## CLAIMS

 An apparatus for generating Leptons and Mesons comprising a modular apparatus (10) with a dynamic gimbal (1) with dynamic gimbal surface (8) moving as a result of functionally controlled imposed movements or perpendicular to the resulting force between the gravitational force and the normal force acting on the apparatus, allowing multiple field source devices (46) mounted on top and bottom of the modular apparatus (10) to convert hydrogen/deuterium/tritium into Leptons and Mesons, whereby Rydberg atoms, dense and ultra-dense hydrogen is formed at catalysts (12) and/or (2) having a material composition to cause the transition of hydrogen to an Rydberg state, ultra-dense state and transferring such Rydberg atoms and ultra-dense hydrogen into the upper reaction chamber (4) or lower reaction chamber (5), and whereby field source devices (46) excites Rydberg Matter and ultra-dense hydrogen on the gimbal surface undulation (8) to convert hydrogen/deuterium/tritium into Leptons and Mesons.

- The modular apparatus (10) according to claim 1 whereby such modular apparatus is outfitted with several singular or multiple modular devices (20)(28)(32)(35)(42)(44) (52) attached in any configuration onto the modular apparatus (10) for energy collection, conversions and or storage.
- The modular apparatus (10) according with claim 1 whereby such dynamic gimbal (1) is moving relative to the modular apparatus (10) inside said modular apparatus (10) maintain position relative to natural gravitational force or being actively operated by a controlled electromagnetic operation of a set of modular apparatus upper magnets (50) and a set of modular apparatus lower magnets (51) acting on a set of dynamic gimbal magnets (49) whereby any desired movements can be generated within the limitation of the seal system(6) and whereby such seal system(6) is sealing off such magnets from the upper reaction chamber(4) and the lower reaction chamber(5).
  - 4. The modular apparatus (10) in accordance with claim 1 with a dynamic gimbal (1) forming and upper reaction chamber (4) and a lower reaction chamber (5) by a dividing seal system (6) sealing off the gaseous flow paths entered to the upper chamber (4) through an upper gas inlet (15) and lower gas inlet (11), whereby both independent gas flow-paths initially enter an outer catalyst (12) that can controllably heated by a heater for outer catalyst (13) for then the flow path to enter an inner catalyst (2) that can be controllably heated by heater inner catalyst (3) that is powered by a set of flexible wires power to heater inner catalyst (17) and that the complete dynamic gimbal(1) may be given a electrically potential through the flexible wires (9).
    - 5. The modular apparatus (10) in accordance with claim 1 having a dynamic gimbal (1) with a flow path through catalyst and exiting the upper chamber (5) and the lower chamber(4) through ejector device (7) shaped and installed for the protecting flow channel from direct pulse created by the field source (46) and directing the flow of the ultra-dense hydrogen toward the sloping gimbal surface undulation (8) with circular groves or indents surface patterns slowing the movements and or avoiding the escape of said ultra-dense formed hydrogen/deuterium/tritium.

6. The modular apparatus (10) in accordance with claim 1 having field source conduits (19) with field source isolation valves (18) allowing the field sources (46) with focusing device (47) and a power supply (48) to be disconnected from the modular apparatus during operation of said device.

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Slettet: <#>An apparatus for generating Leptons and Mesons, comprising a modular apparatus (10) with a dynamic gimbal (1) with dynamic gimbal surface (8) moving relative to the modular apparatus (10) responding to gravitational force in response to external movements of the modular apparatus (10) or a functionally controlled movement, allowing multiple field source devices (46) mounted on top and bottom of the modular apparatus (10) to trigger ultra dense hydrogen on the dynamic gimbal surface (8), or ejection devices (7), whereby dense and ultra-dense hydrogen is formed at catalysts (12) and/or (2) having a material composition to cause transition of hydrogen to an ultra-dense state, transferring ultra-dense hydrogen into the upper reaction chamber (4) or lower reaction chamber (5) that is sealed off from each other by a seal system(6) whereby the upper chamber(4) pressure is controlled by outlet upper chamber(14) and lower reaction chamber(5) pressure is controlled by outlet lower chamber (16) and whereby pulse triggering by field source devices (46) of the ultra-dense hydrogen on the gimbal surface undulation (8) and ejection device (7) to convert hydrogen/deuterium/tritium into Leptons and Mesons

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- 7. The modular apparatus 10 in accordance with claim 2 is outfitted with one or multiple detachable electric power sub-module(20) attached to said modular apparatus and sealed off by a metal or elastomeric sub-module seal (23) and equipped with alloy film barrier (22) typically containing aluminum for converting Leptons and Mesons into Muons, whereby the Muons can travel through one or several stacked coils(24) and (21) for
- converting particles into electric power and whereby the internal pressure condition and type of gas of said electric power sub-module to be balanced in pressure through a pressure outlet (26) entering a pressure compensator unit (25) that is connected to the corresponding relevant outlet of the reaction chamber (14) to allow the pressure to be equal but gasses to be allowed to be different such as a inert gas used in the power sub-
- module to protect the coil materials and or avoid particle gas interaction. The modular apparatus (10) in accordance with claim 2 is outfitted with one or multiple
- detachable gas pressure sub-modules (28) typically charged with Hydrogen /Deuterium/tritium in gas or ultra-dens form with single or multiple chambers attached to the modular apparatus (10) and sealed off by pressure sub module seal (32) and a alloy film(31) typically aluminum for converting the energetic particles to charge Muons and a heat transmitting heat pipe(29) conveying the heat from the particle interaction with hydrogen/deuterium/tritium/tritium.
  - 9 The modular apparatus (10) in accordance with claim 2 is outfitted with one or multiple Photon to electron converter sub-modules (32) that include a converter device (34) and is sealed off by a photon to electron converter sub-module seal (33).
    - 10. The modular apparatus (10) in accordance with claim 2 is outfitted with one or multiple ultra dense hydrogen/deuterium/tritium storage sub-modules (35) for interim or permanent storage of ultra dense formed hydrogen or deuterium, whereby said sub
- 100 hydrogen/deuterium/tritium storage module(35) is sealed off by a storage sub-module seal (36) has an isolation valve (53) on a the pressure conduit (40) normally closed, but opened when ultra dense hydrogen/deuterium/tritium shall be allowed in or out of the storage sub-module by operating storage sub-module outlet valve (39) on the storage sub-module outlet and connecting pressurized or vacuumed through the isolation chamber(41)
  - 11. The modular apparatus (10) in accordance with claim 2 is outfitted with one or multiple PMT sub-modules (42) for monitoring and control of the process, while such PMT submodule is sealed off to the modular apparatus(10) by a PMT sub-module seal (43)
  - 12. The modular apparatus (10) in accordance with claim 2 is outfitted with one or multiple radiation to power sub-modules (42) for converting radiation to electric power through solid state devices while such sub-module is sealed off to the modular apparatus (10) by radiation to power converter module seal.
    - 13. The modular apparatus (52) in accordance with claim 2 is outfitted with one or multiple Muon NDT sub-modules (102) for monitoring and control of internal or external the processes, while such Muon Muon NDT sub-module is seal off to the modular apparatus(10) by a Muon NDT sub-module seal (53)

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## Nomenclature

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## 1. Dynamic gimbal

- 2. Inner catalyst
- 3. Heater inner catalyst
- 4. Upper reaction chamber
- 5. Lower reaction chamber
- 6. Seal system for upper and lower chamber

7. Ejector device

- 8. Dynamic gimbal surface undulation
- 9. Power to dynamic gimbal
- 10. Modular apparatus

11. Lower gas inlet

12. Outer catalyst

13. Heater for outer catalyst

14. Outlet upper reaction chamber

15. Upper gas inlet

16. Outlet lower reaction chamber

17. Power to heater inner catalyst

18. Field source isolation valve

19. Field source conduit

20. Electric Power sub-module

21. Electric coil, left hand

22. Alloy film barrier, typical aluminum

23. Seal electric power sub-module

24. Electric coil, right hand

25. Compensator for inert electric power sub-module gas

26. Pressure outlet electric power sub-module

27. Outlet from gas isolation compensator

28. Gas pressure sub-module

29. Heat pipe for heat transfer

30. Pressure sub-module seal

31. Alloy film, typically aluminum

32. Photon to electron and TOF converter sub-module

33. Photon to electron converter module seal

34. Converter device

35. Ultra dense deuterium/hydrogen storage sub-module

36. Ultra dense deuterium/hydrogen storage sub-module seal

37. Outlet storage sub-module

38. Closer valve for storage sub-module

39. Storage sub-module outlet valve

40. Pressure conduit

41. Isolation chamber

42. PMT sub-module.

43. PMT sub-module seal

44. Radiation to power converter sub-module by silicon

45. Radiation to power converter sub-module seal

46. Field source device, typical lazer47. Focusing device field source device

47. Focusing device neurosource device48. Power supply field focusing device49. Dynamic gimbal magnet50. Modular apparatus upper set of magnets

51. Modular apparatus of lower magnets52. NDT sub-module

53. NDT sub-module seal system

54. NDT film

55. TOF Triggering sensor

56. TOF extension pipe 57. TOF sensor

58. Test power and instrument interface