

Research Article

Entrepreneurial Efforts: Cold Fusion Research at JET Energy Leads to Innovative, Dry Components

Mitchell R. Swartz*

Nanortech Inc., P.O. Box 81135, Wellesley Hills, MA 02481, USA

Abstract

Dry, preloaded NANOR[®]-type technology makes cold fusion (LANR) reactions more accessible. These self-contained, two-terminal nanocomposite components have at their core PdD and NiD nanostructured material. Their CF/LANR/CF activation is separated from their loading, and yields up to 20 times input; characterized by reasonable reproducibility and controllability. With an excess power density of 19,500 W/kg, and zero-carbon footprint, could these ready-to-be-activated NANOR[®]-type LANR components/systems/materials be the future of clean efficient energy production?

© 2015 ISCMNS. All rights reserved. ISSN 2227-3123

Keywords: Dry cold fusion component, NANOR, Preloaded cold fusion component, Preloaded energy production

1. Making CF/LANR Technology Available

1.1. Growing challenges

Everyone wants a better source of energy. Consumers know what they want, and that is clean, non-radioactive power for homes, heating, water, and cars. They also want less dependence on oil and commercial viability of its successor is neither wind nor solar – because they are unreliable. A thriving, expanding way of life needs a low cost solution using advanced technology to wean ourselves from petroleum to clean, efficient, energy production from CF/LANR nanomaterials.

1.2. The light at the end of the tunnel

Dry, preloaded NANOR[®] technology makes some LANR reactions accessible. This technology uses a new vista of advanced materials and processes resulting in these preloaded, dry, ready-to-go devices. They deliver the desired reactions from proprietary complex hydrogen-loaded alloys and engineering systems to create quite a bit of heat. The

*E-mail: mica@theworld.com

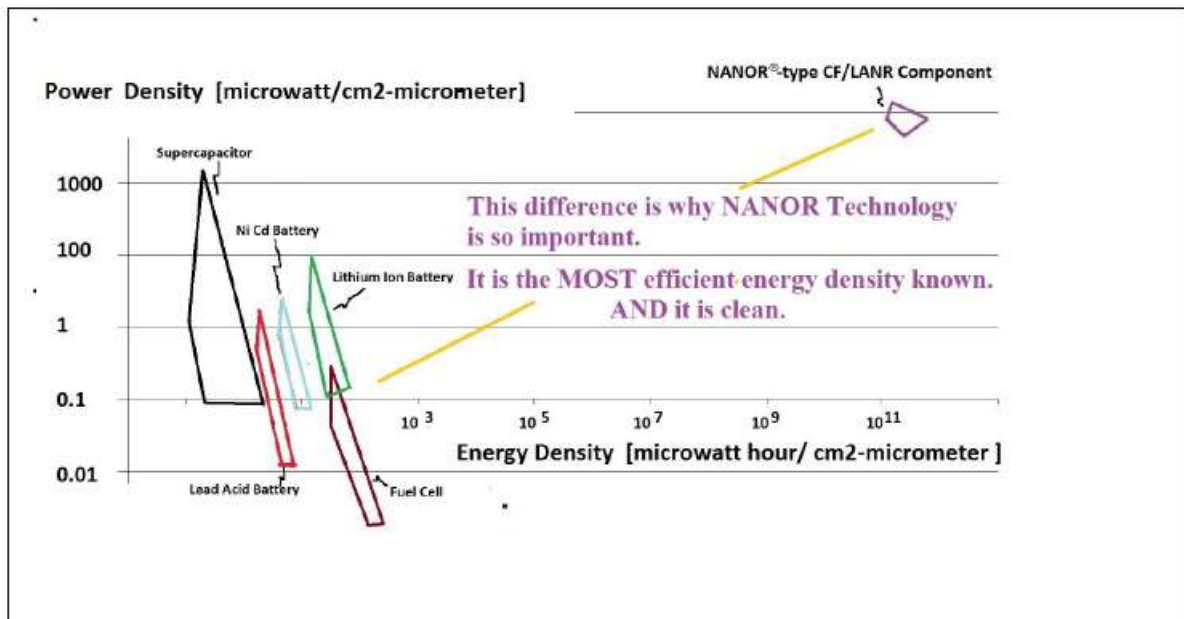


Figure 1. Shown is a Ragone plot quantitatively presents both the power density and energy density of typical energy production (and energy storage/energy conversion) sources and the NANOR-type cold fusion (lattice assisted nuclear reaction) quantum electronic component. The latter is one of the most efficient energy density devices known, and it has zero carbon footprint.

excess energy gain compared to driving input energy is up to 20 times (or more). The carbon footprint is zero, and the next generation will have higher power, and ultimately produce electricity.

This technology is a superior quality, “must have”, material, post-processing technique, and sought-after apparatus which makes “turn key” use of proprietary materials and processes to deliver a fairly reproducible LANR system.

1.3. The NANOR and NANOR Explorer

In the first decade of the 21st Century, JET Energy invented, developed, then publicly demonstrated a new type of energy production device – the NANOR[®]-type CF/LANR component. It is a new solid-state device, containing palladium, nanoparticles embedded in zirconium oxide insulation and preloaded with deuterium, which greatly enhances repeatability and was at the heart of the 2012 Demonstration unit shown at MIT. This received worldwide attention then, and continues to do so, now.

2. Business Model

2.1. Technology transfer program

On July 1, 2013, Nanortech Inc. was launched in the Commonwealth of Massachusetts to solely focus on advancing and producing the NANOR[®]-type LANR quantum electronic component and its associated controlling platform. Nanortech is developing the first line of these LANR products.

Our Goal is to Make NANOR[®] technology and NANOR[®]-type CF/LANR components and systems available as unique, high efficiency, clean, energy production platforms.

Nanortech, Inc.

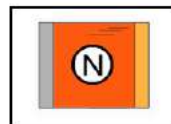


Figure 2. Light at the ‘End of the Tunnel’.

Dry NANOR[®]-type Clean Abundant Energy Technology
 Energy gain of up to ~20 times more than is put in
 The Carbon Footprint is zero
 Confirmed technology
 Unique and with high power gain
 Status/post two open demonstrations at MIT
 Several Avenues of R&D Ongoing
 Developing M-NANOR[®] systems
 Quality assurance techniques
 Variety of activation methods

The NANOR[®]-type CF/LANR technology will, with the NANOR[®] and NANOR Explorer, enable others to perform better work in their labs. It also gives others the capacity to test their theories, ideas, and supplemental technologies.

The goal is to make NANOR[®]s technology and NANOR[®]-type CF/LANR components and systems available as unique, high efficiency, clean, energy production platforms. Now, with these devices and technology, others, too, will experience the thrill of generating even more excess heat with their own innovations! Simply put, these technologies give the valued luxury of the proverbial “ticket” to join in the exploration of this exciting, newly opened frontier.

The excess energy gain compared to driving input energy is up to 20 times (or more). The carbon footprint is zero, and the next generation will have higher power, and ultimately produce electricity. The energy and power densities of cold fusion are so large (Fig. 1) that insertion of this healing technology may be the ‘light at the end of the tunnel’ (Fig. 2) [1,2].

References

- [1] M.R. Swartz, G. Verner and J. Tolleson, Energy gain from preloaded ZrO_2 -PdNi-D nanostructured CF/LANR quantum electronic components, *ICCF-17*, Daejeon, Korea, 2012.
- [2] M.R. Swartz and P.L. Hagelstein, Demonstration of energy gain from a preloaded ZrO_2 -PdD nanostructured CF/LANR quantum electronic device at MIT, *ICCF-17*, Daejeon, Korea, 2012.