

# **Refining the Fine Lapping Synthetic Material Reinforcement Degree of Evolution— Decide the Future Development of Human Civilization Level**

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## **ABSTRACT**

The reason why human make progress is to pursue a better life. In order to improve the living conditions of human beings, it is necessary to take development of advanced materials as priority, no matter in which social stage. If specific materials with corresponding quantity, quality, form and layout is not found and without necessary knowledge and skills, human beings would be still in the original stage.

## **THE FIRST PART:SIGNIFICANCE OF MATERIAL EVOLUTION FOR SOCIAL PROGRESS.**

### **Discovery And Use of Clay And Copper Raw Materials Influences Cultural Progress in Different Periods.**

Millions of years ago, humans got rid of the world of lower animals, began using bones and stones, and evolved into advanced animals. Five hundred thousand years ago, people began to use fire, material had a greater value. When humans grasp the "epoch-making" material, they began to have a rough processing of the stone and made advantage of scraper, bone, ivory, stone, and plant fabric to make harpoons, hooks, nets, etc. The discovery and use of these materials make human beings get rid of the prehistoric era and come into the original era.

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Between fifteen thousand and ten thousand BC, humans' ability to use traditional raw materials had increased, and make the processing of raw materials be more refined and artistic. Thus labor productivity revolution improved and the early agriculture appeared. The inevitable result of the agricultural revolution is the disintegration of the primitive society. "Copper" was first used as material about seven thousand B.C. Smelting metals, ceramics and domestic animals constitute a new production base. The mastery of combustion technology has increased the importance of clay. Material and its products have a further shape, such as pottery, textiles and knitting products. At this point, the product of human activity has a direct labor. When a special form of labor division occurs, the composition of the labor process is distinguished as follows: labor force, labor tools and labor objects. Nomadic tribes and farming.

Between five thousand and five hundred B.C and four thousand B.C, with the spread of the use of materials and the emergence of irrigation technology, handicraft industry formed so that human beings came into the new historical stage of its existence. Prior to this, an ancient hunter's survival base need hunting area of 20 square kilometers, and the same area can feed 9000 people based on farming. Pottery painting container appeared in this period and containers had considerable artistic value. And they made the handicraft industry separate from agriculture. Second major social division of labor, labor productivity growth.

Thus it can be seen that the understanding of materials and their use of technology to master the social development and progress of human civilization has a decisive significance.

## **THE SECOND PART: THE CONTINUOUS EVOLUTION OF THE MATERIAL COMPOSITION OF THE MATERIAL, LEADS HUMAN CIVILIZATION INTO A MORE ADVANCED SPACE**

In four thousand B. C., the metal copper had more use than the stone. The bronze and its products have been widely used, but the main achievement is the development of bronze. It is incidental to mix copper with other metals, such as lead, zinc, silver, tin and alloy. And people found that the properties of these alloys are better than those of pure copper. The effect of 6 ~ 20% of zinc alloy is better. From ancient times to today's evolution, we all know that the composite material is made up of two or more than two kinds of materials with different properties. Different non-metallic materials can be combined with each other. Non metallic materials can be combined with various metal materials. Different metal materials can also be combined with each other. Two or more complex, retained their respective advantages. The single material cannot be compared, superior comprehensive performance, to become a new type of material. The more perfect composite is composed of high strength, high modulus and high brittleness, low strength, good toughness and low modulus matrix. There are three types of laws, the conventional

composite enhanced dispersion, particle enhanced type, fiber enhanced type. On electrical, magnetic and thermal properties of composite rule, by conductivity, resistance, permeability and heat conduction a decision in accordance with the potential physical and mechanical composite law as compound law is established.

Composite effect can be expressed in many aspects: the combination of electrical and mechanical properties. The glass fiber reinforced plastic can make the electromagnetic wave penetration and has sufficient strength. Combination of optical and mechanical properties is reflected in the fiber reinforced plastics, glass fiber. Polyester resin composite material can be fully transparent and sufficient strength. The combination of thermal and mechanical properties is reflected in the heat resistance and the resistance to ablation. Fiber reinforced metal, fiber reinforced ceramic and particle dispersion strengthened materials and their ablative performance usually than metals and ceramics used alone good. Carbon fiber enhanced composite in the ablation and mechanical properties are greatly improved.

The aim of the multi material composite reinforcement is to obtain better physical properties than the single material. The best synthetic material can be obtained if the compound law of the composite effect is known. The perfect synthesis of materials we pursue, is based on the purpose of invention needs in order to achieve specific functions to supplement its effect and to achieve the functional requirements of reinforced materials. But it has not yet mastered all the physical properties of the compound, which is also the material scientists have to work hard to explore the field. Constantly finding new materials and new laws will promote the evolution of human civilization, science and technology to update the height of social practice. The evolution of the composite material reinforcement of the composite material is actually possible. If we can't do it, it's because humans have not yet mastered the core technology of the composite.

I keep a belief that when civilization and science and technology progress to master the compound law of the universe, our human body can also be improved. Human way of learning can also be like a computer, through the input storage type and getting relevant knowledge from encyclopedia.

Practice is the sole criterion for testing truth. Continuous exploration and research, rigorous scientific practice, is bound to lead human civilization to a more perfect height. Scientific practice requires adequate support of all kinds of resources.

### **THE THIRD PART: THE IMPORTANCE AND THE CONDITIONS OF BUILDING A NATIONAL SUPER STRATEGY REFINED FINE FINISH RESEARCH AND SYNTHESIS MATERIAL STRENGTHENING LABORATORY**

#### **The Establishment of This Laboratory Will Be A Milestone in The Progress of Social Civilization And The Development of High Technology in The Country.**

The service life, operating precision, convenient operation and the improvement of the ideal effect of any material equipment are determined by the performance of the material. Material science research and development has been the domestic industry underestimated. There is a shortage of funds for scientific research and laboratory investment. The domestic development of new materials and new substances are found much lower than foreign countries.

The service life of the machine, robot structure and intelligent machines created by the application scope, can be against high temperature, high pressure resistance, corrosion resistance, abrasion resistance, high strength, high hardness, high flexibility, high adaptability and Nano level. The machine intelligence and enhanced model materials are all focus of exploration and innovation in different countries. Among them, the high tech center is a very important part in the laboratory. Materials science, energy technology and information science are the three pillars of the development of modern science and technology.

The variety and quantity of materials has become an important symbol to measure the level of economic and scientific and technological development of a country. Therefore, it is very necessary to build a national super strategy of science and Technology Center for the research and development of the synthetic material. In the history of scientific development, the development of materials occupies a prominent position. Human history had been using the name of the material as a symbol of division of times. For example, stone age, bronze age, iron age and so on. The emergence of a new material will often lead to the change of production tools and the rapid development of social productive forces.

Material problem solving or not, often become the key to the success or failure of the new technology to create the invention.

- (1) Energy technology requires high temperature resistance, corrosion resistance, radiation resistant materials
- (2) Space technology requires high temperature resistance, low temperature resistance and high specific strength
- (3) High pressure and corrosion resistant materials for marine development
- (4) Electronic technology requires ultra high purity semiconductor materials

The progress of these technologies, all rely on a variety of new materials to play its unique functions and effectiveness. In order to find out the best material manufacturing materials, we must create environment which is much worse than demand environment to test new materials. The new materials that will be discovered tomorrow will be new technologies, new projects and new weapons in the future.

As a common national identity, I strongly request the state to pursue the progress of human civilization and a better life of the vision. I sincerely hope our country can build the national science and technology center, the super strategy of large-scale refined fine finishing research and synthesis of materials testing laboratory.

Construction of refining fine lapping material laboratory, should meet the needs of the super high temperature, super low temperature, ultra high pressure, strong corrosion, super wear resistance and comprehensive of synthetic material strengthening material formulation development condition. The establishment of the laboratory, will be the national social civilization progress and the development of high-tech landmark.

#### **THE FOURTH PART: CUTTING AND SHAPING OF MATERIALS: ENERGETIC RAY LASER KNIFE.**

##### **Multi-party Cooperation Creates A Better Future. Rapid Prototyping of Energetic Ray Laser for Enhanced Intelligent CNC Machine.**

With new materials, nature will not be the problem of cutting and forming. Diversified development of intelligent CNC intelligent machine energy - ray laser equipment has become a top priority in the very move. Laser processing technology does have the valuable features that traditional industry lacks.

Because it is a kind of non-contact processing, and the high energy laser energy and movement speed can be adjusted, you can achieve a variety of processing of target.

(1) It can be used for a variety of metal and nonmetal processing, in particular, can be processed with high hardness, high brittleness and high melting point of the material;

(2) In the process of laser machining, there is no "tool" wear, no cutting force acting on the workpiece;

(3)Laser processing of the work piece heat affected zone is small, the deformation of the work piece is small, the subsequent processing is small;

(4) The laser can be used to process the work piece in a closed container through a transparent medium;

(5)Laser beam is easy to guide and cooperate with the numerical control system for complex work piece processing. It is a very flexible processing method;

(6)The production efficiency is high, the processing quality is stable and reliable. Economic benefit and social benefit is remarkable.

Laser processing technology has been used in many aspects, including laser drilling, cutting and forming, laser welding, laser phase transformation hardening, laser marking, laser cladding and alloying, laser engraving, etc. spread to the aerospace, machinery manufacturing, petrochemical, shipbuilding, metallurgy, electronics, information, bio medical and other areas of expansion at an unprecedented speed and deeply affects the development of national science and technology level. The energy - ray laser processing technology of the enhanced numerical control intelligent machine is a highly flexible and intelligent advanced processing technology. It is a universal processing tool and a common processing method in the new century which will lead to large-scale application of new technology revolution.

#### **THE FIFTH PART: REFINE FINE LAPPING SYNTHETIC MATERIAL REINFORCEMENT MATERIAL FOR THE FUTURE OF HUMAN SIGNIFICANCE**

Refined fine finish research and synthesis material to strengthen the material for the future of mankind. Bio active composite reinforcement material in the life sciences has larger breakthrough. Through the diagnosis and treatment of organisms, replacement the damaged body tissues, organs, or enhancement of their functions. To make bone, tooth and joint, and to repair the defect of human body tissue by using biological activity composite reinforced material. To reconstruct physiological functions that patients get rehabilitation and the quality of life improves. With the development of biological composite material in the field of life science, the human body is no longer fragile and human life will also be diversified. Refined research and synthesis of materials to strengthen the material, to create advanced equipment, the development of advanced technology, to further enhance the quality of life of mankind.

Let science and technology emerge into everyone's creative interest, promote mankind to a higher level of evolution. Mastery of science make human future more beautiful. The strong leader lead a strong country, and people united form a strong nation. I believe that the new era has come. The light of the Chinese dream which is full of hope illuminate the road ahead of the future.