



## **Engineering Seminar**

# **Ceramics are the Material of the Future**

***Daniel L. Barth***  
***Friatec AG Ceramics***

**Tuesday, March 13, 2018**  
**10:00 a.m.**  
**Cebaf Center, F113**

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The presentation will cover the quality control and sizing of raw materials used in producing High Purity Ceramics and the Manufacturing Techniques needed to ensure a finished High Quality Vacuum component. Manufacturing techniques will include: ISO-Static pressing, Dry pressing, Extrusions, Wet pressing, Injection molding and Casting

It will be an interactive discussion on manufacturing techniques used to produce custom ceramics, fabricated components for various applications/ industries. The use of ceramics has exceeded expectations as a material for the future because of their strong technical properties such as hardness, excellent resistance to corrosion, abrasive and erosive wear, resistance to high temperatures and electrical properties. There will be many samples of metal /ceramic fabrications, high vacuum components, electrical feed-throughs, high temperature tubes, sensors and highly precision-machined components.

Dan Barth has over 40 years of designing, engineering and manufacturing of custom high temperature molten salt pumping systems for niche markets such as solar and nuclear power generation, handling of radioactive wastes and manufacturing of explosives. He has worked and lectured at all of our National Labs and many Universities on high voltage accelerators, custom electrical feed-throughs, high-voltage insulators, high temperature applications and custom manufactured parts from ceramics.