

117TH CONGRESS
2D SESSION

S. RES. 639

Congratulating Ames Laboratory on 75 years of outstanding service.

IN THE SENATE OF THE UNITED STATES

MAY 17, 2022

Mr. GRASSLEY (for himself and Ms. ERNST) submitted the following resolution; which was considered and agreed to

RESOLUTION

Congratulating Ames Laboratory on 75 years of outstanding service.

Whereas Ames Laboratory was established by the Atomic Energy Commission on May 17, 1947, as a National Laboratory;

Whereas Ames Laboratory originated as the Ames Project at Iowa State College, later known as Iowa State University, which, under the leadership of Frank Spedding and Harley Wilhelm, contributed valuable scientific and production assistance to the Manhattan Project, including—

(1) a unique method of purifying uranium metal;

(2) substantial quantities of purified uranium metal to the first human-made self-sustaining nuclear chain reaction; and

(3) 2,000,000 pounds of purified uranium in assistance of the war efforts of the United States during World War II;

Whereas Ames Laboratory (as the Ames Project at Iowa State College) was recognized on October 12, 1945, for its contributions to the defense of the United States during World War II with the award of the Army-Navy “E” flag for Excellence in Production, the only educational institution to be so honored;

Whereas the science and technology developments of Ames Laboratory have contributed to the advancement of human understanding and the benefit of society over 7 ½ decades, including—

(1) the discovery, design, and mastery of rare earth and other materials that helped advance early progress of the Atomic Age;

(2) globally recognized expertise in the properties of rare earth elements and their importance in technologies such as data-storage, wind power, lighting, and batteries;

(3) the invention of lead-free solder, which removed toxic lead from electronic manufacturing processes;

(4) the understanding of quasicrystals, including work by scientist Dan Shechtman, winner of the 2011 Nobel Prize in Chemistry;

(5) national and international leadership in critical materials important for United States manufacturing;

(6) the development of analytical equipment to enable the mapping of the human genome;

(7) the development of analytical instrumentation that can detect parts per trillion of atoms, molecules, and compounds;

(8) the discovery and development of catalysts leading to cost-effective biofuel production;

(9) the development of metal and alloy powder synthesis to accelerate the adoption of 3D printing and enable clean energy technologies;

(10) the discovery of the first giant magnetocaloric material and demonstration of magnetic refrigeration;

(11) the discovery of chemical processes to convert plastic waste into valuable resources; and

(12) ground-breaking advances in the understanding of superconductors and topological semimetals;

Whereas Ames Laboratory is the home of the Materials Preparation Center, a research facility globally recognized for its unique capabilities in purification, preparation, and characterization of metals, alloys, and single crystals;

Whereas Ames Laboratory is the home of the Critical Materials Institute, an Energy Innovation Hub that provides the United States with vital supply chain expertise in rare earth and other critical materials, including—

(1) diversifying supplies of rare earth and other critical material resources;

(2) developing substitutes for high-demand materials; and

(3) driving recycling and reuse;

Whereas Ames Laboratory is a leader in technology transfer, with 257 issued United States patents and licensed innovations resulting in worldwide sales of more than \$3,000,000,000 and returning royalty revenue of nearly \$78,000,000; and

Whereas Ames Laboratory has nurtured more than 2,500 graduate students in its history, mentoring the scientific leaders and innovators of tomorrow through education

and outreach programs designed to train and inspire young minds for the discoveries of the future: Now, therefore, be it

1 *Resolved*, That the Senate congratulates Ames Lab-
2 oratory for 75 years of outstanding service to the Depart-
3 ment of Energy, the United States, and the world in ful-
4 filling its mission as a National Laboratory dedicated to
5 discovery and innovation in the chemical and materials
6 sciences.

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