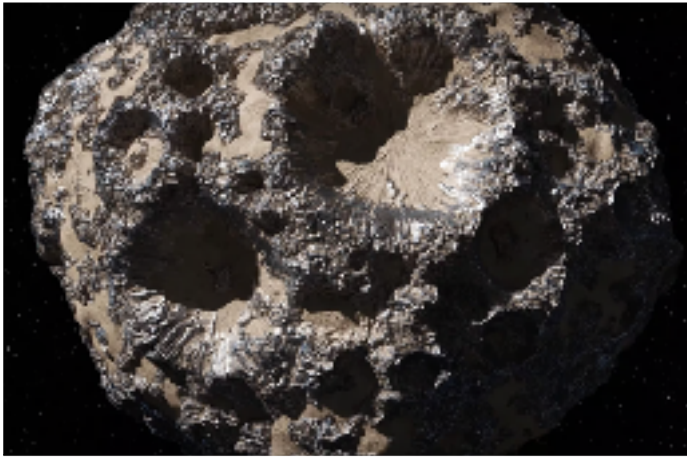


Asteroid Belts and Patents in Our Solar System
Planets, Mars, Moon, Psyche, and Trojan Asteroids



Psyche Asteroid

16 Psyche is a large M-type asteroid, discovered by the Italian astronomer Annibale de Gasparis on 17 March 1852. It was named after the Greek goddess Psyche. The prefix "16" signifies that it was the sixteenth minor planet in order of discovery. [Wikipedia](#)

Spectral type: [M-type asteroid](#)

Mass: 2.72×10^{19} kg

Radius: 113 km

Discovered: March 17, 1852

Gravity: 0.06 m/s²

Discoverer: [Annibale de Gasparis](#)

Orbital period: 1,827 days

NASA's Jet Propulsion Laboratory (JPL) manages the project. The spacecraft will not land on the asteroid but will orbit it from August 2029 through late 2031.

For deep space coordinates, visit: <https://theskylive.com/psyche-info>.

Psyche Exploitation

For more information on the refining and exploitation problems on the Psyche asteroid, please visit [here](#).

NASA-RAMA Project and HELIOTORR Project

For details on the NASA-RAMA project and the HELIOTORR project, refer to:

- [NASA-RAMA Project](#)
- [NDTV Article on NASA-RAMA](#)

Preliminary Comment

Space adventure for asteroid mining and refining is not an "easy money" concept. Mining and refining in our Solar System (planets and moons) are feasible under severe conditions. It is essential to consolidate assets and hold powerful patents at the international level or legal licenses to do the job.

The SPACE ACT signed by former President in 2015 reveals that American corporations were fully authorized to exploit resources in our Solar System, mainly on the Moon. Counterfeiters generating wealth by mining and refining the Solar System may face patent owners and pay legal royalties or penalties, even if the exploitation occurs outside the USA but part of the ROI is done through financial organizations in the USA with the help of international holdings. The situation is legally complicated, and patent lawyers will have significant work with rich metals, PMGs, strategic metals, rare earth elements, and 3He4 isotope projects or those involved in nuclear fusion.

Nuclear fusion will be an exciting tool for the future of spaceship propulsion for significant reasons. All these considerations are theoretical, but in a couple of years, this might happen. Many corporations have decided to open their marketing with financial partners for seed funds because many people, especially financiers, think asteroid hunting is easy money, mainly at Psyche.

Business Plan and Legal Considerations

A realistic business plan must be considered. The law in this matter is quite simple: if you get seed funds to begin the job, you must finish it. Therefore, having serious assets, patents, and know-how for extraterrestrial mining and refining, which must be valued at billions or trillions of dollars, is crucial. Only government institutions or big corporations can invest in this adventure, including NASA, JPL, Pentagon, DoD, DoE, DARPA, IARPA, Lockheed Martin, SpaceX, ULA, ESA, Northrop Grumman Space, and JAXA.

Technical Challenges

In the case of Psyche, another technical challenge might be building a refinery on the asteroid or an orbital station near Psyche. The cost will be considerable but feasible. Our project, HELIOTORR, aims to do the job in place or at orbital altitude.

Another serious matter is the space carrier propulsion. The RAMA project, proposed by JPL-NASA, is an interesting spinoff. We must consider the payload of several hundred tons, taking off from asteroid Psyche and landing on Earth without crashing. SpaceX's spaceship carrier might organize this challenge to land without a crash.

Financial Needs and Contamination Concerns

The financial needs for extraterrestrial mining and refining are evaluated at several billions of dollars, including missions near the asteroid Psyche. Contamination of deep space is a concern. Our PERT patent will generate atomic species (nano-, pico-, femto-size) to be introduced in our mass-spectrometry section. We must recover the unused species in adapted spheres. The goal is also to utilize these atomic vapors for fuels involved in plasma propulsion. One can confirm that the PERT project applied to Psyche will be feasible only with artificial intelligence (AI) and robotics.

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****July 2024****