Muon Catalyzed Fusion: From Prior Art To Future Space Planes by T. W. Ciarlariello 2019 A.D. @ MIT

Muon catalyzed fusion is needed for space planes of upward angular acceleration into orbit since a brute force mentality of vertical flight guzzles fuel. In Russia Andrei Sakharov is credited in 1947 with muon catalyzed fusion soon after Soviet Communists pillaged Jun Shitagau Noguchi's Nitchitsu or Nihon Chisso factories in Eastern Part of North Korea called Hamgyong Province and in the United States a decade later Luis Alvarez is credited with muon catalyzed fusion just after United States military had returned from visiting ruins of Noguchi's Nitchitsu industries. Overwhelming evidence exists how Jun Shitagau Noguchi and his aid Kim Songsu both of Hamgyong Province or Kankyo Province in Japanese during the early 1940s of WWII were working on rocket plane engine of a cryogenic Dewar fuel tank of cryogenic liquefied deuterium connected to a beryllium alloy reaction chamber tubing nozzle coiled in and around a direct current powered electromagnet lense cosmic ray telescope. Such a rocket engine magnetically focused cosmic ray muons or mu mesons while cryogenic fuel prevented wires from Ohmic resistance heating where by alpha particles were removed via beryllium alloys to enrich fuel via neutron flux. However it still requires an aircraft to first gain altitude and gain velocity. Later Soviet Russia had an unpiloted lifting body spacecraft with a retractable cone on top since reentry heat exceeds Curie Point of where it would lose it's magnetism and the United States had many high altitude flights.

Japan at that time did numerous work on electromagnet telescopes for cosmic ray studies along with aerospace industries and deuterium in "Chemical Abstracts". College Park Maryland National Archives have declassified military intelligence files of the Office of Strategic Services for early 1940s Hamhung called Konan in Japanese along with "Technology and Investment" by Barbara Molony cite Hideo Hasagawa's memoir who recalled how Noguchi of Nitchitsu in Hamgyong Province produced deuterium peroxide aviation fuels in factories that extended from Wonsan or Genzan in Japanese into Manchuria called Dong Bei. Before the fall of 1945 deuterium peroxide was often just a residual byproduct of hydroelectrochemical industrial processes. Allied naval blockades meant beryllium alloys and even rare earth metal alloys relatively cheaper than other metals while Allied incendiary devastation along with mountainous terrain and a rocky coastline of tidal forces where jagged rock river water falls dump into oceans meant crude jet rocket powered airships, gliders, or bombers became a final option for industrial transport. "A Glimpse of Old China" by Chen Yong and a vintage periodical called "Sashin Shuho" showed Manchurian aerospace factory machine tools still undecipherable to modern engineers.. Even today eastern part of North Korea does not have modern infrastructure bordering on medieval and relies on electrolyzers for hydrogen gas for coal liquefaction for fuels with a terrain elevation gradient difficult for ground or even river transit. By September of 1945 chemical metallurgy along configuration of how such a rocket engine's internal components were machined was lost forever since Communist regimes thought they could have an industrial economy without engineers and without technicians who they persecuted on charges of being "Japanese Collaborators". Robert K Wilcox's book called "Japan's Secret War" and others have tried to vilify Noguchi of Nitchitsu as a "mad Dr. Strangelove".

Recently Jerome Drexler has a patent very similar to Noguchi's work and according to Springer publishing today Nagamine of Riken institute is also trying to use cosmic rays for muon catalyzed fusion. Cosmic ray muon catalyzed fusion rocket engines would best work near polar regions meaning one would need permission slips from the British Queen of England for Canada, from indigenous tribes of Alaska, from Vladimir Putin of Russia, and from European Economic Union for Scandinavia ideal for Alan Bond's HOTOL or Xcor's Lynx spaceplanes. Such spaceplanes in turn could consist of Robert L. Morrison's patented lighter than air solids sealed in metal foil for maximum lift of Bundo's patent, yaw pitch roll steered via reaction wheel gyrodyne gyrostablizers of Meston's patent, be multistage of Luther's patent, use upward angular accelceration into orbit of D'Auvergne's patent, initial lift Lockwood valveless pulsejet engine patent or Dacre's low noise engine patent powered by Podrog's x-ray on hafnium patent, and jetavator thruster patent of Osada for retrorocket translational steering. Naranjo and Putterman of UCLA improved on a Farnsworth design with a cryogenically cooled pyroelectric crystal so by placing a molecular sieve to only allow carbon dioxide to enter for ionization before fusing carbon into oxygen improved with a laser optical trap one could permanently convert exhaled carbon dioxide into oxygen. In conclusion muon catalyzed fusion was a victim of Eurocentric xenophobic racism outcast into obscurity of just a few cyclotronists just as Mary Kenney who patented ground based fans to direct gales to allow aerial traffic in close urbanized areas was forgotten since she had to use her attorney's name for her patent's assignee only cited by a Patent by Marshall J. Corbett of Grumman..