Kryon

WIP: This article is a work in progress and is not yet approved for usage in the RP.

♫ Undertale - "The Choice"

A means of protecting a planet from harmful solar winds and radiation (similar to ozone), Kryon is a programmable gas which acts as a massive farraday cage - turning this dangerous emission into useful electrisity for the occupants of the planet below - ideal when terraforming. With each microscopic grain also being a tiny networked computer, other potential uses are also available.

It entered use in YE37 but has a development history stretching back as far as YE29 and was created by the Lazarus Consortium for use by the LSDF and Lorath Matriarchy.

More Information

Kryon is a programmable femtoscale gas designed to fill the gap in terraforming in the production and maintanance of ionospheres or geodynamos. It is able to sit in an existing atmosphere absorbing, deflecting, generating and focusing a multitude of electromagnetic and electrostatic waves in the atmosphere of a planetoid – typically absorbing and deflecting harmful wavelengths of radiation such as a solar-wind – essentially giving a planet an ozone layer.

Kryon specifically is a copyright technology, commissioned especially by the Lorath Matriarchy who funded its research and design. Like all protected technologies, it is implanted with a shutdown code which renders Kryon inert. It is not available for public purchase.

Important is that this charge can be reprocessed then shared with ground-stations, providing electrisity to occupants of the planet below. Kryon can safely be aspirated by an organic body and is non-toxic.

Kryon is produced in massive atmospheric processing stations which use either the ambient atmosphere or content of rock to produce an ideal atmosphere on a planetoid and considered a vital component of terraforming.

Production

Kryon is a form of structol, a self-replicating programmable metal. Quite importantly, kryon cannot self-replicate with great success (and is only able to just above maintain its own numbers). As such, dedicated kryon production facilities are required. These usually work by extracting carbon from the air and other materials from the ground or by bringing material reserves in advance as kryon does not store well enough for transportation (meaning stealing or reverse engineering it is quite difficult unless done so on a world where it is active).

These facilities are usually fifty meters cubed in size and range up to kilometers in size underground. While not always permanent fixtures, they do need to be stationary in order to work.

Kryon installation within a planet can take anywhere from 2 weeks for minimal potential to form (ideal for powering equiment) or a year for maximum potential (ideal for more advanced electrical fields).

Mechanism

Kryon works by creating immense opposing charges in tall columns, replicating work that would ordinarily require massive equipment to perform. Often, Kryon spends hours, weeks or months burrowing into the ground, going as deep to the core of a planet as possible in order to achieve optimal charge exchange with a solid form while with a gas form reaching out for the highest parts of the atmosphere. In this way, charge from both spaces can be interfaced with a circuit of gas acting as the path of least resistance similar to lightning. Often, higher negative potentials are formed through the use of friction, altering the wind patterns of the planet, rubbing kryon together to create negative potential.

Kryon works in three ways:

Geomagnetor

Working similarly to geothermal power applications discovered by the Lorath during their long stint underground, the Geomagnetor is one profile Kryon can assume. In doing so, it burrows into the ground until it discovers a low pressure magma front then shifts to cap it, manufacturing its own superconducting ceramics. From there, the geomagnetor is a path of least resistance for all geomagnetic force which is then returned to the surface, acting as part of a planetary-scale Host Circuit for the dynamo of subterranian movement of metals in the planet's surface.

The geomagnetor usually takes around three to six months to form and doubles as a storage battery. Peaks of the geo-magnetor are often covered in large metal deposits in tall columns along mountains often resembling forests which form naturally as a side-effect of the high electrical charge. They are often composed of refined metal, towards their core.

Ionomagnetor

A new principle, the ionomagnetor creates false thunder fronts using static electrical buildup on the femtoscale to create massive negative electrical potentials at varying altitudes. The specific wavelength and amplitude of the ionomagnetor is especially designed to capture the stellardynamo properties of the planet: Those of it rotating in relation to the magnetic field of its host star. In this way, the ionomagnetor becomes another component of the HOST CIRCUIT.

Host Circuit

Sitting in a planet's atmosphere at varying levels, the host circuit is a control system acting as a planetary scale electrical circuit, dividing the surface into realms and sectors. In doing so, the conventional electrical properties of an atmosphere can be changed with great efficiency, to the effect of

altering weather patterns, removing or enhancing atmospheric protections and specialty modification of the magnetosphere of the planet.

These changes include the production of large non-tactile non-solid volumetric forms, shifting of optical properties, energy storage as capacitor banks and most properties common of a military grade field inducer (such as the production of defensive screens and EMP).

Potential secondary uses of Kryon

In addition to providing ozone protection, Kryon can be networked neurally and commanded to conduct lots of useful secondary functions - detecting and releasing energy, in transmissions and even as a vast communications network, boosting transmissions which flow through it.

Quite importantly, Kryon is able to form the plasma wake at almost any point within the host circuit or ionomagnetor. A plasma wake is able to act as an antennae for electromagnetic fields, boosting those upon a planet produced either by surface stations or by kryon directly.

Other properties include:

- **Computation:** The kryon itself and the magnetosphere can be used as a computational system, able to work with a combined network of terminals to produce an impressive computational yield.
- **Radiance:** Kryon is able to form non-tactile non-solid volumetric objects, lights and optical lensing effects.
- **Sensor:** Kryon is able to listen to changes in its volumetric projections, acting as a mapping system. It is also able to detect changes in air flow (for example, created by a ship) and share this information with ground forces.
- **Transmission:** Kryon is able to form a disembodied “internet” which completely connects a planet's communication systems to any device provided a basic antennae is available.
- **Jamming:** Used properly, kryon can interfere with equipment with a high enough electrical potential charge. It is able to either syphon high voltage away from capacitors or flood them with input charge, frying them as an EMP. Importantly, its effectiveness is directly related to the amount of electrical potential stored inside energy regulation systems when the jamming wave strikes, empty storage is unaffected. The damage rendered is also relative to the maximum available damage, disabling equipment and systems within said platform:
  - *PROBLEMATIC* with personal scale equipment (low reliability) [NO DAMAGE]
  - *DAMAGING* with armour-scale equipment (rapid overheating) [POTENTIAL Tier 1, Light Anti-Personnel DAMAGE TO WEARER]
  - *DANGEROUS* with mech-scale equipment (melting) [DR3 DAMAGE TO AREAS CONTAINING CAPACITORS]
  - *CRIPPLING* to starship grade equipment (disabling, burnouts, explosions) [Tier 9, Heavy Anti-Mecha DAMAGE TO POWER SYSTEMS]
- **Irradiation:** A military grade application, kryon can be used to electromagnetically assault a given cubic mile of space within an atmosphere, similar to a nuclear explosion. This was originally designed for the purpose of containment of potentially dangerous specimens and is usually not a feature known in Kryon's software memory outside of special applications.
- **Barrier:** Kryon is able to produce advanced level defensive fields about a planet, though it requires

a large number of specialist ground stations in order to do so. As such, it is only possible on a planet with an excellent foothold and an extended presence.