



**GLYCAN SPACE XR**  
**HELIOTORR™**

<https://www.glycanspacexr-agency.com/>

[www.space-debris-remediation.com/](http://www.space-debris-remediation.com/)

SPACE DEBRIS CATASTROPHE - Dr KESSLER SYNDROME ( NASA)

# IMPORTANT NOTICE

## **SDR Space Debris Remediation 2016-2020**

We assume known to colleagues the technical and scientific bases of this presentation.

### **The short-term problem**

The risk of direct or collateral collision has become concrete and considerably worrying if we consider the work of Dr. Kessler (NASA) as relevant and logical.

These works are recognized in the scientific and aerospace community.

The cloud of active and inactive satellites has become considerable, we can speak of entropy whose progression is geometric due to the current digital state of the number of satellites (the number of military satellites is unknown).

The nuclear sources of onboard energy is difficult to assess as well as the nature of possible weapons.

Fortunately, this explosive situation is compensated by Lockheed Martin's SPACE FENCE 2018 system on the ground, whose mission is to detect objects that may collide with the cloud of existing active or inactive satellites.

In addition, satellite launch programs are around 42,000 over several years, according to Launchers programs micro or mini satellites and will be positioned 550 -700 km LEO technically and commercially this decision is appropriate, but in terms of future risk, do not take in consideration the menace Space Debris Situation, only revenues are considered.

According to our position it would seem more logical and prudent to reduce the KESSLER risk even if the ROI( Return On Investment)is lower for launchers, but more honorable for safety..

Indeed the most urgent mission is to build scientific and technical tools allowing.

Identify, capture and permanently destroy dangerous or unnecessary satellites included in the cloud on site.

Refueling or on-site repair missions are unlikely due to our navigation technologies and, moreover, DE-orbiting in order to return the satellites to the Earth's atmosphere so that they burn up is not a secure solution and can be polluting due to military satellites with an on-board nuclear source., also how much will cost by kg of satellite the deorbiting manoeuvre ? .

For the moment, there is no technology on the spot allowing the elimination of problematic satellites.

The capture and / or DEORBITING will not resolve the risk and could even create other risks if operations fail.

Because the logical remark is as following when the debris or satellite is capture what is the next secure operation is engaged?

NASA JPL has developed a method of capturing satellites and debris that seems satisfactory (Gecko grippers).

All DE-orbiting capture methods and missions are honorable but do not solve the problem existing to date and even less the risk of collision which would be catastrophic leading for at least 10 years of severe economic losses and a critical situation in terms of national security and National Agencies.

In order to avoid these catastrophic scenarios we have developed a Proof Of Concept POC which will prevent and deal with this problem, this is the TERMINATORR TM2006-2017Patents project.

It seems smarter to us to consider bringing together the efforts and skills of all the players in the field of satellite engineering in order to build suchTERMINATORR machines (10 mx 3 m) and start the cleaning work in space. which would allow to maintain a commercial rhythm of launching satellites without risks.

In conclusion first Clean and then safely resume the launch programs, the scientific and technical and commercial and financial community has an immediate capacity to carry out this task force deployed to resolve this difficulty and threat.

### **General considerations on the geometry and functions of TERMINATORR in the solar system**

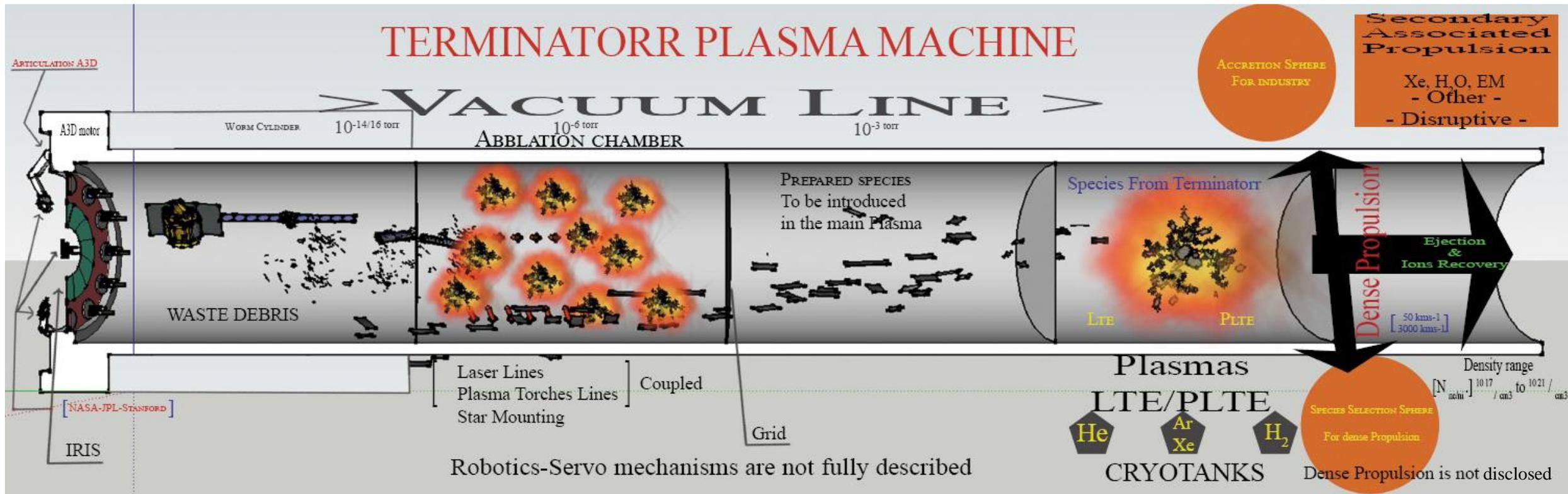
TERMINATORR could be considered both as a mini mobile space station and at the same time as a pursuit spacecraft to locate dangerous objects in LEO-NEO-(GTO) and deep space orbits( others planets and moons) and satellites around these objects.

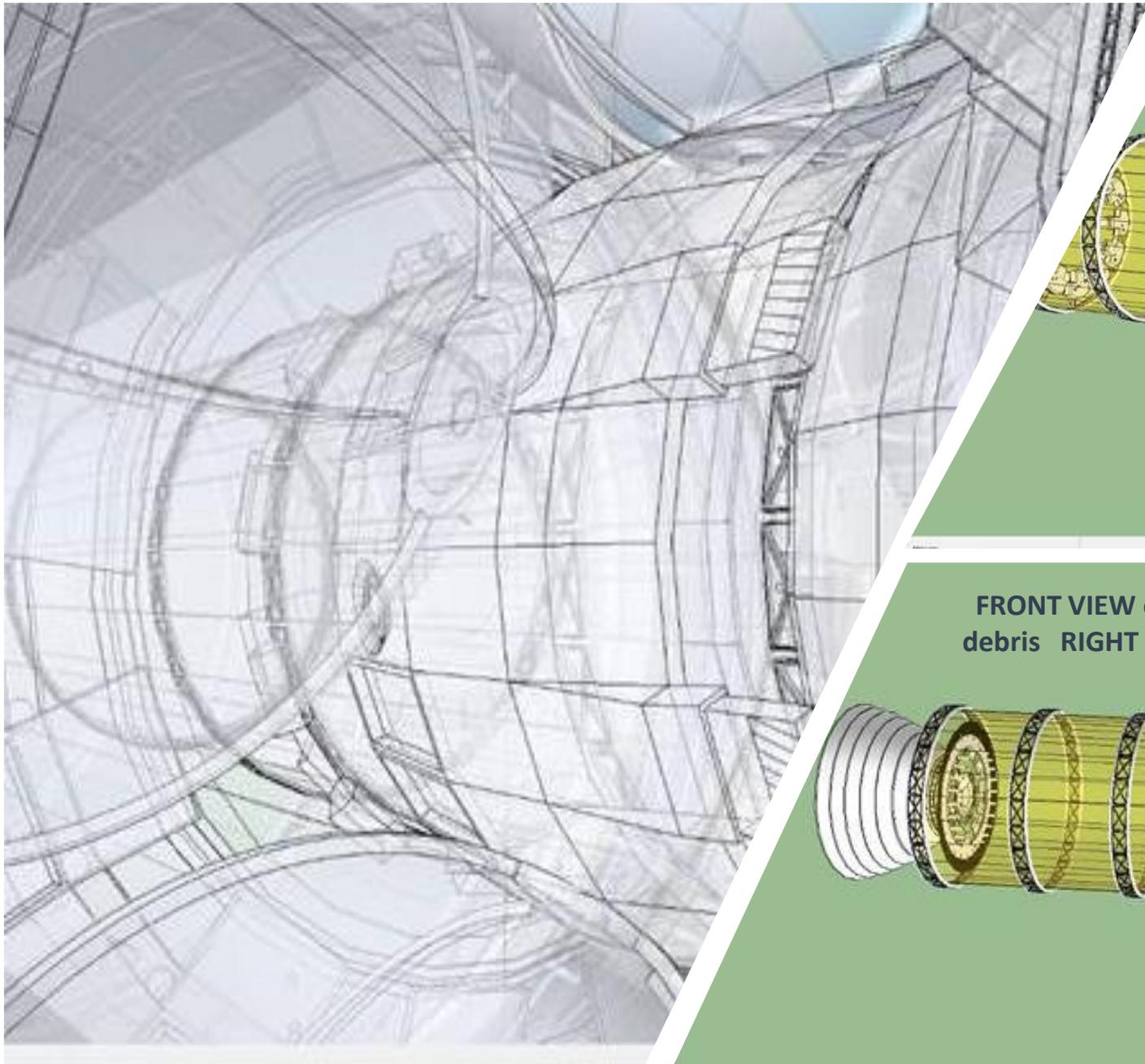
TERMINATORR can be used on MARS-MOON planets and other moons to prevent risks, but also treat mineral and organic pollution that human or robotic activities will create on different objects in the solar system and beyond.

TERMINATORR will have different dimensions depending on the local missions and conditions on the stars or moons or outside celestial objects.

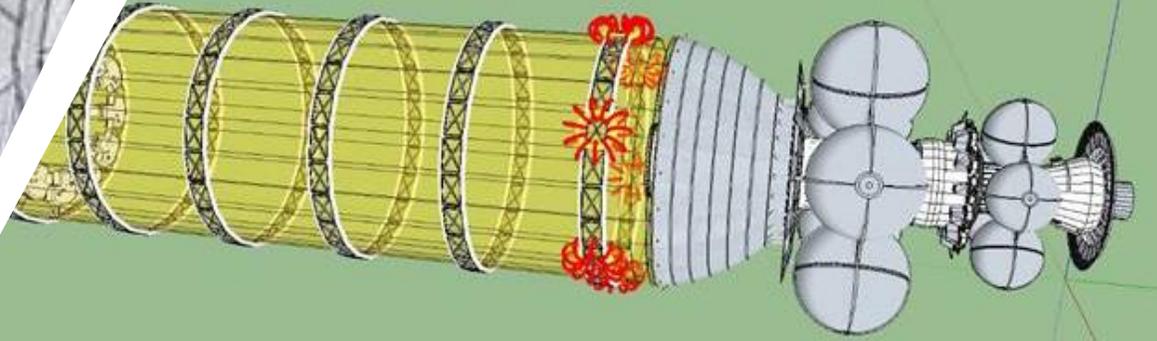
We can consider TERMINATORR for its most urgent mission (SPACE DEBRIS REMEDIATION), as a space module which will have to be assembled in space by international teams most competent in ROBOTICS, this space module will not be manned, but will be able to benefit from aid and local expertise from the ISS STATION which, despite its expiry date set for 2026, can serve as a rear base to complete if necessary UNMANNED missions including repairs requiring human expertise is essential even if Artificial Intelligence (AI) has made considerable progress.

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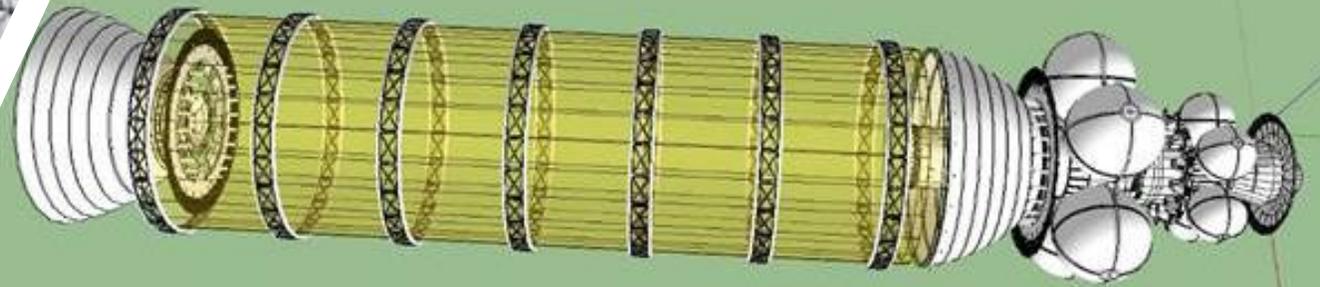


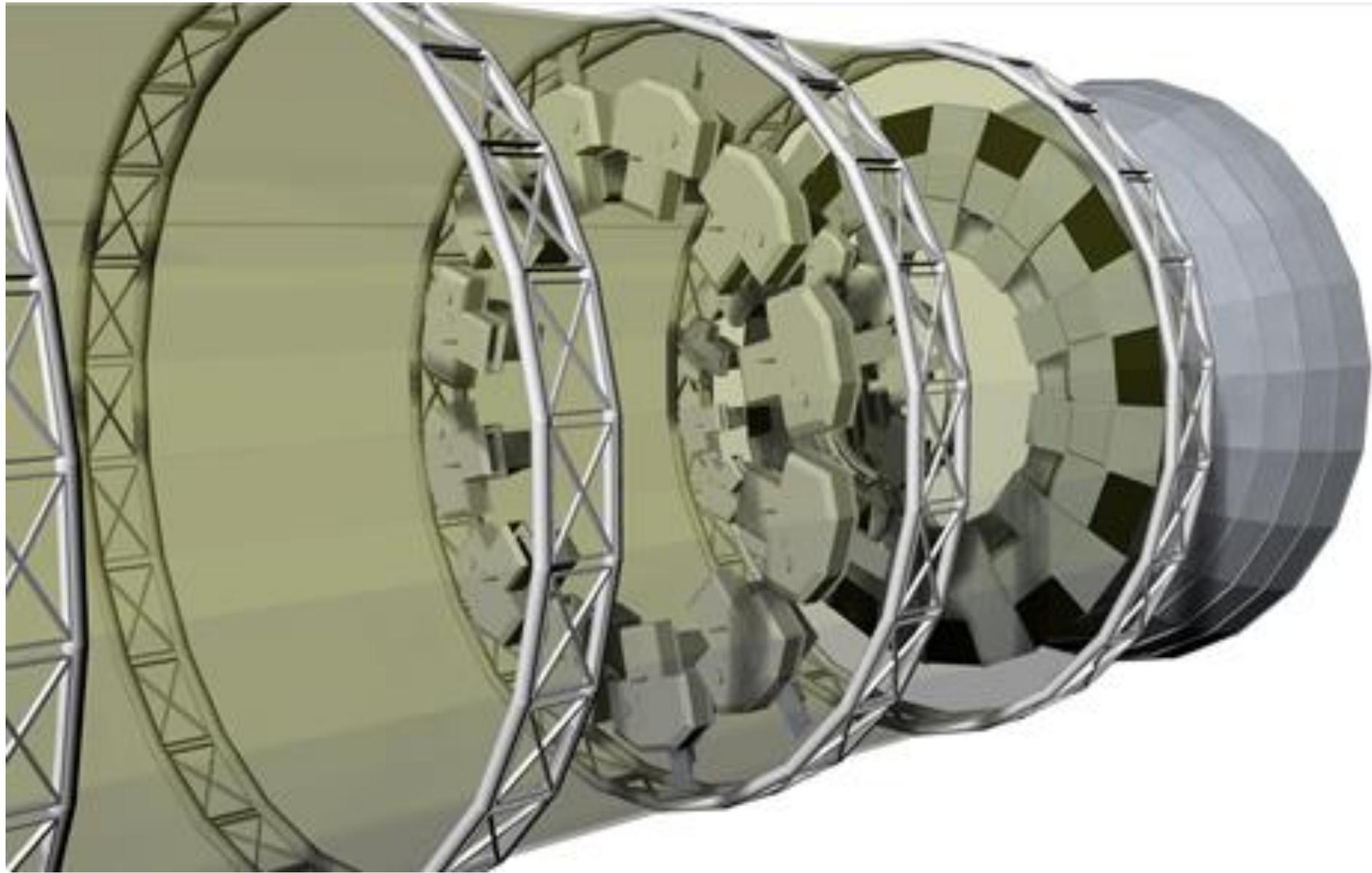


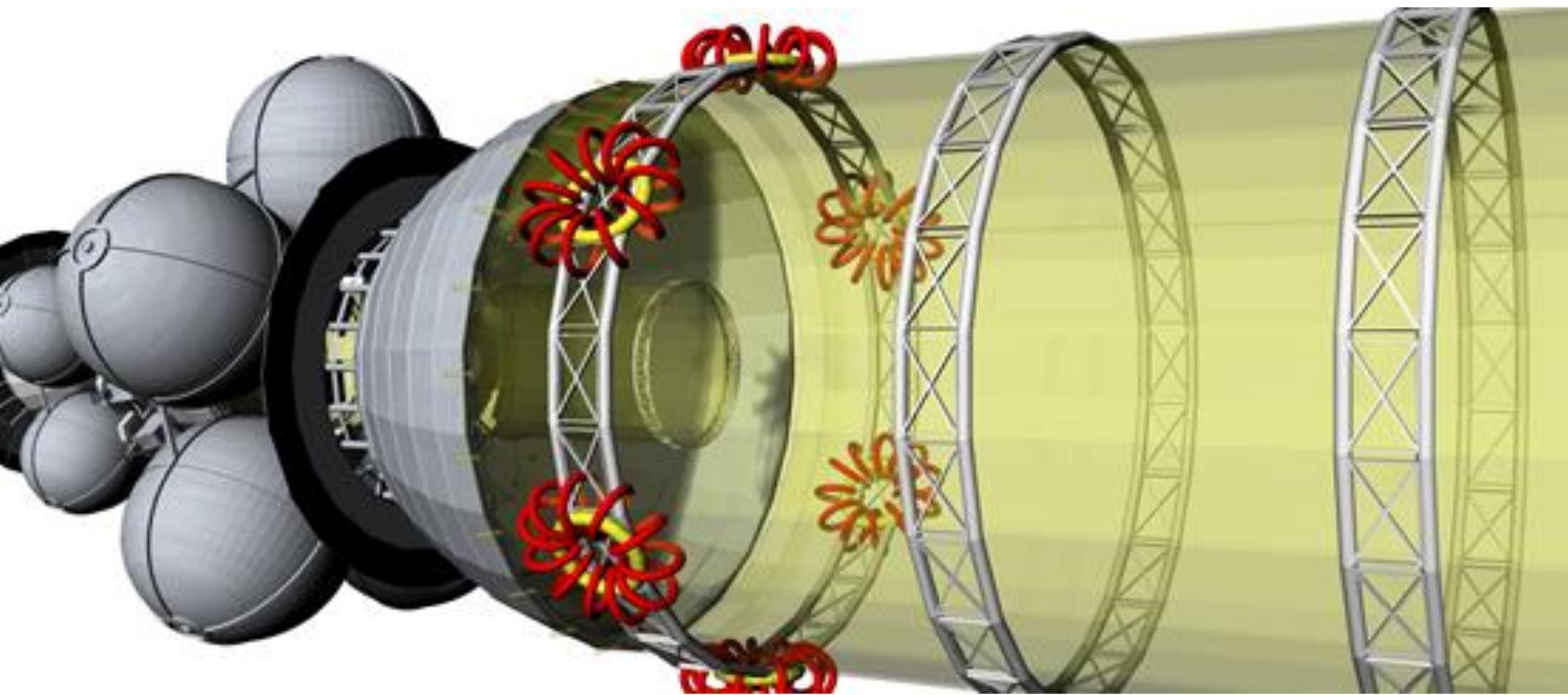
ON THE RIGHT SIDE ARE TERMINATION OF DEBRIS(red )

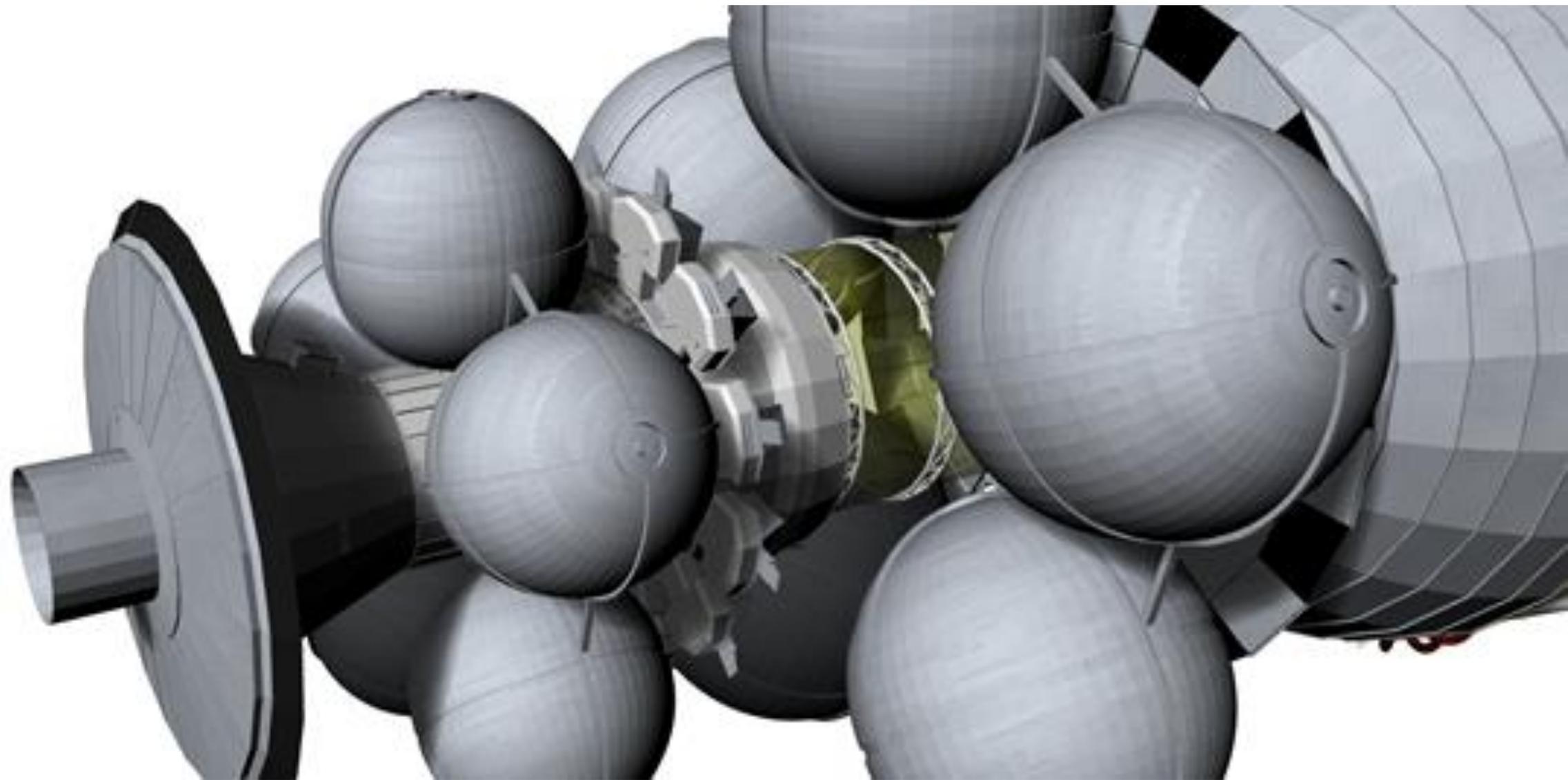


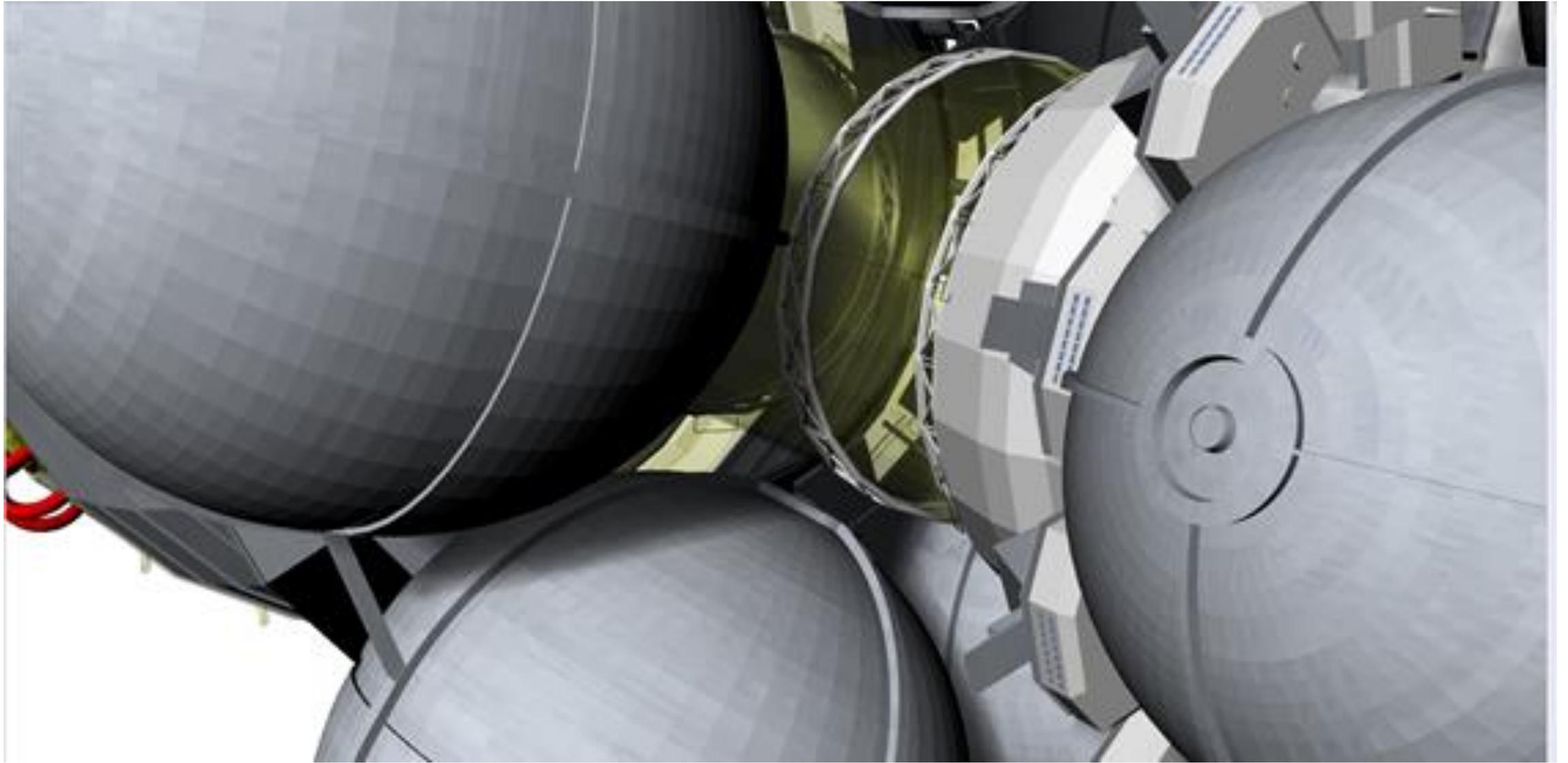
FRONT VIEW on the left ENTRY OF THE DEBRIS- HUNTING and CAPTURE of the debris RIGHT VIEW TERMINATION OF THE DEBRIS -FUELS TANKS-PROPULSION- ACCRETION CHAMBERS-ROBOTICS unmanned

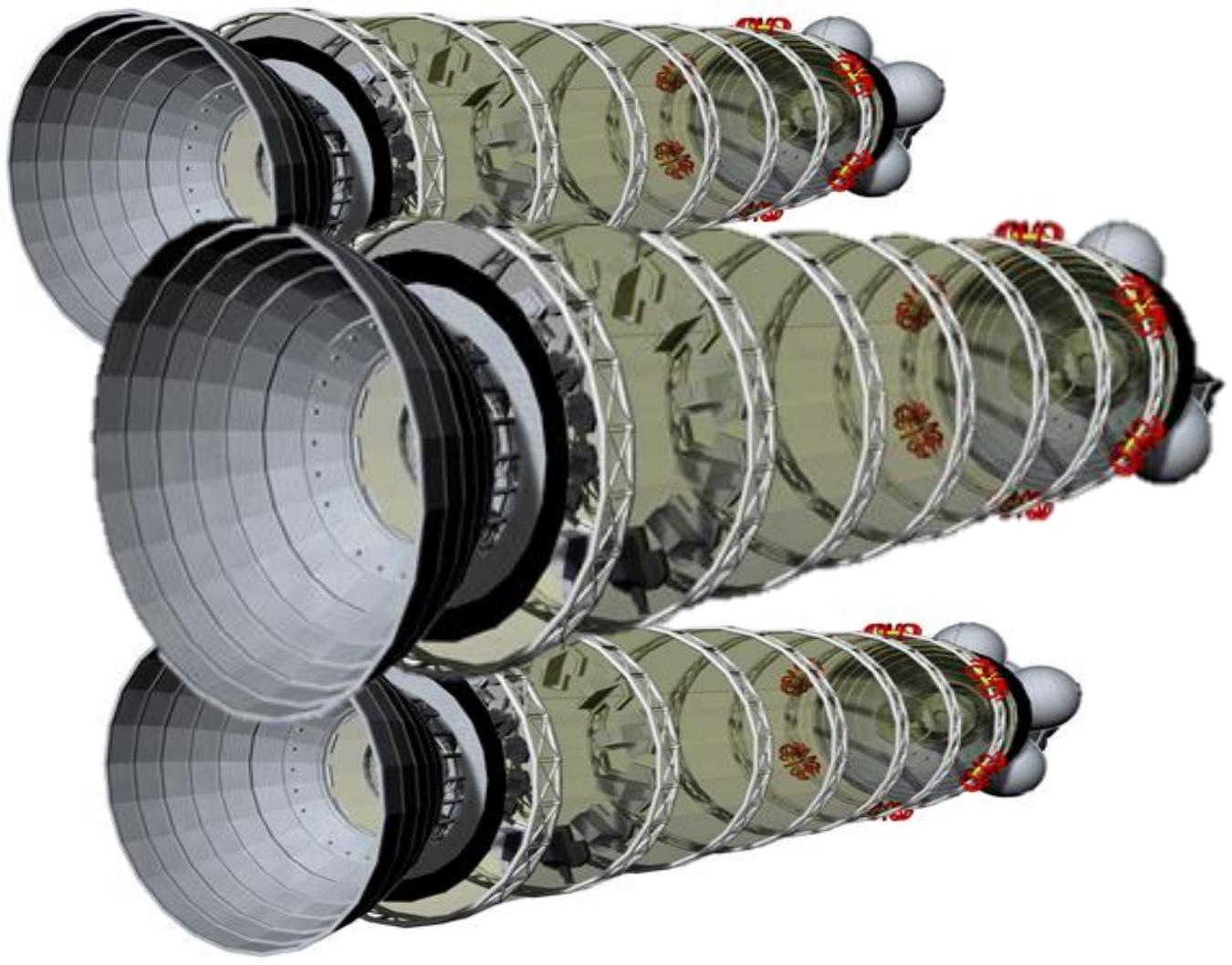




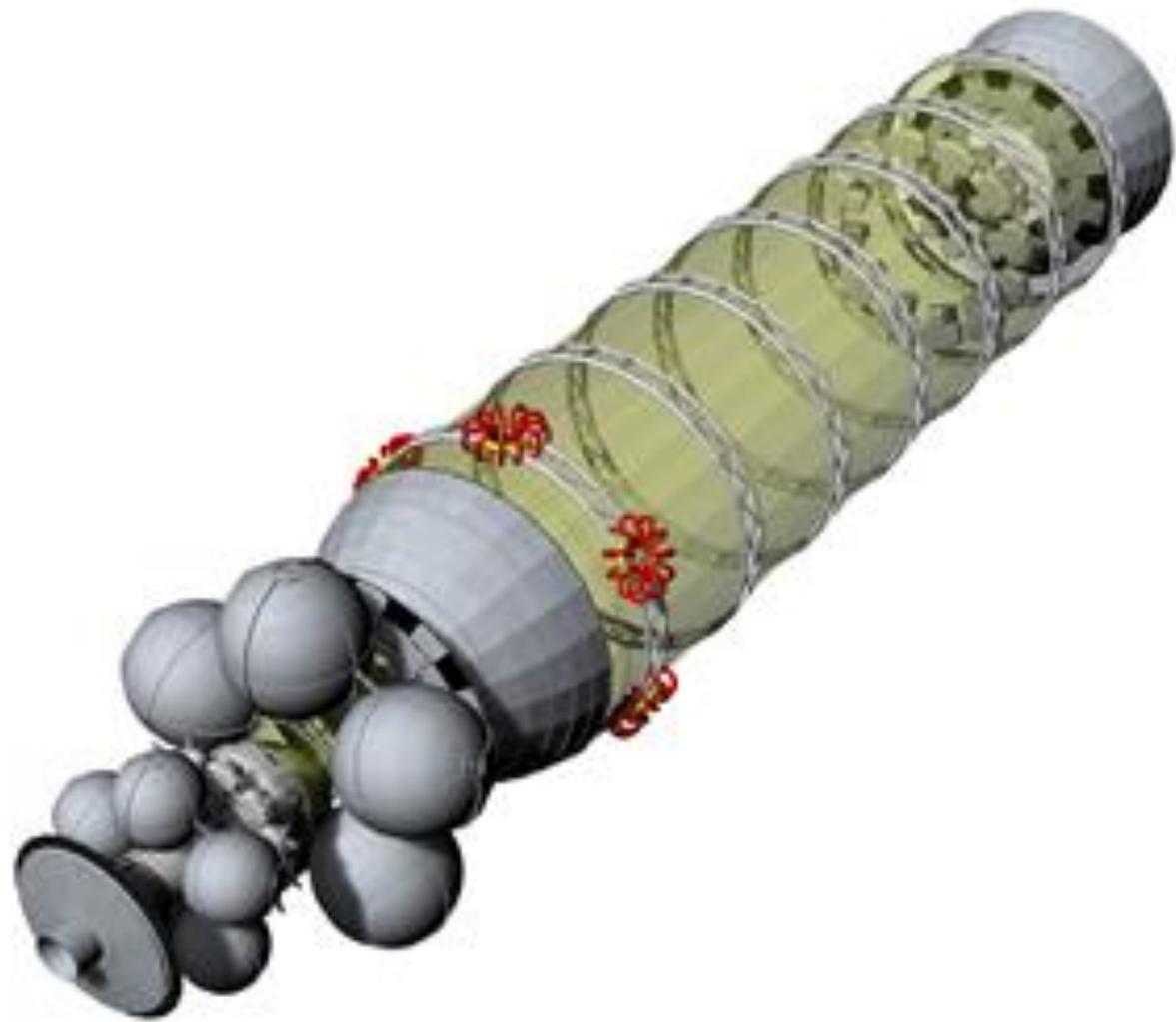


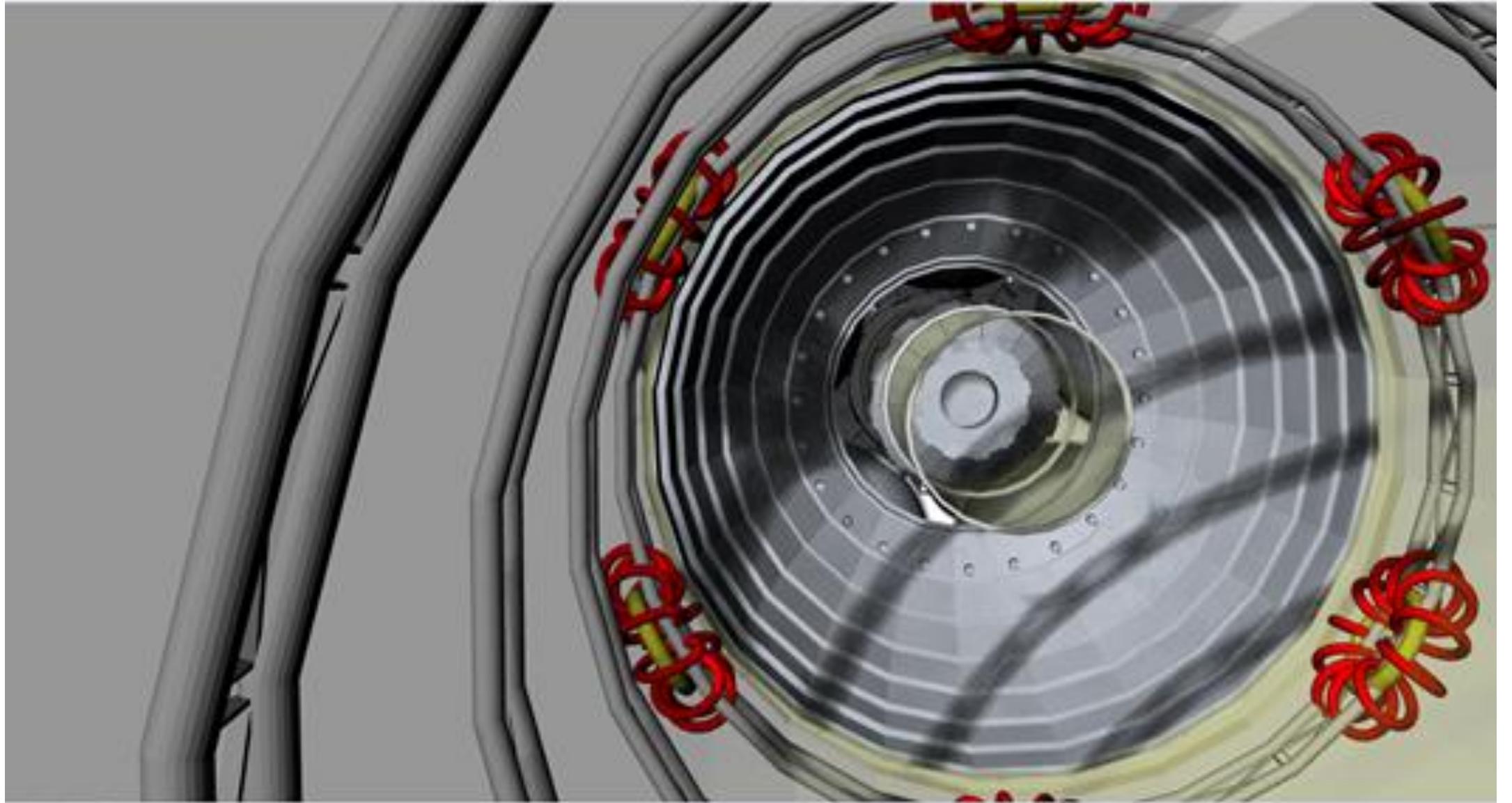


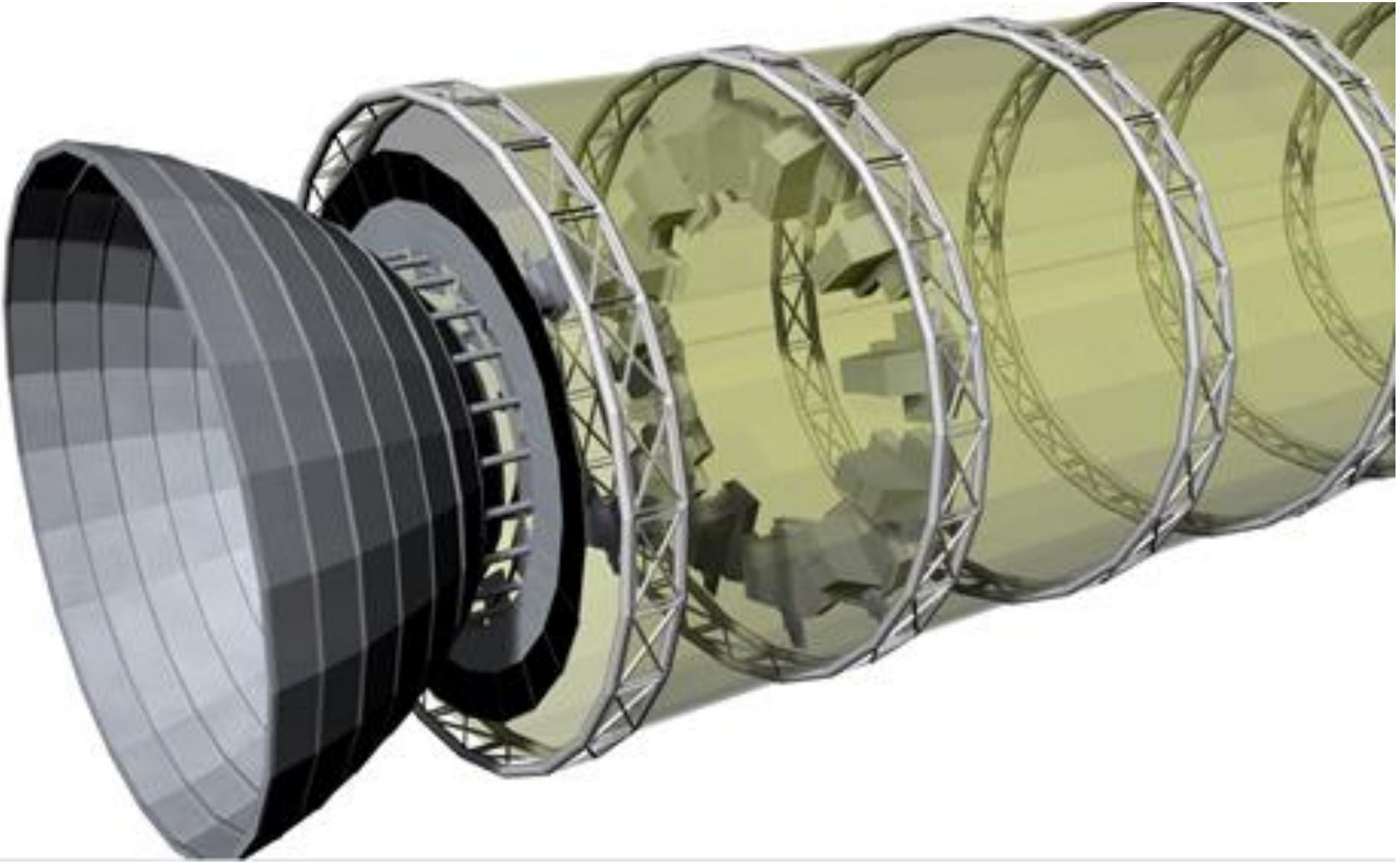














# SPACE DEBRIS REMEDIATION- SPACE DEBRIS REMOVAL

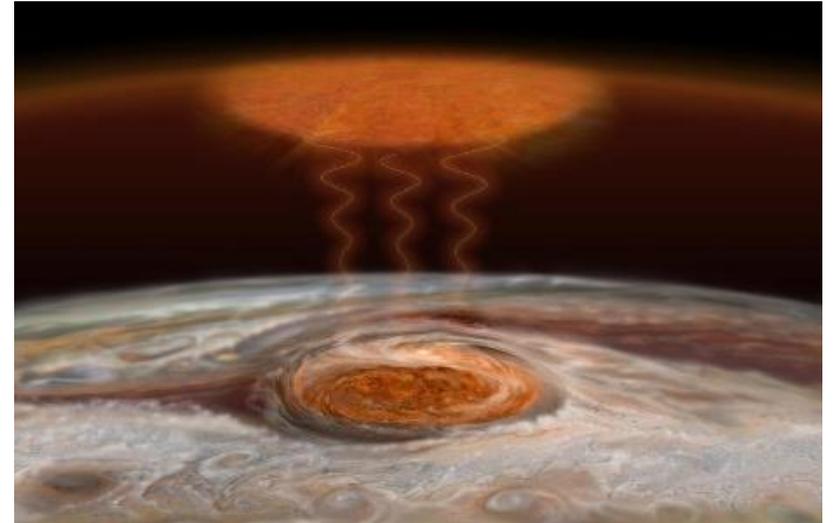
## HUNTING SPACE DEBRIS SPACE FENCE STRATEGY

- TERMINATORR™<sup>2006</sup> project
- USPTO patent application /PCT -China-Japan-Russia-India-Israel- Europe
- Luxembourg patent granted
  
- [LU20170100780 20170908](#)
- [US201662385858P 20160909](#) ; [US201715698847 20170908](#)
- [CN109952618 \(A\)](#) [EP3513410 \(A1\)](#) [US2018073361 \(A1\)](#) [WO2018049153 \(A1\)](#)



# [ Explorer-Analyzorr-Extractorr-Refiners ]™

RADAR-NMR-XRF-ICP-MS-AES-PERT-MHD-MGD



<https://www.GlycanSpaceXR-Agency.com/>

[https://www.google.fr/search?biw=1777&bih=960&sxsrf=ACYBGNQ9SKg7atKotejUbCIJkNRoNMBGZA%3A1579861459325&ei=08UqXrPAE6iblwT2yI7ACQ&q=glycan+space+xr+&oq=glycan+space+xr+&gs\\_l=psy-ab.3..35i39j0i22i30.6145.7087..8195...1.0..0.74.485.7.....0....1..gws-wiz.9FDpA8051jo&ved=0ahUKEwjz9c7IgpznAhWozYUKHXakA5g4FBDh1QMICg&uact=5](https://www.google.fr/search?biw=1777&bih=960&sxsrf=ACYBGNQ9SKg7atKotejUbCIJkNRoNMBGZA%3A1579861459325&ei=08UqXrPAE6iblwT2yI7ACQ&q=glycan+space+xr+&oq=glycan+space+xr+&gs_l=psy-ab.3..35i39j0i22i30.6145.7087..8195...1.0..0.74.485.7.....0....1..gws-wiz.9FDpA8051jo&ved=0ahUKEwjz9c7IgpznAhWozYUKHXakA5g4FBDh1QMICg&uact=5)

[www.space-debris-remediation.com/](http://www.space-debris-remediation.com/)

[https://www.google.com/search?client=firefox-b-d&biw=1422&bih=768&sxsrf=ACYBGNQKaXcjhjvLjKuydOFeKudIrogMQ%3A1579862328386&ei=OMkqXpGcF8ualwSD75a4Aw&q=%22terminatorr%22+space+debris&oq=%22terminatorr%22+space+debris&gs\\_l=psy-ab.3...11779.14968..16003...1.0..0.76.920.14.....0....1..gws-wiz.....35i305i39j0i10j0i13j0i22i30j0i22i10i30j0i8i13i30j33i160.CtePlagYQtM&ved=0ahUKEwiRmILnhZznAhVLzYUKHYO3BTcQ4dUDCAo&uact=5](https://www.google.com/search?client=firefox-b-d&biw=1422&bih=768&sxsrf=ACYBGNQKaXcjhjvLjKuydOFeKudIrogMQ%3A1579862328386&ei=OMkqXpGcF8ualwSD75a4Aw&q=%22terminatorr%22+space+debris&oq=%22terminatorr%22+space+debris&gs_l=psy-ab.3...11779.14968..16003...1.0..0.76.920.14.....0....1..gws-wiz.....35i305i39j0i10j0i13j0i22i30j0i22i10i30j0i8i13i30j33i160.CtePlagYQtM&ved=0ahUKEwiRmILnhZznAhVLzYUKHYO3BTcQ4dUDCAo&uact=5)

## WHITE PAGES

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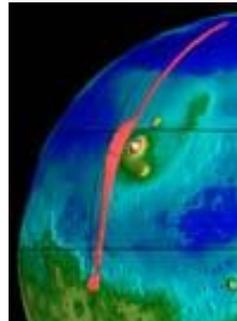
## TASK FORCE COMMITTEE

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## EVENT Glycan Space XR -PARTICIPATION

P.S.W Paris Space Week

28 th -29 th MARCH 2018



**EVENT USA Pasadena CA**  
**SPACE TECH EXPO**  
**GlycanSpaceXR- PARTICIPATING**  
**MAY 22-24, 2018**

**EVENT BREMEN -GERMANY**  
**Pending**  
**Lecture**  
**69th International Astronautical Congress October 2018**

**IAA Symposium on Space Debris A6(IAF)**  
<https://1drv.ms/b/s!ArFTI-zU4KFNhI0ReHPmnYtZufZF>



<https://www.dropbox.com/s/6sc92kuawozr0wy/Capture%20d%27%C3%A9cran%202018-06-08%2016.39.06.png?dl=0>

29.01.2020	
Status	Active trademark
Trademark no.	684522
Filing date	07.08.2015
Expiry date	07.08.2025
Source of first publication	Swissreg on 25.02.2016
Application no.	58949/2015

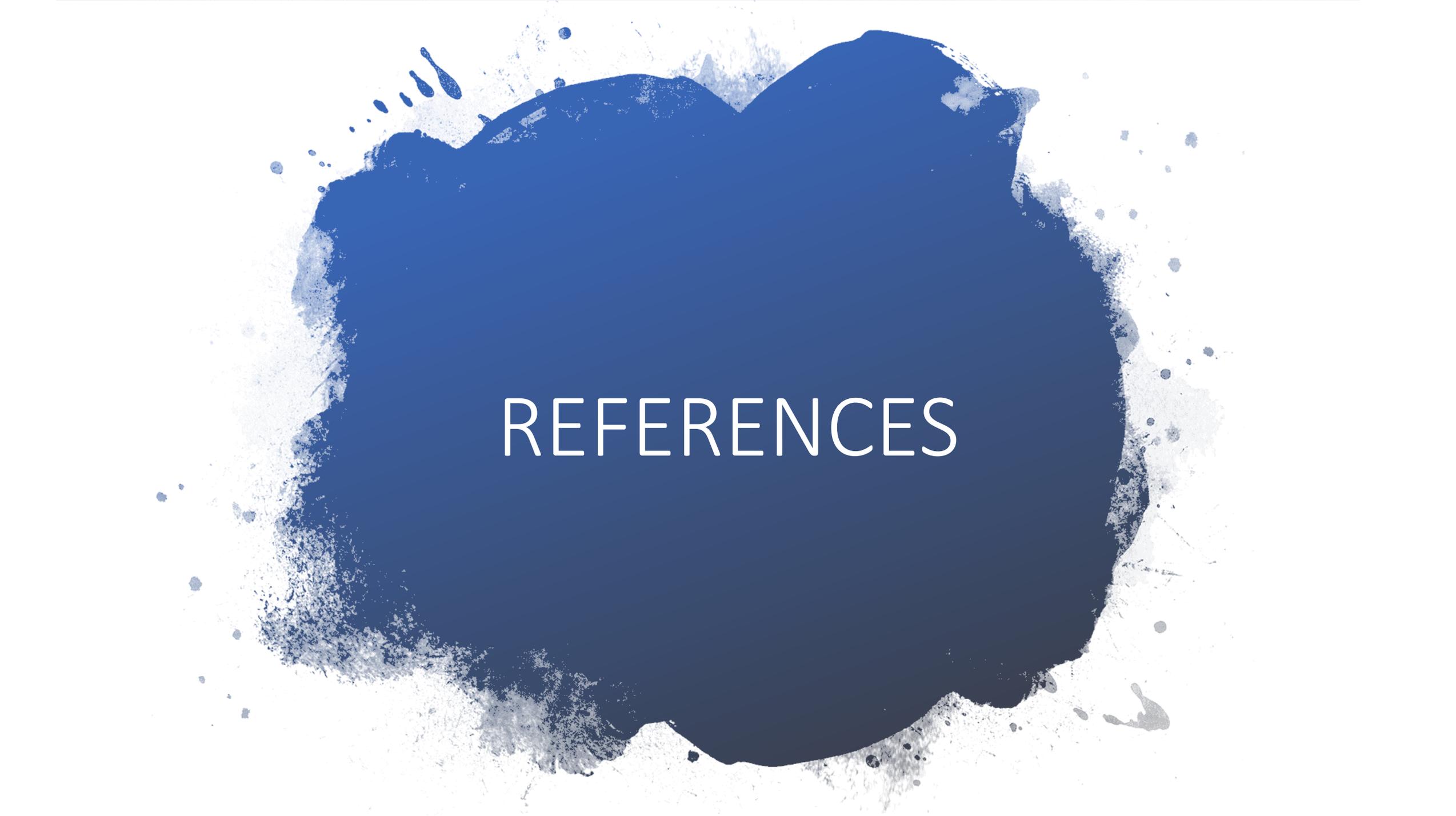
[Trademark image \(601 KB\)](#)



Owner	Glycan Industries Ltd UK 10 St Mary's Gate VELOCITY TOWER S1 4LR Sheffield GB-United Kingdom
Representative	Christian Daniel Assoun 32 route de Malagnou 1208 Genève
Goods and services	<p><b>1</b> Produits chimiques destinés à l'industrie et principalement aux activités industrielles extraterrestres sur les objets et corps célestes tels que astéroïdes, planètes, et leurs satellites; Produits chimiques simples ou complexes comprenant métaux et métalloïdes d'éléments naturels ou artificiels (actinides) y compris de la série des lanthanides ou terres rares; Corps fissiles pour l'énergie nucléaire, Actinium (Ac), Tritium (T), Argon (Ar), Astate (At); Catalyseurs chimiques, eau lourde (D2O), eau légère (H2O), eau tritiée (T2O); Alcalis, Chlorures, sels (produits chimiques), Silicium, acides d'origines minérales ou organiques, graphite et carbone; Curium (Cm), éléments radioactifs à usage scientifique, Hélium (He) 3 et 4, Radon (Rn), Radium (Ra) à usage scientifique, Xenon (Xe).</p> <p><b>6</b> Métaux communs et leurs alliages, minerais, produits métalliques non compris dans d'autres classes; Germanium (Ge), Indium (In).</p> <p><b>7</b> Moteurs (à l'exception des moteurs pour véhicules terrestres) utilisés en milieux extraterrestres; Moteurs et générateurs à Plasmas de type MHD (Magnéto Hydro Dynamique) et MGD (Magneto Gaz Dynamique) avec ou sans électrodes et sous influence d'inductions RF (Radio Fréquentielles).</p> <p><b>14</b> Diamants.</p> <p><b>37</b> Extraction minière en milieu extraterrestre et en particulier de métaux de la série des métaux précieux et assimilés tels que Or (Au), Argent (Ag), Ruthénium (Ru), Osmium (Os), Palladium (Pd), Iridium (Ir), Platine (Pt), Rhodium (Rh).</p> <p><b>39</b> Distribution d'énergie dans le milieu extraterrestre, distribution des eaux dans le milieu extraterrestre, distribution d'électricité dans le milieu extraterrestre.</p> <p><b>42</b> Services scientifiques et technologiques de recherches et de conceptions; Services d'analyses et de recherches industrielles dans le milieu extraterrestre; Recherches géologiques en milieu extraterrestre; Recherches biologiques en milieu extraterrestre; Recherche en mécanique en milieu extraterrestre.</p>
Nice classification no.	1, 6 - 7, 14, 37, 39, 42
Color claim	Rose, jaune, vert, gris acier.
Trademark register entry date	25.02.2016
Opposition status	No opposition filed
Date of technical update	25.02.2016

**Designation**

Extract date	05.02.2020
Status	Active trademark
Trademark no.	P-561249
Filing date	20.07.2007
Expiry date	20.07.2027
Source of first publication	SOGC no. 170 to 04.09.2007
Application no.	60080/2006
Trademark	<a href="#">Trademark image (111 KB)</a> 
Owner	GLYCAN INDUSTRIES Corp Ltd Suite 1 10 St Mary's Gate Sheffield S1 4LR GB-United Kingdom
Goods and services	<b>9</b> Appareils et instruments scientifiques, appareils pour le réglage ou la commande du courant électrique. <b>40</b> Traitement de matériaux.
Nice classification no.	9, 40
Trademark register entry date	17.08.2007
Opposition status	No opposition filed
Date of technical update	20.10.2017



# REFERENCES

# PROMINENT EXPERTISE

**NASA Orbital Debris Program Office Overview J.-C. Liou, PhD NASA Orbital Debris Program Office The ReDSHIFT Final Conference Florence, Italy, 13-14 March 2019**

<https://1drv.ms/b/s!ArFTI-zU4KFNGsNYQ176U4F9TyN6bg?e=7TTt3J>

Notice : for the downloads it could takes a while. Sorry for the inconvenience.