2016 R&D 100 Awards – Berkeley Lab Finalists Award winners will be announced in November 2016

Computing Sciences Nomination Managers: Jon Bashor, Kathy Kincade

Shifter (Canon, Jacobsen)

Customized software package for deploying containers and user-defined images in high performance computing systems

<u>Carbon Capture Simulation Toolkit</u> (Agarwal and researchers at NETL, LLNL, LANL, PNNL, Carnegie Mellon University, West Virginia University, Princeton University, Boston University, and University of Texas at Austin)

Computational tools and models that accelerate development of carbon capture technologies by reducing risk and uncertainty

Energy Technologies Area Nomination Manager: Erin Bertiglia

<u>Cool Roof Time Machine</u> (Levinson, Destaillats, Sleiman and a researcher at Concordia University) Method for rating and prototyping cool roofing products that simulates three years of weathering and soiling in less than three days

Sustainable, Affordable Fluoride Removal (Gadgil)

Ultra-low-cost fluoride remediation approach using mildly-processed bauxite, readily available worldwide

DER-CAM+ (Stadler)

Advanced decision support tool for optimizing investment capacities, placement, and dispatch of distributed energy resources

<u>Grid Burner</u> (Therkelsen, Tucker, Cheng, Rapp)

Open flame cooking burner that provides enhanced cooking, improved efficiency, fuel savings, and reduced air pollutant emissions

Biosciences Nomination Manager: Ingrid Peterson

<u>Diode Beamstop</u> (Bryant)

Compact, customizable tool for X-ray scattering experiments providing real-time data

Materials Sciences Division and Molecular Foundry Nomination Manager: Branden Brough

PIM Membrane for Li-S Batteries (Helms)

Low cost, easily processed polymer membrane enabling next generation lithium-sulfur batteries with enhanced lifetimes and energy efficiency