Blood Alterations IV : Foreign Protein Analysis

carnicominstitute.org/blood-alterations-iv-protein-analysis/

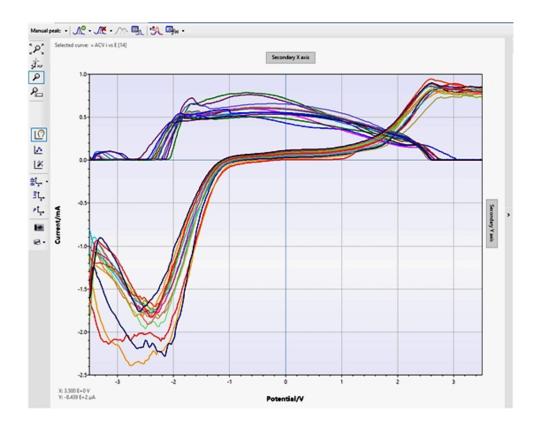
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This paper is Part Four of a Six Part series.

This paper will describe the use of various analytical laboratory techniques, with an emphasis upon electrochemistry, to assess the chemical nature of protein(s) that have been identified within the blood sample discussed in the preceding report. The methods of use have been described in the paper <u>Blood</u> <u>Alteration II : Means & Methods</u> and will not be repeated at length here. The focus of this paper will be the presentation of the end results of analysis.

AC Voltammetry is a method of primary use here; this method will seek to identify specific chemical constituents that are subject to oxidation and reduction when subjected to a combination of DC and AC current. The reactions identified are of great value in identifying ionic chemical constituents within the blood sample. It has been already established that the nature of the blood has been transformed, is dominated by the existence of the cross-domain bacteria (CDB) microbial life form, and that foreign proteins are consequently within the blood sample after exposure to low magnitude DC electrical current. Please refer to the paper <u>Blood Alteration III : Transformation</u> for this precedent.

An AC voltammogram characteristic of this recent work is shown below:



Representative AC Voltammogram – Blood Sample Analysis Carnicom Institute

As mentioned, many of the protocols established for the work underway are original in design. Some of the aspects that are important to the method include:

1. The electrode configuration employed (graphite electrodes are under use here).

2. The two sets of current profiles are due to a reversal in current polarity.

3. The blood sample is a dynamic environment when subjected to current; this accounts for the variation in each profile within the particular electrode polarization used.

4. A typical analysis session might involve the collection of 10-30 electrochemical profiles for a sample.

5. Each individual profile typically requires 3-10 minutes of time to complete. One session therefore might easily involve several hours of work of data collection.

6. The work was repeated on numerous occasions for each type of sample or blood transformation encountered; ultimately several weeks of steady work was devoted to analysis of the blood sample. The sample here is the same as that reported in the paper <u>Alteration of Blood III : Transformation</u>.

7. Considerable effort has been devoted to the analysis of control samples where the nature of the sample is known prior to analysis; examples of this would include known proteins in solution and variations in water samples including "distilled" water(not as "pure" as many might think).

8. The methods developed have demonstrated themselves to be reasonably sensitive, with parts per million (ppm) capability being expected in most cases.

9. Concentration of the sample examined is an important factor; AC Voltammetry is sufficiently sensitive that very small concentrations in solution are normally required.

10. Reference oxidation – reduction tables are available to assist in the identification of specific chemical constituents likely to be present. Such tables vary in their comprehensiveness and both simplified and detailed listings both have value in terms of assessing the likelihood of existence of a chemical species.

11. The primary method of identification involves the very careful and detailed analysis of each profile collected over time in a dynamic environment. This analysis is dependent primarily upon the peaks or inflection changes in the profile (essentially first derivative analysis). With adequate attention to detail, subtle detection of chemical constituents is a major benefit inherent in AC voltammetry; this is especially true in the domain of organic chemistry.

12. Repeatability of the results achieved is a trademark motive of the methods that have been developed in this work. The transformed blood sample is indeed a complex and dynamic environment when subjected to electrochemical energy. Substantial devotion of time and effort has been made to achieve this confidence in the work reported here.

13. The primary end goal of the work is the determination of the likelihood of existence of a chemical species within the transformed blood or known protein. Any results here should be considered as another "stepping stone" that builds upon the work that has been accomplished in previous decades.

14. Comparison of the results found here with previous work that uses dozens of additional analytical techniques is important to this corroboration process.

15. Additional analytical techniques, such as those mentioned in the <u>Blood Alteration II : Means & Method</u> paper are also critical in the protocols that have been used and developed here to analyze the transformed blood sample.

The results of the protein analysis by AC voltammetry electrochemical methods will be summarized here. Redundant trials were conducted leading to the same general results. At this point the proteins evaluated should be considered as foreign to blood, and not expected to be present within blood in any sense. Previous papers in this series provide adequate justification for this statement. The full course of studies conducted are stated in detail within CI Laboratory Notebooks Vol 26 and 27, and mentioned on several occasions on this site and in this research paper series.

It bears repeating that there are two separate layers of materials that develop from application of the electrical current : first, the foam-precipitate material at the top of the vial and then secondly, the bright red layer that settles to the bottom. Both layers exhibit a predominance of the cross-domain microbial life form within the blood, also described previously within the paper series. The chemical constituents identified will therefore be listed separately for each layer, and overlap can therefore be established even though the gross physical appearance of each layer is distinct from one another. This work is offered to signal to formal laboratories the chemical constituents that are likely to be identified within blood samples, as well as are likely to be associated with the blood coagulation phenomena reported at the onset of this series.

Blood Subjected to Electrical Current: Foam Precipitate Candidate Chemical Constituents:

- 1. Halogens (Cl, Fl, Br, I)
- 2. Peroxide (H₂0₂,oxidizer)
- 3. Hydrazoic Acid (HN₃)
- 4. Electrolytes (Na, Ca, Mg, etc.)
- 5. Metals in ionic form (Fe, Al, Mn)
- 6. Nitrogen & Sulfur compounds

Blood Subjected to Electrical Current: Settled Layer Candidate Chemical Constituents:

- 1. Halogens (CI, Br)
- 2. Peroxide (H₂0₂,oxidizer)

- 3. Phosphate compound (H3PO4)
- 4. Metals in ionic form (Ca, Fe, Mg, Al)
- 5. Hydrazoic Acid (HN₃)
- 6. Iron cyanide complex [Fe(CN6)]
- 5. Metals in ionic form (Fe, Al, Mn)
- 6. Nitrogen & Sulfur compounds

An extended paper could be written on the implications of many of the above compounds existing in blood; this will not be completed or repeated here. Brief comments will be made. To establish the precedent for discussion, each of these terms can be searched within the historical record of research of Carnicom Institute. Some of the references found will include:

1. Halogens:

With the exception of iodine, the halogens are serious toxic agents in the body. Disruption of iodine in the body also, however, is a serious issue and affects the functioning of the thyroid in major ways including general metabolism.

Precedent references:

- 1. <u>Carnicom Institute Newsletter Summer 2019</u> (Jul 2019)
- 2. Morgellons : A Supplemental Discussion, (Jan 2017)
- 3. <u>A Week in the Life of Carnicom Institute</u> (May 2016)
- 4. Tertiary Rainwater Analysis : Questions of Toxicity (Nov 2015)
- 5. Preliminary Rainwater Analysis : Aluminum Concentration (Nov 2015)
- 6. CDB Lipids : An Introductory Analysis (Mar 2015)

7. <u>Morgellons : A Working Hypothesis Part III – Potential Mitigating Strategies</u> (Dec 2013) [EMPHASIS UPON THIS PAPER]

8. <u>Morgellons : A Working Hypothesis Part II – Potential Health Impacts of the Various Functional Groups</u> <u>and Components</u> (Dec 2013) [EMPHASIS UPON THIS PAPER]

- 9. Morgellons : A Working Hypothesis Part I Identification (Dec 2013) [EMPHASIS UPON THIS PAPER]
- 10. Carnicom Institute : Index of Laboratory Notebooks (Vol 1-25)
- 11. <u>CI Laboratory Notebook</u>s (Jan 2012, Vol 4, Page 172)

2. Oxidation:

The issue of oxidation equivalently receives priority attention within the historical research of Carnicom Institute. The same for anti-oxidants.

Precedent references:

- 1. <u>Carnicom Institute Newsletter Summer 2019</u> (Jul 2019)
- 2. The Discovery of Thiocyanates within the Cross-Domain Bacteria (Jun 2018)
- 3. Morgellons : A Supplemental Discussion, (Jan 2017)
- 4. Preliminary Rainwater Analysis : Aluminum Concentration (Nov 2015)
- 5. <u>CDB Lipids : An Introductory Analysis</u> (Mar 2015)
- 6. CDB: Growth Progressions (Jun 2014)
- 7. Biofilm, CDB and Vitamin C (Apr 2014)
- 8. Growth Inhibition Achieved (Jan 2014)

9. <u>Morgellons : A Working Hypothesis Part III – Potential Mitigating Strategies</u> (Dec 2013) [EMPHASIS UPON THIS PAPER]

10. <u>Morgellons : A Working Hypothesis Part II – Potential Health Impacts of the Various Functional</u> <u>Groups and Components</u> (Dec 2013) [EMPHASIS UPON THIS PAPER]

11. <u>Morgellons : A Working Hypothesis Part I – Identification</u> (Dec 2013) [EMPHASIS UPON THIS PAPER]

- 12. Morgellons : A Working Hypothesis Introduction (Dec 2013)
- 13. Morgellons : The Breaking of Bonds and the Reduction of Iron (Nov 2012)
- 14. Amino Acids Verified (Nov 2012)
- 15. Morgellons : A Thesis (Oct 2011)
- 16. Morgellons : In the Laboratory (May 2011)
- 17. Morgellons : The Extent of the Problem (Jun 2010)
- 18. Morgellons : Growth Inhibition Confirmed (Mar 2010)
- 19. Morgellons : A Discovery and a Proposal (Feb 2010)

20. <u>Artificial Blood(?)</u> (Aug 2009) [Note that a search for research papers on blood will bring up an extensive list of relevant papers to this paper as well.]

(Partial Listing:)

- 21. Carnicom Institute : Index of Laboratory Notebooks (Vol 1-25)
- 22. CI Laboratory Notebooks (Apr 2017, Vol 18, Page 297)
- 23. <u>CI Laboratory Notebook</u>s (Jul 2011, Vol 3, Page 98)
- 24. <u>CI Laboratory Notebook</u>s (Jul 2011, Vol 3, Page 195)
- 25. <u>CI Laboratory Notebook</u>s (Jul 2011, Vol 3, Page 158)
- 26. <u>CI Laboratory Notebook</u>s (Apr 2009, Vol 1, Page 60)
- 27. <u>CI Laboratory Notebook</u>s (Jan 2012, Vol 4, Page 235)
- 28. CI Laboratory Notebooks (Sep 2017, Vol 21, Page 255)
- 29. <u>CI Laboratory Notebook</u>s (Sep 2017, Vol 21, Page 258)
- 30. <u>CI Laboratory Notebook</u>s (Jul 2011, Vol 3, Page 157)
- 31. <u>CI Laboratory Notebook</u>s (Apr 2009, Vol 1, Page 97)
- 32. <u>CI Laboratory Notebook</u>s (Jul 2011, Vol 3, Page 100)
- 33. CI Laboratory Notebooks (Apr 2017, Vol 18, Page 94)
- 34. CI Laboratory Notebooks (Apr 2017, Vol 18, Page 204)
- 35. <u>CI Laboratory Notebook</u>s (Feb 2010, Vol 2, Page 10)
- 36. CI Laboratory Notebooks (Feb 2010, Vol 2, Page 16)
- 37. CI Laboratory Notebooks (Jan 2012, Vol 4, Page 236)
- 38. CI Laboratory Notebooks (Apr 2009, Vol 1, Page 97)
- 39. <u>CI Laboratory Notebook</u>s (Apr 2009, Vol 1, Page 100)
- 40. <u>CI Laboratory Notebook</u>s (Jul 2011, Vol 3, Page 39)
- 41. <u>CI Laboratory Notebook</u>s (Jul 2011, Vol 3, Page 157)
- 42. <u>CI Laboratory Notebook</u>s (Jul 2011, Vol 3, Page 98)
- 43. <u>CI Laboratory Notebook</u>s (Feb 2010, Vol 2, Page 280)
- 44. <u>CI Laboratory Notebook</u>s (Apr 2015, Vol 9, Page 178)
- 45. <u>CI Laboratory Notebook</u>s (Aug 2016, Vol 16, Page 183)
- 46. <u>CI Laboratory Notebook</u>s (Apr 2015, Vol 9, Page 207)
- 47. <u>CI Laboratory Notebook</u>s (Feb 2010, Vol 2, Page 19)

- 48. <u>CI Laboratory Notebook</u>s (Apr 2017, Vol 18, Page 203)
- 49. <u>CI Laboratory Notebook</u>s (Sep 2016, Vol 17, Page 76)
- 50. <u>CI Laboratory Notebook</u>s (Apr 2015, Vol 9, Page 182)
- 51. <u>CI Laboratory Notebook</u>s (Jan 2012, Vol 4, Page 108)
- 52. <u>CI Laboratory Notebook</u>s (Jan 2012, Vol 4, Page 120)
- 53. <u>CI Laboratory Notebook</u>s (Jul 2011, Vol 3, Page 94)
- 54. CI Laboratory Notebooks (Feb 2010, Vol 2, Page 18)
- 55. <u>CI Laboratory Notebook</u>s (Apr 2009, Vol 1, Page 122)
- 56. <u>CI Laboratory Notebook</u>s (Feb 2010, Vol 2, Page 10)
- 57. <u>CI Laboratory Notebook</u>s (Feb 2010, Vol 2, Page 16)
- 58. <u>CI Laboratory Notebook</u>s (Jan 2012, Vol 4, Page 236)
- 59. <u>CI Laboratory Notebook</u>s (Apr 2009, Vol 1, Page 59)
- 60. CI Laboratory Notebooks (Jul 2011, Vol 3, Page 174)
- 61. <u>CI Laboratory Notebook</u>s (Jul 2011, Vol 3, Page 195)
- 62. <u>CI Laboratory Notebook</u>s (Jul 2011, Vol 3, Page 82)
- 63. <u>CI Laboratory Notebook</u>s Jul 2011, Vol 3, Page 151)
- 64. <u>CI Laboratory Notebook</u>s Jul 2011 Vol 3, Page 102)
- 65. <u>CI Laboratory Notebook</u>s (Jan 2012, Vol 4, Page 204)
- 66. <u>CI Laboratory Notebook</u>s (Jul 2011, Vol 3, Page 90)
- 67. <u>CI Laboratory Notebook</u>s (Jan 2012, Vol 4, Page 122)
- 68. <u>CI Laboratory Notebook</u>s (Jan 2012, Vol 4, Page 123)
- 69. <u>CI Laboratory Notebook</u>s (Jul 2011, Vol 3, Page 101)
- 70. <u>CI Laboratory Notebook</u>s (Feb 2010, Vol 2, Page 264)
- 71. <u>CI Laboratory Notebook</u>s (Feb 2010, Vol 2, Page 282)
- 72. <u>CI Laboratory Notebook</u>s (Jan 2012, Vol 4, Page 122)
- 73. <u>CI Laboratory Notebook</u>s (Feb 2010, Vol 2, Page 283)
- 74. CI Laboratory Notebooks (Feb 2010, Vol 2, Page 324)
- 75. <u>CI Laboratory Notebook</u>s (Apr 2017, Vol 18, Page 209)

- 76. <u>CI Laboratory Notebook</u>s (Feb 2010, Vol 2, Page 23)
- 77. <u>CI Laboratory Notebook</u>s (Jan 2012, Vol 8, Page 156)
- 78. <u>CI Laboratory Notebook</u>s (Feb 2010, Vol 2, Page 327)
- 79. <u>CI Laboratory Notebook</u>s (Jan 2012, Vol 16, Page 186)
- 80. CI Laboratory Notebooks (Apr 2017, Vol 18, Page 228)
- 81. <u>CI Laboratory Notebook</u>s (Feb 2010, Vol 2, Page 6)

3. HN3:

Hydrazoic acid (HN_3) is a new candidate on the list within the approximate 25 year history of research. It is also true that the recent electrochemical work is the most comprehensive and thorough study in inorganic analysis that has been conducted thus far. The half-reaction under review here is:

 $3/2 N_2(g) + H^+ + e - -> HN_3$

If the existence of hydrazoic acid is confirmed **as a product of the electrochemical process upon blood samples**, it does represent a significant threat to human health at low concentrations. It is a colorless liquid at room temperature and pressure. It is toxic and is recorded to produce the following effects at 0.3ppm:

a) Under inhalation, it produces structural or functional changes in the alveoli and bronchi.

b) It causes changes in the central nervous system.

c) It causes change in the cardiac rate.

Study and trials of the nature recorded within this research series will need to be conducted to confirm or refute this finding. Numerous repetition trials were performed to arrive at this candidate result, and the redox voltage encountered is unusual in its own right in comparison to most reactions (-3.33V). If any direct information contrary to this finding becomes available, it will be evaluated and integrated within this report as is appropriate.

4. Electrolytes:

Common electrolytes such as sodium, magnesium, and calcium are anticipated to be in blood. Concentrations and ratios of such electrolytes, however, are a very worthy enterprise of study either before or after being subjected to the electrochemical process.

5. Metals:

An excess of aluminum within the body is not regarded with favor, as is now commonly known. As always, concentration is a paramount consideration. Unnecessary environmental exposure is established to be detrimental and some relevant CI research papers are at hand:

- 1. Preliminary Rainwater Analysis : Aluminum Concentration (Nov 2015)
- 2. Global Validation (Nov 2017)
- 3. *Environmental Filament Project : Metals Testing Laboratory Report* (Aug 2017)
- 4. Morgellons : A Supplemental Discussion, (Jan 2017)
- 5. The Demise of Rainwater (Jun 2016)
- 6. Tertiary Rainwater Analysis : Questions of Toxicity (Nov 2015)
- 7. Secondary Rainwater Analysis : Organics & Inorganics (Nov 2015)
- 8. Morgellons : A Working Hypothesis Part III Potential Mitigating Strategies (Dec 2013)

9. <u>Morgellons : A Working Hypothesis Part II – Potential Health Impacts of the Various Functional Groups</u> <u>and Component</u>s (Dec 2013)

- 10. Morgellons : A Natural Medicine Approach (Jan 2008)
- 11. Calcium and Potassium (Mar 2005)
- 12. Natural Medicine for the Times (May 2003)
- 13. Drought Inducement (Apr 2002)
- 14. The Expected Composition (May 2002)
- 15. <u>Aerosols and Magnetism</u> Interview (Nov 2001)
- 16. Rainwater Samples : MIcroscope Views II (Aug 2001)
- 17. Ionization Apparent (Feb 2001)
- 18. Carnicom Institute : Index of Laboratory Notebooks (Vol 1-25)
- 19. <u>CI Laboratory Notebook</u>s (Jan 2012, Vol 4, Page 126)

Iron is a fundamental and primary component of blood. That says nothing, however, about the microbial disruption and chemical transformation of iron that is extensively documented within the research. This alteration is at the heart of respiration and energy flow of the body and fundamental to life itself. The CI literature on this issue is extensive and quite serious:

As there are conservatively more than 100 relevant research papers on the issue of iron on this site, they will not be listed here. However, a search on the site listed below will provide sufficient material to begin this process of discovery:

1. Carnicom Institute : Search Listing for Papers Relevant to Iron Disruption and Alteration (1999-2022)

In addition, the CI Laboratory Notebooks will demonstrate considerable devotion of effort towards this topic:

2. Carnicom Institute : Index of Laboratory Notebooks (Vol 1-25)

As we do see a listing for an iron-cyanide complex, it is probably helpful to make brief mention of the cyanide – cyanate topic that is more deeply embedded in unpublished CI work. In addition to the references below, this topic will also be found within the <u>CI laboratory notebooks</u> and the extensive <u>infrared spectra library also now available on this site.</u>

1. The Discovery of Thiocyanates within the Cross Domain Bacteria (Jun 2018)

- 2. <u>A Point of Reckoning III</u> (Oct 2017)
- 3. A Point of Reckoning II (Sep 2017)
- 4. Morgellons : A Supplemental Discussion, (Jan 2017)
- 5. Morgellons : A Working Hypothesis Part III Potential Mitigating Strategies (Dec 2013)

6. <u>Morgellons : A Working Hypothesis Part II – Potential Health Impacts of the Various Functional Groups</u> <u>and Component</u>s (Dec 2013)

7. Morgellons : The Breaking of Bonds and the Reduction of Iron (Nov 2012)

8. Morgellons : A Thesis (Oct 2011)

It is to be mentioned that micro-scale pyrolysis of the CDB metabolic products may have produced a significant health reaction involving the neck-thyroid region of an individual. Although not described in detail, the notes involving pyrolysis examination are detailed within CI Laboratory notebooks, along with concurrent gas chromatography study. This work is recorded primarily in volumes 11, 19. 20 and 22 of the laboratory notebooks.

9. Carnicom Institute : Index of Laboratory Notebooks (Vol 1-25)

Please also recall the series of devastating toxicology reports also involving micro-level solutions of CDB metabolic products applied to plants, protozoa and other life forms. Genetic mutation is also evident within.

- 10. Morgellons Toxicity : A Continued Report (May 2019)
- 11. <u>A Toxicology Study</u> (Dec 2018)
- 12. Protozoa Motility and Mortality (Dec 2018)

H3P04 – Phosphoric Acid

All of the listed constituents are of eventual significance. H3PO4 is another example of such a compound; this is phosphoric acid. This compound has been previously encountered within the work. The record of this is deeply embedded within the laboratory notes more than it has been published publicly. That identification of phosphoric acid represents a turning point in the evolution of the CDB culturing processes that evolved the years. It required considerable work over the years to arrive at the conclusion of its existence within the CDB.

Phosphoric acid is able to weaken and damage teeth and bones. An excess of phosphoric acid can lead to heart and kidney problems, muscle loss and osteoporosis.

The invesigation and role of phosphorus in the research history is partially enumerated below:

- 1. Morgellons : A Supplemental Discussion, (Jan 2017)
- 2. The Demise of Rainwater (Jun 2016)
- 3. <u>A Week in the Life of Carnicom Institute</u> (May 2016)
- 4. Tertiary Rainwater Analysis : Questions of Toxicity (Nov 2015)
- 5. <u>CDB Lipids : An Introductory Analysis</u> (Mar 2015)
- 6. *Morgellons : A Working Hypothesis Part I Identification* (Dec 2013)
- 7. Morgellons : A Thesis (Oct 2011)
- 8. Carnicom Institute : Index of Laboratory Notebooks (Vol 1-25)
- 9. <u>CI Laboratory Notebooks</u> (May 2019, Vol 25, Page 250)
- 10. <u>CI Laboratory Notebook</u>s (Dec 2018, Vol 24, Page 271)
- 11. <u>CI Laboratory Notebook</u>s (Dec 2018, Vol 24, Page 281)
- 12. <u>CI Laboratory Notebook</u>s (Dec 2018, Vol 24, Page 226)
- 13. <u>CI Laboratory Notebook</u>s (Dec 2018, Vol 24, Page 227)
- 14. <u>CI Laboratory Notebook</u>s (Jun 2018, Vol 23, Page 168)

15. <u>CI Laboratory Notebook</u>s – (Aug 2016, Vol 16, Page 204)
16.<u>CI Laboratory Notebook</u>s – (Jun 2018, Vol 23, Page 170)
17. <u>CI Laboratory Notebook</u>s – (Jan 2012, Vol 04, Page 161)
18. <u>CI Laboratory Notebook</u>s – (Jan 2012, Vol 04, Page 163)
19 <u>CI Laboratory Notebook</u>s – (Jun 2018, Vol 23, Page 168)
20. <u>CI Laboratory Notebook</u>s – (Dec 2018, Vol 24, Page 231)
21. <u>CI Laboratory Notebook</u>s – (Dec 2018, Vol 24, Page 243)
22. <u>CI Laboratory Notebook</u>s – (May 2019, Vol 25, Page 249)
23. <u>CI Laboratory Notebook</u>s – (Sep 2016, Vol 17, Page 41)
24. <u>CI Laboratory Notebook</u>s – (Apr 2017, Vol 18, Page 251)

Next, let us see what we can learn, at least in part, from the near infrared data that is also available from the recent examination of blood. Infrared analysis is oriented more strongly to organic analysis. While near infrared (NIR) is limited in respects in comparison to mid infrared data, it still has considerable value at a macro level, and in this case serves as a valuable collaborator of the electrochemical work as well as past research. In Vol 27 of the <u>CI Laboratory Notebooks</u>, the following information is recorded:

Foam – Precipitation (Upper Layer)	Settled Layer
CH3	RNH2
CH2	ROH
ROH	CH2
СН	Ar
Ar	CH3
ArOH	ArCH
ArCH	ArOH

Functional Groups Identified by Near Infrared Analysis

Identification of organic functional groups (e.g, ROH) via mid infrared analysis has been a mainstay of the Carnicom Institute research for many years. There is a vast <u>library of infrared spectra</u> that have been gathered and analyzed to the degree possible. Infrared spectrometry is a profession in itself, and there remains a wealth of information yet to be uncovered and discovered with the professional examination of that library. Blood samples are a core sample type within that analysis. An one example of the historic precedence and importance of that analysis, the paper entitled <u>Morgellons : A Working Hypothesis Part I</u> – <u>Identification</u> (Dec 2013) is devoted largely to the pursuit or functional group analysis. The proposals generated within that paper have largely borne themselves to be confirmed over successive years of research. Although the functional group identification with NIR is fairly minimal, what can be learned from it is nevertheless important and helpful.

Of greatest interest here will be the presence of the aromatic groups (Ar, ArCH and ArOH), the ROH, and the RNH2 functional groups. Although these groups will no longer be discussed in great detail at this point, they do provide an important layer of corroboration over the entire work history of CI.

The ROH group is a functional group that indicates likely solubility in water. The hydroxyl group (OH) detection is one of the most fundamental and important groups to detect as water solubility, and especially that of a water soluble protein, is crucial to understanding expected chemical behavior. Water is a primary constituent of the human form, and therefore water soluble chemistry is expected and certain to affect the body in inummerable ways. A water soluble protein in the blood will undoubtedly be expressive of the homogeneous distribution of that protein within the body. Water soluble proteins are of special interest in the field of biochemistry. The "R" in functional group analysis, i.e., ROH, refers to any organic structure that is in combination with the hydroxyl group, a "wild card", so to speak...

The aromatic groups (Ar) are an equally important aspect of biochemistry, and chemistry in general. The archetype of aromatic chemistry is the benzene ring, known for its stability and its ability to form chains or polymers. A great deal of attention has been paid to the infrared detection of aromatic groups in the past, and the interest remains as strong to the present day. Readers may note this same topic brought forth in the latter portion of the Carnicom Institute Disclosure Project; aromatic chemistry has been a focal point of chemical study since infrared equipment first became available.

Furthermore, the detection of ArOH and ArCH groups further extends the interest in aromatic groups within the protein. The combination of the Ar (aromatic) and OH (hydroxyl) is an interesting combination chemically as it therefore imparts both stability and solubility to the compound. The typical aromatic (e.g., polymer) would seldom be soluble and to bring that property into the compound raises more interesting possibilities. The ArOH group in its most basic form is that of phenol, from a chemical standpoint.

The ArCH group provides for the joining of aliphatic carbon compounds (e.g., carbon chains) with the aromatic.

The RNH2 (amine) group is highly corroborative of the protein confirmation made in the earlier stages of the research.

In general, the near infrared information acquired within this analysis is highly confirming and corroborative of all past research of Carnicom Institute.

One final topic remains to be covered within this paper, and this is the subject of enzymes. Enzymes play a major role within the digestion of proteins, i.e. the action of breaking down or dismantling a protein structure. A natural question arose within this research, and this is whether enzymes might have any benefit or role in disrupting the state or existence of the foreign proteins in the blood sample, as they have been discovered through electrochemical investigation. The work is quite introductory at this stage, but the results do indicate that it is a viable research path to pursue.

The work consists of two primary stages:

1. Subject known proteins to enzymatic activity and determine if chemical alteration occurs and can be recorded.

2. Subject the foreign proteins within the blood to the same enzymatic activity and determine if similar chemical alteration takes place.

The method available and chosen to due this is with visible light spectrometry, i.e., looking for spectral comparison of known protein decomposition with that of the CDB proteins identified within this report series. The result of the trial is positive, in that the spectra of both cases showed equivalent alteration after subjection to enzymes. This provides at least one pathway of investigation to disruption of foreign protein formation or existence within the blood.

Those familiar with the <u>Carnicom Institute public presentation in 2019</u> may recall mention of a hope for advanced research that is yet to take place, and this is inhibition of foreign protein development as a fundamental strategy in disease prevention. The existence of several unique and specific CDB proteins has been established over the years through the research of Carnicom Institute. The proper and comprehensive knowledge of protein structure and composition remains critical to any such success in the future.

Please preserve and distribute this report globally as it develops. Thank you.

Clifford E Carnicom Aug 19 2022

Born Clifford Bruce Stewart, Jan 19 1953.

IN PROGRESS