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## **FOR IMMEDIATE RELEASE**

### **AIST ANNOUNCES 2017 T.C. GRAHAM PRIZE FINALISTS** *Recognizing innovative steel applications for development of new markets*

PITTSBURGH, 22 August 2017 — The [Association for Iron & Steel Technology \(AIST\)](#) is proud to announce the finalists for the third annual [T.C. Graham Prize](#). This unique contest was established in 2014 through an endowment from one of the steel industry's most successful and innovative executives, Tom C. Graham Sr.

The T.C. Graham Prize recognizes innovative applications for steel that may lead to the development of new markets. The winning entry will receive US\$20,000.

Entries for the 2017 T.C. Graham Prize competition represented a diverse group of individual applicants and teams from the United States and several countries around the world. After the proposals were reviewed by 37 steel industry professionals, four semi-finalists were chosen. The semi-finalists delivered their presentations to AIST on Wednesday, 16 August 2017, where three finalists were selected.

The 2017 T.C. Graham Prize finalists are:

- 1. “Transforming Steel for Advanced Applications in Energy, Heat Management and Transportation”**  
*Chunlei Guo, Erik Garcell, Subhash Singh and Anatoliy Vorobyev, Rochester, N.Y., USA*  
Recently developed laser processing technologies pioneered by Prof. Chunlei Guo's lab have instilled regular steel with superior light-absorption and water-repellent properties without chemical coatings. These properties enable steel to be used in a range of new industrial applications, ranging from enhanced energy harnessing and nearly maintenance-free oil and gas pipelines, to ice-free rail tracks, power lines, equipment, and vessels to be used in the harshest and coldest environments.
- 2. “Flash Bainite: ‘Stronger Than Titanium, Lighter Than Aluminum and Cheaper Than High-Strength Steel’ for Lighter, Safer, More Fuel-Efficient Automobiles”**  
*Gary M. Cola Jr., Washington Twp., Mich., USA*  
Flash Bainite Processing is an evolutionary steel heat-treating technology capable of producing 1,600 MPa sheet in just 5 seconds. Flash 1600 has been proven in auto OEM test labs to reduce mass 20–58% while maintaining performance and reducing cost. Flash technology is an entirely new field of ferrous metallurgy that leverages the natural heterogeneity of steel to create a highly complex, nanorefined microstructure with unparalleled mechanical properties.
- 3. “A Sustainable Wind Generator”**  
*Leroy Stebbing, Norfolk, Neb., USA*  
This new patent-pending design for wind power generation has several advantages over existing technology. Wind is captured at high elevation and ducted down through a hollow shaft, where it is used to drive ground-level turbine wheels. Now it is controlled, tailored and used for ground-based wind turbine generation of power.

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Finalists will present their proposals to the [Contest Jury](#) on 30 August. The Contest Jury consists of **John Brett**, president and chief executive officer, ArcelorMittal USA; **Peter Campo**, president, Gerdau Long Steel North America; **John Ferriola**, chairman, president and chief executive officer, Nucor Corp.; **Mark Millett**, president and chief executive officer, Steel Dynamics Inc.; and **Roger Newport**, chief executive officer, AK Steel.

For more information regarding the T.C. Graham Prize or to read about last year's winner, please visit the [T.C. Graham Prize webpage](#).

[AIST](#) is a non-profit technical association of 17,000 members from 70 countries, with the mission to advance the technical development, production, processing and application of iron and steel. The organization is recognized as a global leader in networking, education and sustainability programs for advancing iron and steel technology.

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