{C}^2 + \ddot{P}\ddot{b}\ddot{S}^2.$
21. ARSENIO-SULPHAS:	Arsenio-Sulphas Ferricus,	<i>Resinite,</i> $\ddot{F}\ddot{e}\ddot{S}^2 + 2\ddot{F}\ddot{e}\ddot{A} + X\text{Aq.}$
22. NITRATES:	Nitras Kalcius, Nitrum s. <i>Salpeter,</i>	$\ddot{K} + 2\ddot{A}\ddot{z}\ddot{A}\ddot{z}.$
	— Natricus,	$\ddot{N}\ddot{a} + 2\ddot{A}\ddot{z}\ddot{A}\ddot{z}.$
	— Calcicus,	$\ddot{C}\ddot{a} + 2\ddot{A}\ddot{z}\ddot{A}\ddot{z}.$
	— Magnesticus,	$\ddot{M} + 2\ddot{A}\ddot{z}\ddot{A}\ddot{z}.$

IV:tus O R D O:

COMBINATIONES CETERARUM CONJUNCTIONUM BINARIARUM INTER SE.

A) Combinationes corporum ejusdem generis:

1. FLUO-SALIA: Sub-Fluo-Aluminias Natricus, *Cryolithus,* $5\text{NaF}^2 + \text{AlF}^2.$

