

1999 SYMPOSIUM ON RADIANT ENERGY
PROCEEDINGS by *Bruce A. Perreault*

In 1996 my research was publicly announced. The focus of this research many people have come to know as "Radiant Energy." I can still recall the excitement that was caused by this announcement.

Today, two key sources of energy will be presented. They hold the greatest promise in retrospect to all other sources of energy that I have researched.

I now draw your attention to the first energy source to be presented. The main component that generates electrical power may at first glance appear to be nothing more than an atomic battery, it will be seen from the description to follow that its energy generating mechanism is entirely unique, and that the advantages over prior art atomic battery technology becomes apparent from the following description.

Perreault Radiant Energy (RE)-Valve

There is a source of energy that could provide us with all of our energy needs for countless of generations. With this energy we can reach for the stars, or at the very least explore our own solar system. The fuel that I speak of is called Polonium. It releases more energy than any single element ever to be discovered by man or woman. Polonium was the first element discovered by Madame Curie in 1898 while seeking the cause of radioactivity of pitchblende. Her electroscope showed it separating with bismuth. Polonium is also called Radium F. Polonium is a very rare natural element. Uranium ores contain only about 100 micrograms of this element per ton. It is found in Radium and its abundance is only about two tenths of one percent. In 1934, it was found that when natural bismuth-209 was bombarded by neutrons, bismuth-210, the parent of polonium, was created. Milligram amounts of polonium are now prepared this way, by using the high neutron fluxes of nuclear reactors. Polonium-210 is a low-melting, fairly volatile metal, 50% of which is vaporized in air in 45 hours at 131°F. It is an alpha emitter with a half-life of 138.39 days. A milligram emits as many alpha particles as five grams of radium. This represents a whopping five curies per 1/1000th of a gram, making Polonium 5,000 times more powerful than radium. The energy released by its decay is so large (140W/g) that a capsule containing about half a gram reaches a temperature above 932°F. A few curies of polonium exhibits a blue glow, caused by excitation of the surrounding gas. Almost all its alpha radiation is stopped within the container that it is stored, where it gives up its energy. For these reasons polonium is an attractive lightweight source of energy. Twenty five isotopes of polonium are known, with atomic masses ranging from 194 to 218. Polonium-210 has been the most readily available. Isotopes of mass 209 (half-life 103 years) and mass 208 (half-life 2.9 years) can be prepared by alpha,

proton, or deuteron bombardment of lead or bismuth in a cyclotron, but this method has proved to be quite expensive. My solution is to extract the radon gas that radioactive ores generate. Radon-222 decays to polonium in about three or four days. Better yet, thoron gas, known as radon-220, decays in less than ten hours to polonium. Polonium is a pure alpha emitter and my tube design will absorb this type of radiation and convert it to useful electrical energy.

Radioactive emanations expelled from radium, thorium or radioactive ores can be concentrated on a negatively charged conductor. Radioactive matter decays and expels *emanations* that will travel to a negative electrode. The collecting distance will depend on the potential of the charged wire. This emanation, is widely known as **radon** gas, it will decay to **polonium** in a few days. If **thoron** (radon-220) gas is generated then the decay is almost instant. See Charts I & II.

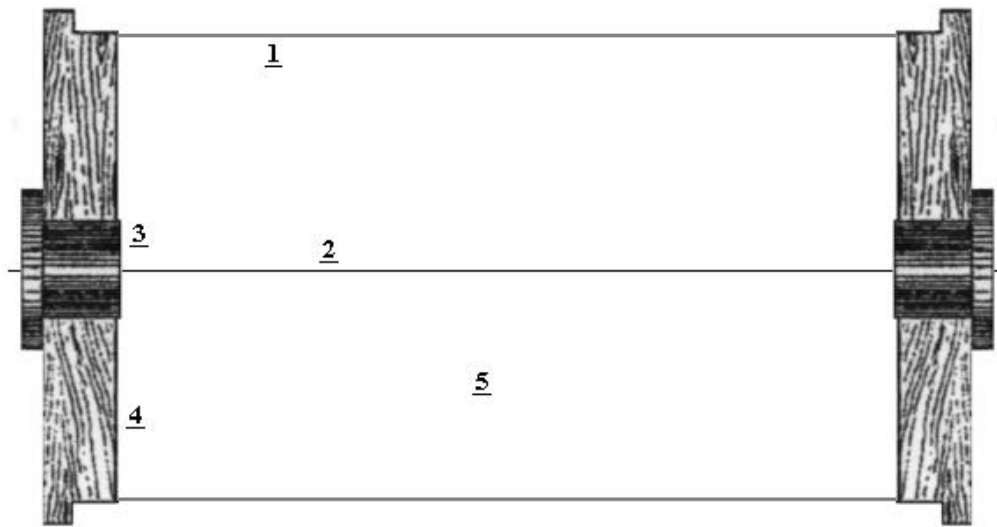


Figure #1

Polonium is deposited on a thin wire forming a cathode represented by **2** here in *figure #1* in the above drawing. *Electrons* (electricity), are emitted from this wire. These electrons rush towards the cylinder anode **1**, thus, generating electrical current. This is no ordinary “atomic battery.” The plated polonium heats the cathode wire **2** dislodging millions more electrons than a cold cathode would in a conventional atomic cell.

One of my unique tube designs will generate the high-voltage normally associated with atomic batteries, however, one of its unique characteristics is that it also converts the heat of the polonium to amperage. A little extra amperage goes a long way in increasing the wattage to higher power levels.

Energy Release by Alpha Disintegration

When positively charged helium atoms (alpha particles) collide with the *electron cloud* that envelopes another atom its' positive charge is canceled by the collision. This is *atomic absorption*. Atoms ring like a bell when this absorption occurs. The ringing generates high energy *x-rays*

(gamma). The wavelength of this generated x-ray depends on the charge of the *alpha particle* and what type of atom it hits. If the x-ray generated has an energy level that exceeds 10 MeV it is absorbed by atoms, in which case the neutrons are raised to excited energy levels. When they return to their ground state they are broken loose from the shells of their parent element. Isotopes may be created by gaining, or destroyed by losing neutrons as a direct result of this process. We can efficiently do this by exposing certain atoms to high energy *alpha particles*. From this model it is clear that nuclear changes can occur by electronic stimulation.

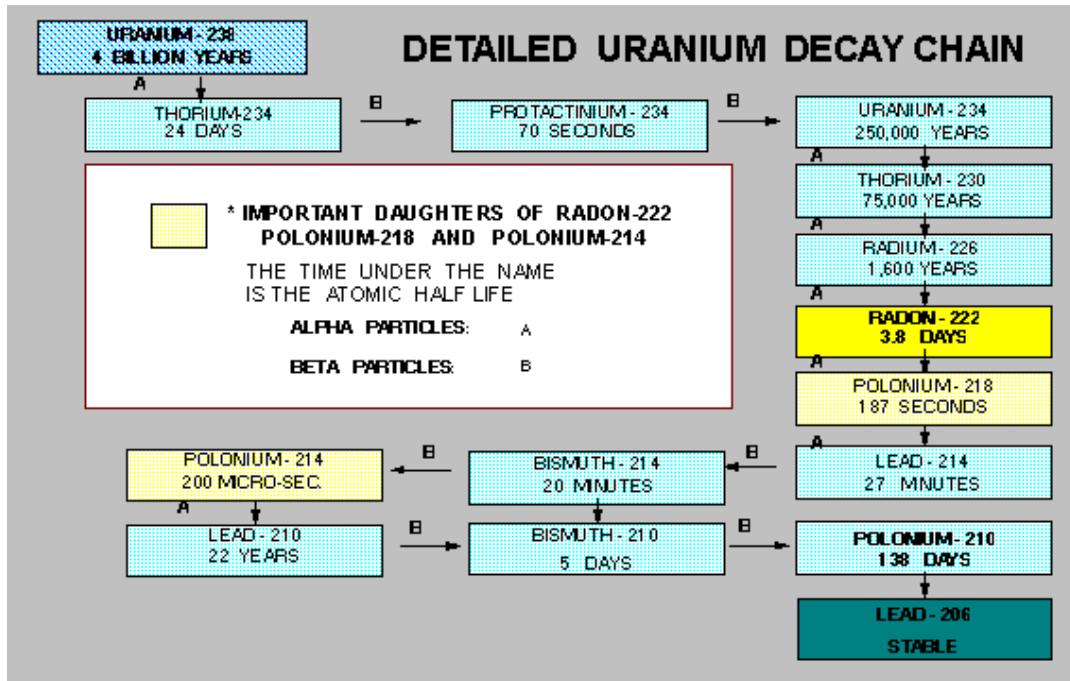


Chart I

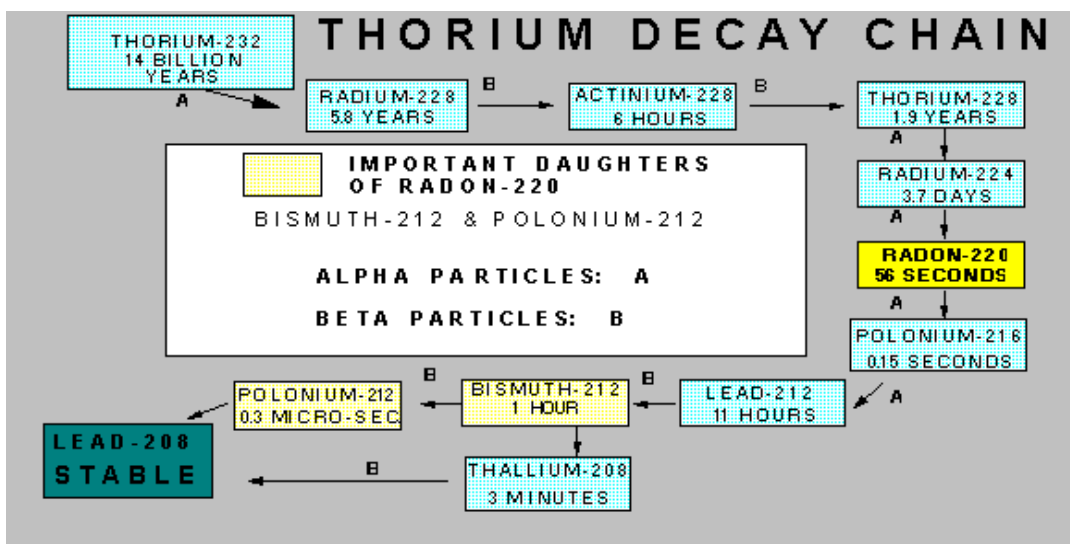


Chart II

As you can see from the charts that if thorium is used as a parent source then there is minimal danger of contamination.

The *Perreault Valve* is a unique way to convert the energy of radioactive particles that are a result of radioactive decay to electrical energy. The energy of an alpha particle will be used as an example. The average alpha particle has a kinetic energy of about 6.00 MeV that will ionize inert gas in the valve.

Therefore, if an alpha particle dissipates all of its energy ionizing an inert gas, about 100,000 electron-ion pairs are generated over a path length of about 4 centimeters (1.5 inches). As a result, a charge of 10^{-14} coulombs can be collected by the electric field inside the valve chamber.

The *Perreault RE-valve* shown in *figure #2* below, has a cylindrical form. It has an axial, positively charged wire anode that extends the length of the cylinder.

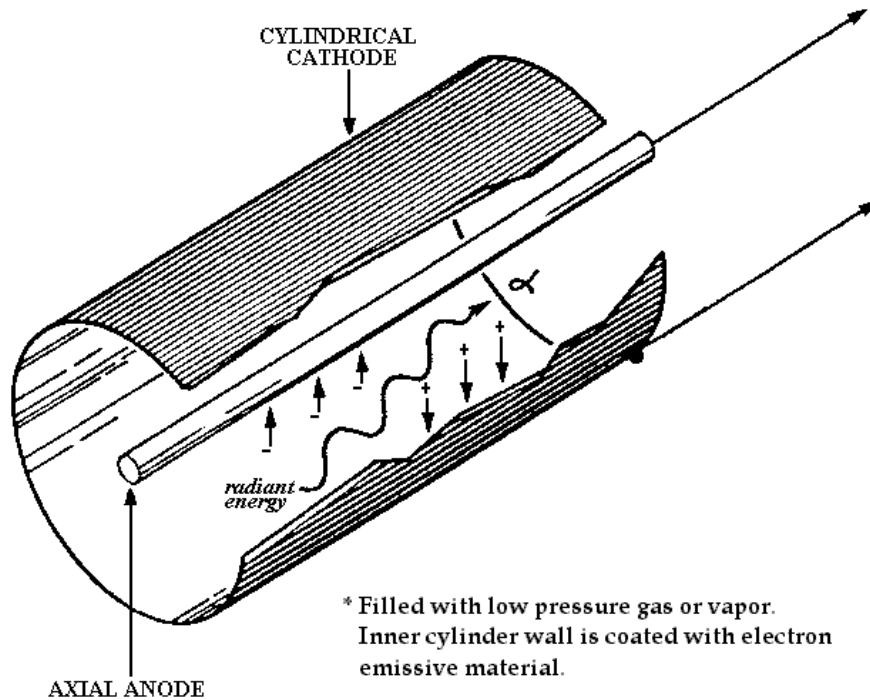


Figure #2

Negatively charged ions (-) are attracted to the positively charged anode and arrive a few microseconds after an ionizing event while positively charged ions (+) are attracted to the negative cathode cylinder liner. A few milliseconds later these positive ions recombine with the negative ions. The result is an intense, short duration of electromagnetic energy. This energy now impinges upon the cylinder's photo emissive material, resulting in a flow of electrical current in one direction. This flow of current acts as a valve to many wavelengths of ionic energy. It prevents ions from returning to their originating source. This valve does not change high-frequency to direct current. It creates an electrical draft that polarizes the atomic ions.

Last but not least is my jewel, radiant energy. It will efficiently light lights, charge batteries, run motors, and power electrical appliances.

It is a very old source of energy, it has been with us since the birth of our planet. It is a clean, natural source of energy. It is my hypothesis that it is the very source that several inventors of yesteryear have tapped into without fully realizing it, with the exception of T.H. Moray.

T. H. Moray's Radiant Energy Discovery

Around the year 1911 T. H. Moray was able to power a 16-candlepower carbon-arc lamp at about half its light output with a simple electrostatic charge obtained from an antenna and ground connection. So, "radiant energy" power generation was born.

In 1912 while Henry Moray was on mission with the Mormon Church in Uppsala, Sweden, he had a passion for crystal radio reception. Every spare moment he searched for a mineral that could possibly work as a radio detector. Moray had found two specimens that worked well as radio detectors. One of these materials could have been a sensitive galena that he found in a hillside and the other was a white, powdery, stone-like material that he found in a railway car, located in Abisko, Sweden. From military records we know for certain that the white material was "fused silica" (silicon metal). Back in the early days quartz (silicon dioxide) was crushed and used for the mining roads. Moray could have taken the powdery quartz material, along with its impurities and fused it with a welding torch knowing that *fused silica* in those days made a good detector for crystal radio. Later this became known as the "Swedish Stone." It is in my opinion that this detector material was actually **lechatelierite** (naturally fused silica, created by a lightning strike). He also knew that the galena taken from the hillside would make a good radio detector material. In fact, he found that he could drive a small horn speaker. Sometime in late spring of 1925 Moray designed a device that could produce high amounts of power. Often times people would demand that he draw too much power and the white, stone-like material would overheat and burn up.

The source of power was obtained from a local radio transmitting station. Later, Moray learned that he could also draw power from the radio frequencies generated by nature. However, the November 11, 1928 Federal Radio Commission allocation assigning low powers and limited frequency slots. Scores of radio stations had in effect been given death sentences. This limited the amount of power that could be obtained from local radio stations. Unfortunately very low power could be had from nature's radio waves. This forced Moray to develop a more favorable detector material. It was not long before he got the inspiration to add radioactive materials to semiconductor materials. After the Radio Allocation of 1928 Moray was not able to receive steady incoming power.

His radiant energy receiver could produce power but it came in regular pulses, it was not constant without the added radioactive material. These radioactive semiconductors cause the incoming energy to be steady. Moray applied for a patent for his cold cathode rectifying tube on March 21, 1931 that used this material. Around World War II radium paint was banned and this spelled trouble for the future of the radiant energy power generator.

The material that Moray found in the hillside could have been a type of *argenti-zinciferrous-galena*. He was able to synthetically duplicate this material. The formula is found in Moray's Electrotherapeutic Apparatus - U.S. Patent No. 2,460,707.

Moray's research with radioactive semiconductors has opened the door to our energy independence. These semiconductors have an increased sensitivity. His greatest achievement was with a triboluminescent zinc mixture consisting of pure zinc sulfide, radioactive impurities, and pure germanium metal. "Artificial radiation" could be used in place of the radioactive impurities. By exposing **bismuth** to radiation emitted from his unique high-voltage powered vacuum-tube that contained radium chloride he was able to create "active bismuth," today known as polonium-210. This is what Moray called "artificial radiation." When added to the zinc sulfide it would glow a bluish-green. When this glowing material was then doped into ultra-pure germanium it made an excellent emitter of secondary electrons. Moray called this new synthetic "fission material." This transistor type material is said to have been superior to the Bell Laboratory transistor materials.

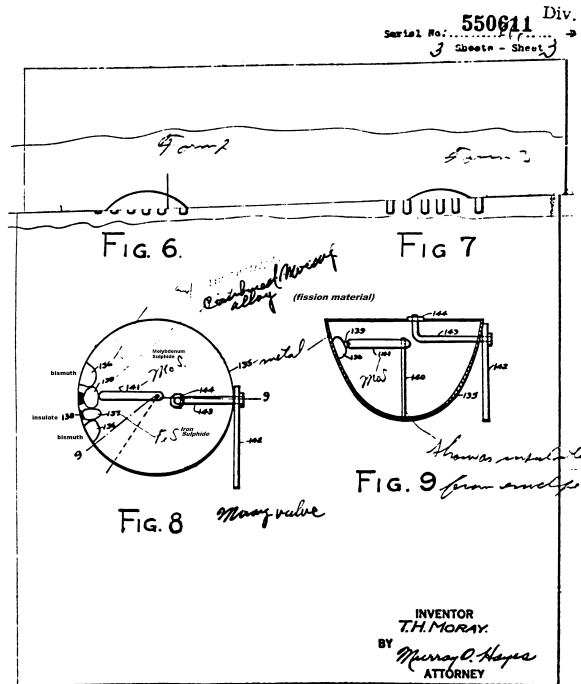


Figure #3

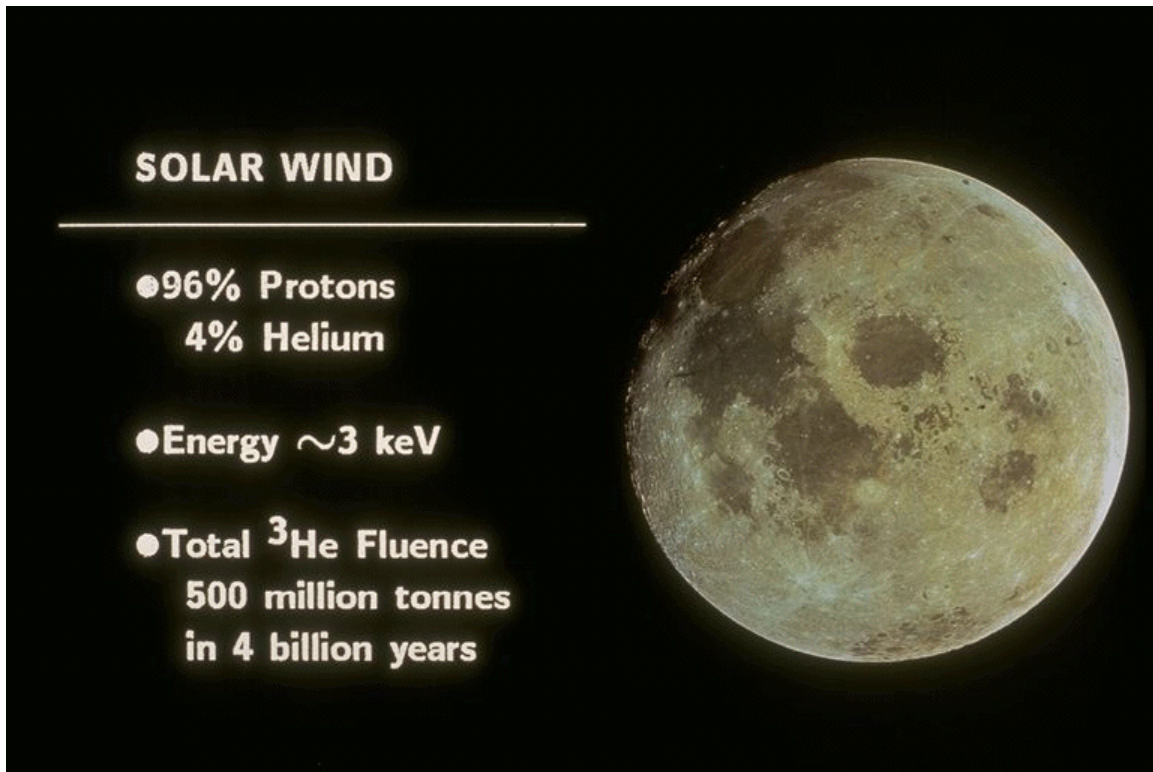
Condenser Discharge Radiant Energy Generator

by Bruce A. Perreault 3/16/99

—It is assumed that the average reader of this treatise will be familiar with the elementary principles of wireless apparatus. Granting this, it is, of course, reasonable to believe that such readers will understand how an oscillating current is set up in a circuit comprising an inductance or coil of wire, a capacity or condenser, and a spark gap. The condenser is charged with a high tension current from any convenient source such as a transformer or induction coil, and when the potential stored up in the condenser reaches a critical value, the air in the gap between the spark gap electrodes can no longer stand the strain, and the condenser discharges across the gap in a succession of crashing sparks. As the current from the condenser crosses the gap in one direction, it literally over-reaches itself just as a pendulum swings past the neutral point when given a push with the hand. When the first rush of current passes in one direction, a reversal of the cycle occurs and a second rush in the opposite direction is effected. This operation is repeated many thousands of times per second, the discharge gradually dies down until all the energy is either completely radiated or used up in heat or performing work. The oscillations cease once the potential across the condenser has been lowered to such an extent that the spark can no longer jump the air gap. The Condenser immediately takes a fresh charge from the transformer and the entire cycle of operations is repeated. It will be understood that all of this passes in an infinitesimal fraction of a second, the charge and discharge of the condenser taking place so rapidly that the observer can detect no change in the solid spark which appears continuously to fill the gap.

—If the oscillating tank circuit has the correct impedance, reactance and inductance it will absorb energy from an external oscillating electrical source, energy is *captured*. The tank oscillations can be kept alive by establishing resonance with the external source, therefore, energy is not drawn from the transformer. In the case of the Radiant Energy Generator, energy is harnessed from natural Earth radio frequencies generated by lightning strikes.

What I have just revealed is the holy-grail of energy. The implications of this discovery are far and wide. Is humankind ready for such a revelation? What you see here is nothing more than a glorified radio receiver, one that is designed to oscillate with the oscillations of the Universe. It locks onto the very wheel-work of nature. This device should last for many years with very little maintenance, no more than for a good radio. Thank you for your interest in my research...



Photograph #1

**—HERE ARE SOME FACTS TO
THINK ABOUT—**

1. The Sun releases *tritium particles* into Stellar Space. See *photograph #1* above.
2. Ionized particles are hurled at the Earth by our Sun 24 hours each and every day.
3. Earth's ozone layer absorbs ions from stellar space.
4. The ozone layer becomes highly charged and is called the "ionosphere."
5. Water vapor (clouds) become charged by induction as they travel parallel to the ionosphere.
6. When clouds become sufficiently charged they release their charge according to Pupin's theory of capacitive discharge. The Energy is released in the form of electrical oscillations (radio waves).
7. There is a cloud discharge one-hundred times each second randomly located somewhere on the planet, generating a tremendous amount of oscillating electrical energy. The total energy per discharge is approximately **two million-million watts**, now times this by one-hundred, and you have an unbelievable amount of unleashed energy.
8. The Radiant Energy Device tunes into nature's radio generator.

References

Radiant Energy Method and Apparatus

U.S. Application No. 60/112,090 Filing Date 12/14/98

Inventors; Bruce A. Perreault, USA & Osmond Callanan, Australia

Foreign Filing License Granted 01/13/99

Method and Means for Generating Explosive Forces

Inventor; Joseph Papp, U.S. Pat. No. 3,680,431 1972

Direct Conversion of Energy

by William R. Corliss 1964

Nuclear Batteries pp. 28-29

The Chemical Effects of Alpha Particles and Electrons

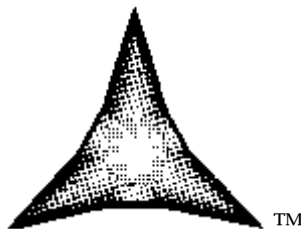
by Samuel C. Lind, Ph.D. 1921

Physical Chemist, U.S. Bureau of Mines

T.H. Moray Research Papers

Collection spanning from 1926 to 1998

Available on CD-ROM.



Nu Energy Horizons Web Research
<http://www.cyberportal.net/nuenergy/main.html>

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