

Research Article

Room temperature organic superconductor compound prediction based on fractals in mesoscopic-scale regime

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Abstract

Based on paraffin-wax include, volcano-based antimony-bearing, phospholipid, antimony found in gold deposit and TIPSb/triisopropylantimony ever predicted as the room temperature organic superconductor compound. Many flourishing explanations have been declared, from variational method to inductive deduction, with all indicating the presence of $C_9H_{21}O_3Sb.PBr_6$.

We consider that applications in mesoscale regime, at least when using multiscale fractal of critical parameter that affects physical & chemical properties and to adopt "mesoscopic scale" ever stated as "superconductors" by Holmval (2017). Then the mathematical induction of variational method of exploitation on integers & natural numbers herewith paraffin-wax etc can be resembled the ever built antimony containing compounds to keep the realm of predictions.

Introduction

Of all C_xH_ySb determined since June 22, 1998, we found that room temperature organic superconductors, also referred to in N. Breda, et al. – 2000 are not hybrid; that is, they do not contain the metal element as $C_{28}H_4$. John L. Zilko reported TIPSb/triisopropylantimony 2002 as a manner of completion accompanied in ligand-metal-ligand connectivity. First, the use of InSb or GaSb as semiconductors (antimony found to be superconducting in nature when employed as $CeRu_4Sb_{12}$ -Tateda & Ishikawa, 2000) for the superconducting transport mechanism as proposed on Feb 11, 2016 using. Conjugated to triisopropylantimonate $Sb(OH_6) \rightarrow [Sb(III)-HCl-HO_2]$ -system or Twisted Bilayer Graphene (TBG) according to the biologically derived efficiencies of the mechanical stress mechanisms and the coldest temperature ever recorded, that is, 186 K at Vostok in August 1963.

With or without the use of metal, we find that variational methods for mesoscopic superconductors are vital for mesocrystals as nanostructured materials ("a term to designate superstructures of nanocrystals"- [1]) which was coined 10 years ago. Further, C187: $S_N \sim 0.2$, $n_{NaOL} = 2.5$ mmol, which Roy E. Bergström considered as existing in a "molecule bind", where the Hamiltonian governs the reaction of two or

more atoms in the discussion of molecular orbitals presented in Goswami: "Quantum Mechanics".

Specimen formation & beyond the superconductors

Accompanying percentages in Appleyard: "The Conductometer" in the field of measurement technique intended for the comparison of electrical conductivity of copper and other wires, denoting $C_9H_{21}Sb.PBr_6$ with T_iX_j since X are boron, carbon, indium & antimony where $70 < i < 87\%$ atom and $13 < j < 30\%$ atom, instead of isopropyl alcohol + Sb_2O_3 we use a phospholipid (La_2CuO_{4+y} in N. Poccia, et al.) while maintaining the temperature which relates a hydrophilic head and a hydrophobic tail to remove P in $SbHO_3$ for stress transmission transduction in cells.

Wide & extended description of fractal superconductors can be found whereas fractals/multifractals coincides with "metal flakes" which to hierarchial structure, systemic character & organic connectivity the topology concerning intrinsic shapes of regions & bodies its key ideas can be found in real analysis.

Although as TIPSb, the superconducting properties of Sb act as mesoscopic superconductors which exhibit emergence characteristics. We start from Sb as insulator & semiconductors as proposed by P. Dutta, J of Appl Phys Lett.

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[2021], - $C_9H_{21}O_3Sb$ /triisopropyl antimonite [or antimony (III) isopropoxide] was found in PubChem C10:-16685151 & ChemSpider ID:-21170559 by Leon Freedman and G.O.Doak, J. of Organometallic Chemistry, (1984) with PBr_6 as the counter-ion/precursor.

From US-Patent: $SbCl_3 + 3 ROH + 3 NH_3 \rightarrow Sb(OR)_3 + 3 NH_4Cl$

where

R = isopropyl. The NH_4Cl was filtered, and the filtrate was evaporated and distilled to recover the triisopropyl antimonite where the evaporation/fission competition mentioned in Anefalos, et al. Brazilian J of Phys. (Sept- 2004), coincided with “spalled”/knocked out reaction.

Soft matter is crucial theoretical physics of soft condensed matter, where the mechanical response is significantly softer and lower. Soft matter is described as materials that are in-between the atomic/molecule crystals on the one hand and gases and simple liquids on the other hand [2]. They comprise “granular materials” supramolecules and long chain-like molecules/DNA which exhibit self-assembly or self-organization usually found in fractal/multifractal, as in the study by Shillcock & Lipowsky about mesoscopic simulation of membranes, vesicles & nanoparticles (2007) using a particular mesoscopic techniques of dissipative particle dynamics(DPD).

We denote convergence speed as $(1 - \beta' \Delta t) < 1$ of 64 atoms in supercell application, we found that accompany the sociophysics through another class of Snazjd model in “a scale-free random network”/pseudofractal network. Here the governing equation is as well as through active/passive components of DNA-based computers- [3] predicted by Zotos: “antimony.” in coincidences with “antinomies” –E. Schroedinger: “What is Life?”, Mind & Matter, 1967.

Until now, corona discharge (charge and discharge spelled *laden en ontladen*) yet to be adopted by al world institutions and accounts for the first contagion of COVID-19 are in Wuhan. We sought Ren-Shu Wang, et al. from Hubei University, Wuhan wrote “Superconductivity above 120 kelvin in a chain link molecule” which coincided with two applications in mesoscopic-scale regime, at least when using multiscale fractal of the critical parameter that affects physical, mechanical and chemical of the reservoir rock studied based on Scanned Electrom Microscopy [SEM] image [4] and in climate sensitivity on cloud organization [5].

Mathematical deduction and methods

We extend the concept of “there are two scales of conduction pertinent to the model \dot{y}_0 and \dot{y}_0' which along with percolation” as provided by Gang Xiao, et al.- page 38 to adopt “mesoscopic scales” ever stated as “superconductor” by Patrick Holmval [6], as well as described in Galam (2002). Upon comparisons with the results of Breda, et al. we observed “good agreement

with density functional search structure, implying the band structure & DOS/density of state of monolayer MoS_2 ” as in [Fitri & Furqon, 2007] and “Kohn-Sham levels of the neutral (a) negatively charged (b) C_{28} ” [Breda, et al. 2000], p. 131.

Then observed convergence from the size of a supercell as well as in the sequence quoted later, provided $\int 1 - e^{-n}$ are the Cauchy sequence. We seek fractal patterns in prime numbers distribution from Carlo Cartani as well, which are “self-affine fractal cartoons” reported in Luciano Pietronero, 1985.

$$|f_n(x) - f_m(x)| < E.$$

However, if we considered the fractals of $1/f$ dimensions, we found inclusively to “existence of nucleation phenomena”.

Retrospectively, real numbers, real line and real space are expressed as

$$F(x) = \alpha C(x) + \beta S(x) \text{ to}$$

$\xi_i = u_i PB_i + v_i P_i$ [I. Panas: “Super-Atom Representation of HTS”, p. 5].

From isomorphism to Henkel plot here with Figure “Directed graph”, SCIENCE, 1994, “Hamiltonian path problem” –Kumar, ibid., 1999 & Gonzalez, IJMP, 2004.

For bosonic/fermionic properties we refer to “molecular conformations”- D. Guterding, dissertation- 2016 & conformational found in C_2H_6 composition. Further, for freely conversion and interconversion “a connection between CFT” as in FQHE- German Sierra <arXiv:hep-th/9911078v1, Nov 1999> where the SU (2) algebra we adopt the 2-dimensional conformal field theory/transformation- Capelli comprehensively explains composite wave functions derived from Conformal Field Theory [7].

The fractal are originated from “the search for fractional exchange statistics in quasiparticle excitation of the quantum Hall effect” & “efficiency” which can be explained as biological derivatives.

Inclusively with variational method we applied from Xenophon [similar to the deity from Europe] Zotos of transport mechanism in superconductors, conductivity are [Zotos & Prelovsek: “Transport in 1D Quantum System”] whereas to 2-d CFT in conjunction via real numbers- real line – real space above. For the variational method, Gibbs free energy was expressed in the form of Ginzburg-Landau functional:

To ensure perfect conductivity & diamagnetism we used the Landau free energy expansion.

$$\delta F / \delta \Psi^* = \Psi [\alpha + \beta |\Psi|^2]$$

Courtesies of Prof. Rafael M. Fernandez related to real numbers configuration



$$F(x) = \alpha C(x) + \beta S(x)$$

Bartle & Sherbert, 1991.

However, the most important case is the use of variational method in quantum mechanics for approximating energy eigenstate or ground state and certain excited state, which consists of choosing a “trial wavefunction”. The Hartree-Fock method, renormalization group, and Ritz method are applicable for the variational method. We will attempt to explore the deductions in variational methods, such as the eigenvalue problem which are stationary Schroedinger equation in relation to mathematical induction [inclusively work with natural numbers]-R. Narasimhan. Many mathematical facts are established by first observing a pattern, then proposing a conjecture regarding the general nature of the pattern, and finally by proving the conjecture based on existing facts – that are combined in a manner relevant to the conjecture. Consequently, we proceed in a logical manner until the truth of the conjecture is established.

We proposed for: “The sum of the first n even integers is $n(n+1)$ ” there available processes in phospholipid and TIPSb that are similar. Whereas the formula for alkene are $C_nH_{2n+2} = C_nH_{(n)+(n+1)}Sb$ by changing the multiplication to be a sums, however, first, the question is whether they are “sum of the the first n even integers?”.

Results and discussion

Room temperature t_c measurement

For $C_9H_{21}Sb.PBr_6$ resemblance we use isopropylalcohol & Sb_2O_5 whereas for the alkyl in TIPSb/triisopropyl antimony [Seshan, 2002] paraffin-wax C_nH_{2n+2} was obtained from “Paraffin Microactuators”, Lab instruction, Uppsala Universiteit <Paraffin_Lab_eng.pdf>.

The 1 curve in the left of *The specific volume for a crystalline polymer as a function of temperature* was compared → the left curve of “Graph of $h(x) = 1 / (e^{1/x} + 1)$, $x \neq 0$ [Bartle & Sherbert], *op.cit* – p. 132 & to binds the Sb we quotes F.E. Minz in [8].

Certain quotes as it was presented in the Theory of Everything as well as “consistency of biblical scripture and a simple geometric approach in macroeconomics” from the observation of Rowlando Morgan (2017) on buying and selling in the exchange market as well as lending and borrowing in the debt market.

We hope these are universal, whereas the problem for time $t \rightarrow \infty$ followed by the debt//national income ratio $\rightarrow \infty$ will constraining the nation, which cannot be solved by consider the infinity as the integral limit of e as the natural number through the Laplace transform

$$e^{-st} \Big|_0^\infty$$

Abdul Kadir, p. 44 which represents numbers as not ∞ .

Because the all realms of physics are instrumentation industry, it is wishes the room temperature organic superconductor compound resembles the gold-Ore byproduct and volcanic-hosted as well as phospholipid, paraffin wax, triisopropyl alcohol, alkenes and TIPSb [Seshan, 2002]. Thus the DNA-wave biocomputer is a more powerful computer than the fastest and most powerful supercomputer and can be enhanced by all organic and thrift raw econophysics, mediaphysics, finance physics and macroeconomic engineering problem.

Conclusion

Since the discovery of the granular room-temperature superconductor compound Li_2BeH_4 -S. Contreras, et al. “Irréversibilités magnétiques dans un hydrure métallique: Li_2BeH_4 ”, 1997, p. 641-651 there have no reports on room-temperature organic superconductor compounds containing antimony & triisopropyl, which can be implied when the gold ore is sufficient.

This was followed by Per Bak, et al. “Self-organize Criticality” in permutations coinciding with Open Set Condition & Organic Superconductors, left S. Sabhapandit-2002. The reality and events occurring *per se* [by it-self] through Perseus regarding the TIPSb as a room temperature organic superconductor are still prediction.

We attempted to relate to climate change engaged microfossil [Gary S. Dwyer] & $CaCO_3$ of nanofossil first to justify the paradox as in Postner & Sustein [2009]: “Chaos theory & Justice Paradox” to which from. A CfD/Contracts for difference is a private law contract between the developer of low-carbon electricity and the government-owned LCCC/Low Carbon Contracts Company provided we guide it to receive from wherein for the $C_9H_{21}O_3Sb.PBr_6$.

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