

HELIOTORR PERT STATION REFINERY

COST and NEEDS

Semi-empirical calculations

**EXTRATERRESTRIAL MINING and
REFINING**

BELTS OF ASTEROIDS

in our Solar System and beyond



In our Solar System
Belts of Asteroids
Planets
MOON- MARS-moons

The mining and refining exploitation will be secured under Glycan Space Assets and collateral funding-grants-and private and institutional investors involved in Space Industries.

The main technologies will be developed under the patents PERT granted at International level.

Preliminary comment:

The space adventure in our solar system must take in consideration the corresponding SPACE LAWS even it's a specialized and complex matter at International level included SPACE LAWS (ASTEROIDS).

GENERAL COST of HELIOTORR orbital Station PERT

The technologies involved in PERT are mainly plasma and atomic techniques and radiations.

The fields of applications are:

Natural elements, PMGs (Precious Metals Group) and WATER (light and heavy)

EXOTIC and Disruptive RESEARCH In DEEP SPACE

Note:

In deep space the cosmic radiation and(our Solar System) SEP Solar Energetic Protons is applied to natural or radioactive elements.

Despite of the fact that **belts of asteroids**, MOON or moons, or planets are under elliptical movement, since **billions** of year, we can discover rare atomic species(EXOTIC), **accumulated on the surface** of the asteroids coming from species under Radiative and cosmic waves and particles.

We have specially considered the SOLAR CORONA(first) and Stellar Corona:

<https://www.space.com>

The temperature of the solar corona at million of km of the Sun is 3 to 10 million of Kelvin

We consider this fact as a very important information.

The solar corona can be considered as an excellent Thermal Space Laboratory in order to install experiments.

At which distance of the sun we can install the experiments ? this information is not disclosed under elevated Kelvin temperature 3-to-10 million K, included a possible way for the new exotic atomic elements.

Despite of the fact that **belts of asteroids(in our solar system)**, MOON or moons, or planets are under elliptical movement (gravitational) force , since **billions** of year, we can discover rare atomic species(EXOTIC) accumulated on the surface coming from species under Radiative and cosmic waves and particles.

One can mind also that in the METALLIC core of Asteroids we might find positive traces of BLACK MATTER.

OORT CLOUD 8 BN(billion) of asteroids

For small rocks (several class) it might be several Trillion!

Even OORT Cloud is faraway of our Solar System and only attainable with near relativistic space craft.

Studies begun IARPA-DARPA-NASA-JPL-LOCKHEED-MARTIN

One important part of the R&D for OORT cloud is the **antigravity propulsion and atomic propulsion** and femto fp size BLACK or white HOLE- exotic source of energy completely in good agreement with Quantum Mechanics.

Source : <https://phys.libretexts.org>



One can confirm that this OORT Cloud might be the considerable resources of several class of asteroids include meteors, icy rocks a formidable resources for the mankind survival of our specie.

Source : <https://academic.oup.com>

The Nature gave us his best gifts, but we are not able to enjoy of these gifts for the moment 2024, also because our genetics is not fully adapted to the Deep Space and specialized treks our Solar System.

The more important job will be done by ROBOTICS and MEGA-ROBOTICS tools in Asteroids belts.

More info: <https://glycanspacexr-agency.com>

More info: <https://glycanspacexr-agency.com/space-colonization/>

What are 137 elements?

Untriseptium (/ˌuːntraɪˈsɛptɪəm/), also called eka-dubnium or element 137, is a possible chemical element which has not been synthesized. Due to instabilities, it is not known if this element is possible, as the instabilities may hint that the periodic table ends soon after the island of stability at unbihexium.

Untriseptium - Untriseptium

Search for: [What are 137 elements?](#)

What are the 122 elements?

Are there 126 elements?

Unbihexium, also known as element 126 or eka-plutonium, is a hypothetical chemical element; it has atomic number 126 and placeholder symbol Ubh. Unbihexium and Ubh are the temporary IUPAC name and symbol, respectively, until the element is discovered, confirmed, and a permanent name is decided upon.

Unbihexium

Search for: [Are there 126 elements?](#)

What are the 121 elements?

Can element 136 exist?

Can element 138 exist?

Is there a 200th element?

Why does element 43 not exist?

Does element 93 exist?

Non precious metals, strategic and rare GASES Ar,Xe,He., Silicon 32 , 3He4, Rare Earths included- Y and Sc, and radioactive elements Uranides- Actinides , WATER(H2O-D2O-T2O), vapor diffusion of species of small size

atto- 10-18 a gram or millimeter

femto 10-15 f gram or millimeter

pico- 10-12 p gram or millimeter

nano- 10-9 n gram or millimeter

with classical means of lasers, and Mass Spectrometry Isotopic selection.

Raw materials for Special Alloys and quantum crystals -QuBit-decoherence free-.

Note in deep space we can eliminate decoherence with appropriated tools.

FINANCIAL SEMI-EMPIRICAL VALUES:

Partly empirical, especially involving assumptions, approximations, or generalizations designed to simplify calculation or to yield a result in accord with observation.

Note:

The approximation is done on the basis of classical size of HELIOTORR orbital station 30 meters.

Several options are not indicated as well as propulsion of the HELIOTORR station.(plasma propulsion) and logistic preparation (space craft carriers) with REFINED metals destined to several planets or moons in our Solar System.

COSTS

Include Sub-Contractors: 150 MUS\$

HELIOTORR Station circular (30 meters by 10 meters high), (built on Earth)Raw materials included Alloys and special polymers.
Large structures: 200 MUS\$

Plasma Techniques

Mass spectrometry tools, 6 stages x 6 lines: 250 MUS\$

LASERS high power supply:150 MUS\$

Vapor Selection Vapor station:150 MUS\$

ROBOTICS: 150 MU\$

SECURITIES: 100 MUS\$ (include weaponry).

In all cases the financial needs for a REFINERY in our Solar System might be several \$BN over ten years, 2024-2034.

We cannot calculate a true value of the ROI for Psyche but might be formidable in the case of PSYCHE .

We do not believe in easy money for Mining and Refining as well as indicated by amateurs looking for naïve financiers “pick and sell” PMGs on the asteroids without any specialized legal patented tools or confirmed “know-how”.

We are also shocked by corporates selling milligrams of Regoliths from MOON, several hundred(k\$)and create assets to be considered as tangible assets we consider as assimilated to hoax(s).





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