

I am very pleased to announce G. W. Aru, LLC is now working with Magma Ceramics and Catalyst, a UK-based company, helping develop and support the market for their new and innovative patent pending Steam Methane Reforming (SMR) hydrogen plant catalyst. Magma has been a long-time toll manufacturer for others of numerous catalysts and purification sorbents, including various hydrogen plant catalysts, and is now proud to bring this new technology to market under their brand. We are delighted to be allied with this principled and innovative company.

Magma have rethought reforming catalyst back to first principles beginning with the carrier support and have executed a four-year multifaceted development program to examine and improve all properties impacting SMR catalyst performance. The result is a catalyst which provides:

- A significantly stronger and higher porosity carrier
- Carrier manufacturing with large flexibility in shape and surface texture design
- Significantly higher GSA and activity
- Ability to optimize nickel loading and placement
- Anti-carbon carrier with novel promotion eliminating corrosive potash usage
- Ability to custom manufacture for specific applications, tube layering and unique requirements of individual tubes in the SMR

The resulting benefits are:

- Increased reforming efficiency
- Smaller, lower capital-cost SMR designs for equivalent throughput
- Reduced pressure drop, longer life reducing changeout frequency and potential to equal tube life in some applications
- Significantly reduced catalyst cost per volume of gas reformed
- Applicable, compatible and easily usable in all primary and secondary reforming applications
- Elimination of downstream corrosion and fouling issues possible with other manufacturers' conventionally promoted catalysts

These are achieved with pelleted catalysts that are the same from a handling and loading perspective as currently used, including the ability to use in-tube temperature probes, but significantly advanced from a technology perspective. This eliminating the need for significantly more expensive, complex and difficult to use technologies (e.g., metal foils) proposed by others to achieve just some of these results.

Please contact Guido Aru at Guido.Aru@GWAru.com or any of our sales team at www.gwaru.com for additional information about this exciting new SMR catalyst as well as to learn how we at G. W. Aru, LLC can address all your hydrogen and syngas plant catalyst and purification sorbent requirements.

About Magma Ceramics and Catalyst: The company was founded in February 2010, following the management buyout of the former Dyson Group business, Dyson Precision Ceramics. Magma have two divisions, notably Magma Catalyst and Magma Ceramics, and operate worldwide from facilities in the UK, Brazil and Vietnam. Magma has the backing of strong technical and financial resources and a wealth of practical experience.

Magma operate a manufacturing plant from their head office in Dewsbury, West Yorkshire (UK), a manufacturing plant on the Wirral, UK. Most recently, they acquired a new 6000m² manufacturing facility in Vietnam, ideally situated between Hanoi and North Vietnam's main international sea port, Haiphong, on a purpose-built industrial estate which already serves a wide range of international manufacturers.

Magma is an [ISO 9001:2015, ISO 14001:2015 and OHSAS 18001:2007](http://magmaceramics.com/) accredited company and all their sites adhere to these worldwide standards. Please see <http://magmaceramics.com/> for more information about Magma.

G. W. Aru, LLC America's Sales Team:



Guido Aru
East and West Coast
(PADD 1 and 5)
Guido.Aru@GWAru.com
+1 (303) 887-8196



Dr. Natalie Herring
Rocky Mountains, mid-Continent
(PADD 2 and 4) and Canada
Natalie.Herring@GWAru.com
+1 (434) 480-1629



Gerald Santos
Gulf Coast (PADD 3) and
Latin America
Gerald.Santos@GWAru.com
+1 (832) 800-0774

Rest of the World Sales:



Eugenio Macaluso
Eugenio.Macaluso@GWAru.com
+39 (339) 464-9310

Director of Operations
And Customer Service:



Darlene Aru
Darlene.Aru@GWAru.com
+1 (209) 471-3704