



News Release

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Rossin Recognized for Warfighter Respiratory Protection Technological Contribution

Edgewood, Maryland – The US Army Edgewood Chemical Biological Center (ECBC) presented Dr. Joseph Rossin of Guild Associates, Inc. with a Performance Recognition Medal on November 15th for his contributions in expanding the protection factor of filtration material commonly found in protective masks, building HVAC systems, military vehicle air handling systems and other environmental control devices.

“Part of ECBC’s mission is to help the military and the civilian communities mitigate the effects of a biological or chemical terrorist attack. The protection of vehicles, shelters, fixed sites, and especially the people in them, is a critical part of our defense. Filtration material that can filter out a wide range of toxic materials plays an important role in protecting against chemical or biological contamination,” said Jim Zarzycki, Technical Director of ECBC. “Rossin’s accomplishments are regarded as outstanding and we recognize and appreciate his commitment to ensure that the best filtration technology for respiratory protection is available for our military personnel.”

Working in collaboration with ECBC, Rossin was instrumental in developing a new class of sorbent structures, which are effective in removing toxic industrial chemicals and chemical warfare agents. “These improvements are not marginal enhancements to current filters, but are regarded as a significant advancement in sorption science, one that has inspired academia, industry scientists and engineers to follow, said Chris Karwacki, ECBC Research Chemist.”

These materials and engineered sorbent compositions have met the technical challenges and requirements of the Joint Service General Purpose Mask filter system.

During the period of 2001 to 2005, key sorbent materials and filter bed designs have been developed and successfully transitioned for Low Rate of Initial Production. Rossin’s class of sorbent compositions are being demonstrated in variants of the M98 and M48 filters under the Joint Collective Protection Equipment and Defense Advanced Research Projects Agency programs, as well as a number of filters by international manufacturers such as those located in the United Kingdom.



Zeolite, one of the new sorbent structures created to remove toxic industrial chemicals and chemical warfare agents.

The Department of Defense regards protecting the US Warfighter during a chemical event as a major priority, and a primary element for insuring maximum safety to personnel and sustainment of military operations. A critical component in the suite of chemical defense materiel is the capability to provide individual and collective respiratory protection to soldiers through the use of filters for masks, shelters and vehicles. The ability to provide clean breathable air to the Warfighter in a contaminated environment rests solely and uniquely on the performance of sorbents contained in filters.



From Left to right: Wayne E. Ballantyne, Senior Program Manager, Guild Associates, Inc. Christopher J. Karwacki, Research Chemist, CBR Filtration Leader, ECBC Joseph A. Rossin, Head Catalyst Applications Richard Decker, Director Engineering ECBC Salvatore T. Dinovo, President Guild Associates, Inc. Photo by ECBC PAO.

ECBC is the Army's principal research and development center for chemical and biological defense technology, engineering and services. ECBC has achieved major technological advances for national defense, civilian needs and industrial competitiveness, with a long and distinguished history of providing the Armed Forces with quality systems and outstanding customer service. ECBC is located at the Edgewood Area of Aberdeen Proving Ground, Maryland. For more information about the Edgewood Chemical Biological Center, please visit our Web site at <http://www.ecbc.army.mil> or call (410) 436-3610.