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A technology developed by a National Energy Technology Laboratory (NETL) researcher has been selected to receive *R&D Magazine's* prestigious R&D 100 Award, emblematic of one of the top 100 most technologically significant products to enter the marketplace last year.

Researcher Dr. Ranjani Siriwardane, a Group Leader in NETL's Separations and Fuels Processing Division, developed and patented a low-cost, solid-state sorbent, called a clay-liquid carbon dioxide (CO₂) removal sorbent, that removes CO₂ from power plant flue gas and other gases. Dr. Siriwardane, a resident of Morgantown, W.Va., will receive her award during *R&D Magazine's* awards banquet in Orlando, Fla., on November 12, 2009.

Regarding the importance of the award, the magazine's editors, as well as independent judges, select products and processes "that can change people's lives for the better." According to the magazine, the expected result of the selected technologies is to "improve the standard of living for large numbers of people."

Dr. Siriwardane received her Ph.D. from Virginia Tech and joined NETL in 1982. She began focusing on CO₂ removal sorbent research in 2001. To continue using fossil fuels for power generation while reducing emissions of CO₂ to environmentally acceptable levels, low-cost capture and sequestration technologies must be developed for conventional stationary power plants. Her sorbent's low cost, availability, and simple preparation contribute to a significant reduction in total energy costs when compared to currently used commercial processes associated with carbon sequestration. The end result is that operators can continue to burn coal to provide low-cost electric power to consumers. Feasibility of commercial-scale preparation of the sorbent has been demonstrated in cooperation with Sud-Chemie of Louisville, Ky., using NETL- developed technology.

NETL is one of the U.S. Department of Energy's national laboratories. NETL – "the ENERGY lab" – focuses on America's economic prosperity, which requires secure, reliable energy supplies at sustainable prices. Three overarching issues characterize the energy situation in the United States. They are energy affordability, supply security, and environmental quality. The Department of Energy's only government-owned, government-operated national lab, NETL is a research and technology center where these energy challenges converge and energy solutions emerge. NETL implements a broad spectrum of energy and environmental research and development programs through its own research staff and through funded research at other labs, universities, and industry that will return benefits for generations to come.

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