

# Opportunities for Advanced Ceramics to Meet the Needs of the Industries of the Future

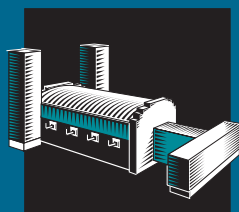
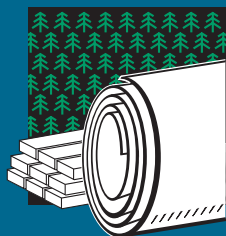
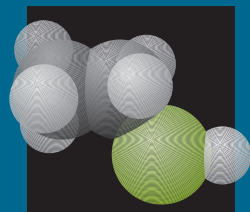
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# **F**OREWORD

This study was performed in partnership by the U.S. Department of Energy (DOE) Office of Industrial Technology (OIT) and the United States Advanced Ceramics Association (USACA). Its purpose is to educate the materials community and the industrial sector (aluminum, chemicals, forest products, glass, metalcasting, refining, and steel) on advanced ceramics as a new generation of materials for industrial applications. As outlined in the results of the study, advanced ceramics—refractories, monolithic ceramics, ceramic composites, and coatings—have the potential to help the Industries of the Future Program meet the industries’ goals described in their visions and roadmaps. Ceramics are already fulfilling some of the needs in the Industries of the Future and other related industries.

Denise Swink  
Deputy Assistant Secretary  
Office of Industrial Technology

The needs and opportunities highlighted in this report will continue to be explored, and resulting developments made in partnership with industry will become part of a portfolio of services provided in support of the Industries of the Future. Through the integrated delivery approach, OIT focuses on making individual companies aware of all potentially applicable technologies, tools, expertise, and funding while providing the right services to meet the customer’s needs.

I hope that this document provides a greater understanding of the potential of ceramics, stimulates advances in the technology, and encourages new alliances and partnerships. I look forward to seeing some of these vision opportunities turn into reality.