

CURRICULUM VITAE

VEERA M. BODDU, PhD, PE, BCEE, AIC Fellow, AIChE Fellow, IChE Fellow

Former Senior Scientist, Remediation Research
Wide Area & Infrastructure Decontamination Branch (WAIDB)
Homeland Security & Material Management Division (HSMMD)
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PROFILE

Amiable, Driver, and Results-Oriented

Veera Boddu was a Senior Scientist (Remediation Research) with the Center for Environmental Solutions & Emergency Response (CESER), Office of Research and Development (ORD) of USEPA (Feb 15, 2020 – Dec 31, 2025). Before joining the USEPA, Veera worked with the U.S. Army Corps of Engineers (ERDC-CERL), Champaign, IL., and Agricultural Research Service (ARS) of the U.S. Department of Agriculture, Peoria, IL. At the ARS, he held positions as a Research Chemical Engineer, Research Leader of Plant Polymer Research (PPL) Unit, and the Acting Center Director.

Dr. Boddu is a Chemical Engineer by education and training; his technical expertise includes environmental separations (Adsorption and membrane separations), advanced oxidation processes, and air emissions control from Army Industrial Facilities. His experience includes wastewater treatment at Army munitions manufacturing plants and Load, Assemble, and Packaging (LAP) operations. He conducted research on the development of biobased polymers and polymer gels, and on the development of sustainable materials from agricultural commodity crops and crop wastes. His research projects included the utilization of agricultural wastes, carbon sequestration, waste minimization, and waste treatment. He has about 90 peer-reviewed publications, nearly 100 conference and invited presentations, co-authored/edited four books, and five patents. He is a Fellow of the American Institute of Chemical Engineers, a Fellow of the American Institute of Chemists, a Member of the American Chemical Society, and a Board-Certified Environmental Engineer (BCEE) by the American Academy of Environmental Engineers. He is a Registered Professional Engineer in the state of Missouri. He received a distinguished achievement medal from the U.S. Department of the Army for Civilian Service, Commander's Award for Civilian Service, and Researcher of the Year Award. He also served as an Adjunct Professor (~9 years) in the Nuclear Science & Engineering Institute (NESI) at the University of Missouri, Columbia, Missouri.

As a Senior Research Chemical Engineer at the Plant Polymer Research (PPL) unit at the National Center for Agricultural Utilization Research (NCAUR), USDA, in Peoria, IL, I conducted multidisciplinary research focused on developing materials for environmental sustainability. He was the Research Leader for the PPL Unit for five (5) years from 2015 through 2020. He also served as the Acting Center Director of the NCAUR on detail with the responsibility of overseeing seven (7) management units with about 170 scientists and engineers (~70 Ph. Ds), technicians, and administrative support personnel with annual mission funded programs of about \$32 M. At NCAUR, he researched biopolymer gels, synthesis and evaluation of biochar, and membrane and sorbent-based separation technologies for agricultural runoff water treatment.

Before joining the USDA, Dr. Boddu was a Senior Scientist (GS-15/DB-V) with the Environmental Processes Branch of the U.S. Army Corps of Engineers Research Laboratories in Champaign, IL. He has 25+ years of service with the U.S. federal government as a researcher and research manager.

EDUCATION

Ph.D., University of Missouri – Columbia, Chemical Eng., May 1988,

M.S./M. Tech., Indian Institute of Technology, Kanpur, India, Chemical Eng., June 1982.

B.S/B. Tech., National Institute of Technology, Warangal, India, Chemical Eng., April 1980.

CBA (Certificate of Business Administration), University of Illinois, April 1999.

Sabbatical Research, Chemical Eng. Dept, University of Bath (UK), April –August 2006.

SES-Cohort 7: USDA-ARS sponsored Key Executive Leadership Certificate Program, American University, Washington, DC. (October 2020)

EXPERIENCE

February 2021 – December 2025: Senior Scientist, Remediation Research, Wide Area & Infrastructure Decontamination Branch (WAIDB), Homeland Security & Material Management Division (HSMMD), Center for Environmental Solutions & Emergency Response (CESER), Office of Research and Development, U.S. Environmental Protection Agency (ORD/USEPA).

Dr. Boddu was associated with the Wide Area & Infrastructure Decon Branch (ORD-CESESR-HSMMD-WAIDB) during February 2021 December 2025. As a Senior Scientist, he had the opportunity to participate in the development of the research program (FY23-26) in support of EPA regions' response to Chemical, Biological, Radiological, and Nuclear (CBRN) disasters. Dr. Boddu focuses on (1) Decontamination and Degradation of Airborne Chemical Biological Agents (CBA), (2) Waste minimization and treatment of CBA-containing waste streams generated from wide area decontamination while responding to disaster events, and (3) Carbon Sequestration and Carbon dioxide capture and utilization technologies. His responsibilities include reviewing several ongoing research programs and reports. He serves as a reviewer on seven Research Area Coordination Teams (RACT) and as a Team member, Product, Output, and sub-product lead, encompassing the programs in Homeland Security (HS), SSWR, SHC, and Air Climate Energy (ACE). He served as a reviewer for the CAAP proposals for CO₂ and H₂ pipeline transport of the Dept of Transport's Pipeline Health, Safety and Management Program. Serves as a Technical POC for SBIR Phase I & II projects.

June 2020 – February 2021: Research Chemical Engineer (GS15), Plant Polymer Research Unit (PPL), National Center for Agriculture Utilization Research (NCAUR), Agricultural Research Service, U.S. Dept. of Agriculture, Peoria, IL.

As a Research Chemical Engineer in the Plant Polymer Research (PPL) Unit at the National Center for Agricultural Utilization Research (NCAUR), USDA, in Peoria, IL, Veera conducted multidisciplinary research focused on developing materials for environmental sustainability. This research directly supports National Program 306, "Quality and Utilization of Agricultural Products." Research emphasis is on: (1) chemical, physical, or bio-catalytic modification of plant-based materials, biochars for treatment of agricultural runoff waters, and (2) polymeric blends of bio-based materials.

June 2015 – June 2020: Research Leader/Supervisory Research Chemical Engineer (GS15), Plant Polymer Research Unit (PPL), National Center for Agriculture Utilization Research (NCAUR), Agricultural Research Service, U.S. Dept. of Agriculture, Peoria, IL.

As the Research Leader (RL) for the PPL unit, Dr. Boddu manages a team of 24 persons (10 Ph.D. scientists (SYs), 11 technicians, one retired Ph.D. volunteer scientist, one PSA, and two students). Dr. Boddu is responsible for developing and executing basic and applied research to create value-added products from agricultural commodities. As the fundholder, he was responsible for managing the unit with three Current Research Information System (CRIS) projects: (1) Renewable Biobased Particles, (2) Improved utilization of proteinaceous crop co-products, and (3) Modification of natural polymers by novel processes. Dr. Boddu manages these mission-funded projects under the National Program #NP 306 – Quality and Utilization of Agricultural Products and coordinates with the National Programs office of the USDA-ARS and Midwest Area Administrators to develop the research projects, ensure their successful execution, and deliver the deliverables in a timely and most economical manner. The research addresses the utilization of agricultural commodities and the development of biobased industrial products. Providing novel, environmentally friendly, bio-based industrial products, while generating new fundamental knowledge, leading to the development of new technologies. Dr. Boddu focuses on developing a basic understanding of scientific significance, leading to pilot-scale demonstrations and eventual transfer of technologies to external agents, stakeholders, and other industrial collaborators. Dr. Boddu also conducts fundamental and applied research to treat agricultural runoff water contaminated with pesticides, nitrate, and phosphate fertilizers using biopolymers and filtration techniques, and he develops filter media made from avocado pits and other biochar from crop residues.

Under his leadership, the unit received national program-funded post-doctoral fellowships, summer student internships, and a Wallace-Carver fellowship. With his mentorship and facilitation, unit members received funds from (1) National Institute of Food and Agriculture (NIFA)/Purdue Univ. to study electrospun zein (corn protein) fibers to develop gluten-free bread and other products, (2) a Chicago based industry (Viskase Co.) to develop starch-based films for sausage and hotdogs packaging, (3) an Illinois protein extraction company (Lincoln Energy), and (4) for developing non-acrylate bio-preferred seed coat polymers. In addition, Dr. Boddu actively engages with industry (ADM, P&G, Viscase Co., Lincoln Energy, Cargill, Staley, Flavor Innovations, and Prairie Gold); academia (Univ. of Illinois, Iowa State University, Mississippi State, Univ. Mississippi, Univ. of Louisville, Tuskegee Univ., Univ. of Missouri, and Bradley Univ.), and Government Laboratories (U.S. Army Engineer Research and Development Center (US Army-ERDC) and U.S. Army Armament Research, Development and Engineering Center (US Army-ARDEC) for research collaborations and to develop joint research proposals to seek external funding. The unit also hosted a visiting professor from Brazil to research ionic liquids derived from agricultural sources. In the past two and a half years, the unit scientists have also submitted invention disclosures. Dr. Boddu promotes scientific innovation, external collaborations, and technology transfer. Dr. Boddu fosters workplace diversity, STEM and outreach activities, a can-do attitude, and a team approach. He served on the Midwest Area Diversity and Equal Opportunity Council (MWA-DEOC) and NCAUR's Civil Rights Employee Development Organization (CREDO) and actively participates in its activities (contributing news articles to its news magazine, *Medley*). He serves as a technical advisor on (1) the NSF/Iowa State University Center for Bioplastics and Biocomposites (CB2), (2) the Greater Peoria Lakes Conservation Committee, and (3) on the Editorial Board of Journal of Polymers and the Environment (Springer).

Aug. 2000 – June 2015: *Research Chemical/Environmental Engineer (GS 12 – GS 15), Environmental Processes Branch (CNE), U.S. Army Engineer Research and Development Center, Construction Engineering Research Laboratory (ERDC-CERL), Champaign, IL.*

As an ERDC-CERL Research Engineer, Dr. Boddu conducted fundamental and applied research to develop Environmental Technologies. He provided technical solutions to Army Industrial Wastewater and Air Emissions problems. His research projects included: (1) Development of Biosorption technology for perchlorate and explosives contaminated waste streams, (2) Environmentally Responsive Polymer Hydrogels, (3) Thermophysical Properties of Insensitive Munitions, (4) Separation of the explosives RDX

and HMX and other Insensitive Munitions, (4) Thermal Deactivation of Spent Munitions, (5) Emissions Control from Deactivation Furnaces, and (6) Detection and Mitigation Chemical and Biological Agents (CB agents, Toxic Industrial Chemicals and Materials, TICs and TIMs, funded by Strategic Environmental Research and Development Program -SERDP and the Defense Threat Reduction Agency-DTRA).

Management: Dr. Boddu managed a research group of 8~12 people. He developed research work packages and projects (like OSQR process at ARS) in which he identified research needs, developed scopes, objectives, and budgets; obtained resources (financial, personnel, and facilities); developed program execution plans (Project Management Plans, PMPs), with economic, personnel, facilities, milestones, deliverables-reports, publications, and technology transfer). He conducted research recognized by Army proponents, who awarded him over \$8M in funding across the 6.1 (basic), 6.2 (applied), and 6.3 (Demonstration & Validation) programs.

Technology Transfer: Dr. Boddu demonstrated energy and environmental technologies at Army Facilities (Rock Island Arsenal, IL; Corpus Christi Army Depot, TX; Watervliet Arsenal, NY; Radford Army Ammunition Plant, Radford, VA; Tooele Army Depot, UT; Fort Hood, TX; and Red River Army Depot, TX).

Research Collaborations: Dr. Boddu collaborated with several academic institutions, federal agencies, and private commercial entities [Academic institutions: Univ. of Missouri, Univ. of Illinois, Univ. of Mississippi, Mississippi State Univ., Tuskegee Univ., Massachusetts Institute of Technology; Federal labs: U.S. Department of Agriculture/ARS, New Orleans, US Army Armament Research, Development and Engineering Command (ARDEC), Army Research Laboratory (ARL), and National Renewable Energy Laboratory (NREL), Tank Automotive Research and Development Command (TARDEC), and Rock Island Arsenal; Private commercial entities- through Cooperative Research and Development Agreements (CRADAs) with Applied Nanomaterials Inc. (ANI), Bouldin Group., and several others].

Mar 97–Aug. 2000: Senior Process Research Engineer, Waste Management and Research Center, University of Illinois, Urbana, IL (Now- Illinois Sustainable Technology Center, ISTC).

Responsibilities: Conduct R&D and technology implementation assistance for waste streams and manufacturing process improvements at various small and medium-sized industries in Illinois. Provided process assessment, identification of possible processes, pollution prevention options, and process research and development of treatment technologies for waste streams. Help small- and medium-sized industries in Illinois stay environmentally compliant with regulations and be competitive by implementing pollution prevention (P2) technologies. Conducted numerous industrial site visits (at ~20 industrial facilities in 3 years) and provided technical help with P2 efforts by identifying suitable P2 technology, laboratory evaluation, and conducting pilot testing of the technologies at industrial facilities in Illinois. The industries under focus were metal finishing, small-scale chemical manufacturing, and food processing—managed/coordinated work with 2~3 persons in the group.

Feb. 1992 - Feb. 1997: Research Chemical Engineer (on contract through the Univ. of Cincinnati): Environmental Processes Branch (CNE), U.S. Army Construction Engineering Research Laboratories, Champaign, IL.

Responsibilities: (1) Environmental Technology Research and Development, and (2) Research Project Management. Specific projects associated with are: (1) Treatment of TNT manufacturing wastewater

(Redwater) using wet air oxidation and advanced oxidation (UV/O₃/H₂O₂) processes, (2) Evaluation of alternate raw materials for TNT manufacture to reduce waste streams, (3) Review literature and identify research needs for demilitarizing certain munitions components using advanced oxidation processes, (4) Development of membrane technology for separation of hazardous compounds from waste streams (liquid propellants, pink water) from the Army industrial operations, and (5) Development and evaluation of novel materials for adsorption and catalytic destruction of hazardous pollutants in the Army waste streams. Supervised 2~3 researchers.

May 1988 to Dec. 1991: Post-Doctoral Research Associate, University of Missouri – Columbia, Chemical Engineering Department.

Responsibilities: As a research associate on a project (funded by EPA Regions 7&8) to evaluate synthetic adsorbents for the removal of hazardous chemicals from water. Another project, funded by IBM Corp., studied the kinetics of oxidation of residual carbon formed during thermal degradation of polymers in electronic ceramic materials. Duties included: experimental design, setting up required apparatus, analysis of experimental results, and writing quarterly and annual reports to funding agencies. Helped several graduate and undergraduate students with their research projects. I taught an Engineering Thermodynamics course (with a full-fledged responsibility to teach, conduct exams, and grade students). Other projects included Supercritical Fluid Extraction and Evaluation of Thermophysical Properties of Electronic Ceramic Materials (IBM-sponsored).

May –August 1990: Temporary Teaching Faculty, University of Missouri – Columbia, College of Engineering, Taught Engineering Thermodynamics as a temporary faculty to sophomore and junior undergrad engineering students and also conducted undergrad laboratory classes.

Aug. 1987 – Mar. 1988: Research Assistant: Environmental Trace Substances Research Center, Univ. of Missouri Columbia, August 1987 March 1988. Performed residue analysis for pesticides and other hazardous chemicals. Worked on pesticide residue analysis of soil, fish tissue, and water. Also worked on dioxins analysis from soils collected from Times Beach, MO. Worked on a project to develop a supercritical carbon dioxide extraction method for chlorinated pesticides from soils and pesticides. An experimental setup for supercritical fluid extraction was designed and built and was associated with the development of a process for extracting hazardous chemicals using carbon dioxide under supercritical conditions. Research Assistant, Environmental Trace Substances Research Center, University of Missouri, Columbia, MO (50% Full-time Employment).

Sept. 1982- May 1987: Teaching Assistant: Taught Engineering Thermodynamics. Also worked as a teaching assistant in the Chemical Engineering Dept. (Sept. 1982 May 1987) for undergraduate courses in Thermodynamics, Digital computer applications, laboratory courses in Process Engineering Measurements, and Unit operations. Duties included grading reports and papers, tutoring, and classroom lectures.

May - June 1979: Engineering Intern: Design of Air Separation Plants, Bharat Heavy Plate & Vessels Ltd., Visakhapatnam, India. Assisted Design Engineers with the design of liquid air fractionation columns to produce oxygen, carbon dioxide, and nitrogen.

May-June 1978: Engineering Intern: Coromandel Agro Products & Oils Ltd., Chirala, India. Worked in the Solvent (Hexane) Extraction Plant and the Edible Oil Steam Refiner—assisted plant supervisors in setting up day-to-day operating conditions and material balances based on the raw materials analysis.

PROJECT AND PROGRAM MANAGEMENT EXPERIENCE

1. Managed three research projects (~\$4.2MM), developing scopes, project management plans (PMPs), annual project schedules and budgets (PSBs), and five-year research plans.
2. Successfully managed several basic, applied, and field demonstration projects for the Army.
3. Resourced funding and personnel (Hired contract and federal employees, Post-Docs, and Students).
4. Managed several research projects as a Contracting Officer's Technical Representative (COTR). Trained with Govt. Fiscal Law (Acquisitions).
5. Acquired goods and services for the government through GSAs, sole source, competitive bidding, and Broad Agency Announcement (BAA) mechanisms.
6. Served on the proposals review committees for NIFA, NSF, and DOT as a subject matter expert, and I am familiar with the proposal review process and federal acquisition process.

RESEARCH SPECIALTIES

1. **Air, Climate, and Energy (ACE) Research:** Research interests include Air emissions (GHG) reduction, Carbon Dioxide Capture and Utilization (CCU), Carbon Dioxide Removal (CRD), Air Quality, Sensible Energy Recovery, Phase Change Materials, Environmental Footprint Reduction, Carbon sequestration through biochar production through pyrolysis, and Assessment of biochar for carbon credits. Biochars are synthesized from agricultural feedstocks such as soybean hulls, cocoa pods, avocado pits, and condemned railroad ties. Several chemical reaction-based processes for CO₂ sequestration are also under review.
2. **Air Pollution and Particulate Emissions Control Technologies:** for fixed and mobile sources such as incinerators and military deactivation furnaces. Familiar with air monitoring and Hazardous Air Pollutants (HAPs) emissions control technologies. Laboratory applied research and field demonstration of particulate and metal vapor (lead, mercury, and cadmium) emissions control technologies.
3. **Polymer Hydrogel Synthesis and characterization:** Synthesis and characterization of superabsorbent hydrogels for environmental and molecular separations, Lipophilic oil absorbing gels synthesis and evaluation. A new solvent-free, gel cleaning technology. Also developed cellulose-based hydrogels for seed coating for germination in drought-torn areas.
4. **Biosorption/Adsorbents:** Synthesis of biosorbents/adsorbents from biomaterials and other natural materials, evaluation of the sorbents for water and wastewater treatment, and other separations. Assessment of the sorbents for treating water and wastewater, including agricultural runoffs with components of pesticides, fertilizers, nitroaromatics, and other organics, and metal ions.
5. **Materials and Characterization for Energy Conservation** in Building Envelopes and Deployable Military Shelters. Evaluated thermal properties and chemical stability of composite thermal insulations and phase change materials (PCMs) (several polymers and non-polymers included). Conducted accelerated aging (~20 years) and stability of the PCMs and advanced insulations under simulated weather conditions for energy conservation.
6. **Nano and Composite Materials Synthesis and Evaluation:** Synthesis and development of multifunctional blast and ballistic protection materials based on Carbon Nanotubes (CNTs), polymers, self-healing polymers, and glass fiber fabrics. Synthesis of Graphene, Porous Silicon, and Magnesium, Zinc, and Zerovalent Iron-Palladium Composites for reactive destruction of chem-bio agents and military compounds.
7. **Thermophysical Properties Munitions Compounds:** Nitroaromatic and nitramine explosives and other Military Related Compounds. Evaluated important environmental and bioaccumulation properties. Quantitative Structure-Property Relationships (QSPRs) and

Structure-Activity Relationships (SARs/QSARs) were also used to predict the thermophysical properties of insensitive munitions compounds.

8. **Water and Wastewater Treatment:** Conducted R&D and technology development with adsorption, membrane separation, wet air oxidation, and advanced oxidation processes for treatment of drinking water, munitions wastewater, and toxic wastewater (from chromium, cadmium, and other heavy metals from metal finishing facilities, Arsenals, Maintenance Depots, Ammunition Plants, Munitions Load, Assemble, and Packing facilities).

RESEARCH RECOGNITION AND AWARDS

1. Fellow, Indian Institute of Chemical Engineers (IChE), December 2025.
2. Distinguished Speaker Award at the Platinum Jubilee (77 Years) celebrations of the Indian Institute of Chemical Engineers (IChE), Jalandhar, India, December 27-30, 2024.
3. Distinguished Speaker Award at the Platinum Jubilee (76 Years) celebrations of the Indian Institute of Chemical Engineers (IChE), Kolkatta, India, December 29th, 2023.
4. Distinguished Speaker Award at the Platinum Jubilee (75 Years) celebrations of the Indian Institute of Chemical Engineers (IChE), Kanpur, India, December 28th, 2022.
5. Editorial Board, J. of Polymers and Environment, Springer Nature Publishers, Switzerland AG, 2017-2020.
6. Research and Development Award from the U.S. Army Engineer Research and Development Center (U.S. Army ERDC), 2015.
7. Dr. L. R Shaffer Award for Research and Development, Dec. 2014 (U.S. Army ERDC-CERL)
8. Fellow, American Institute of Chemical Engineers (AIChE), June 2012
9. A Top 25 most cited research article, Water Research, March 2011
10. A Top 10 Cited Articles during 2008—2010 in Carbohydrate Polymers, Elsevier, Nov. 2010
11. Shining Star Award, AIChE, March 2010
12. Best Paper presented, Energetic Materials Division, AIChE, Aug. 2009
13. Researcher of the Year, ERDC-CERL, December 2008
14. Commander's Award for Civilian Service, Dept of the Army, May 2008
15. Elected Fellow, American Institute of Chemists, July 2007.
16. Army Civilian Service Award, Dept. of the Army, June 2004
17. Adjunct Professor, Nuclear Science and Engineering Institute, Univ. of Missouri-Columbia, 2004-2018.
18. Adjunct Researcher, the University of Illinois at Urbana-Champaign, Waste Management and Research Center (WMRC), now Illinois Sustainable Technologies Center, 2000-2001.
19. Marquis Who's Who in Science and Technology, 1993
20. Superior Graduate Achievement Award, Univ. of Missouri, April 1988
21. Institute Fellowship (1980-82): Indian Institute of Technology, Kanpur, India.
22. State Scholarship (1976-1980): During BS, Regional Engineering College/National Institute of Technology, Warangal, AP, India

ACCREDITATIONS AND LICENSES

1. Board Certified Environmental Engineer (BCEE), American Academy of Environmental Engineers, November 2006.
2. Professional Engineer (PE), State of Missouri, August 1994.

Professional Publications-SUMMARY

Dr. Boddu has authored/co-authored about 87 papers in peer-reviewed journals, 18 peer-reviewed U.S. Army ERDC Technical Reports, co-edited three books, co-authored one book, co-authored several (~20) book chapters, and five patents. He has also authored/co-authored about 114 conference proceedings/presentations.

https://scholar.google.com/citations?hl=en&user=g_Rq8SsAAAAJ&view_op=list_works

(As of 01/21/2026)

Citations	7188
h-index	35
i10-index	74

PEER-REVIEWED PUBLICATIONS: 117+

1. **V.M. Boddu**, J. Morales, M.N. Nadagouda, L. Oudejans, L. Brooks, Thermophysical treatment technologies for chemical warfare agents sulfur mustard, sarin, and nerve agent VX—a review, *Environmental Science: Advances* 4 (10), (2025), pp.1538-1552.
2. K.K. Krishnani, **V.M. Boddu**, K. Nagendrasai, K. Arambam, J. Jacob, P. Chakraborty, A. Dixit, M.S. Raghuvanshi, A. K. Verma, L. Brooks, H. Pathak, The invasive aquatic macrophyte weed-Eichhornia: Its Management, Bioremediation Potential, and Valorisation, *J. of Env. Chem. Eng.* 13(6), (2025), 119462
3. J. Xu, **V. M. Boddu**, J. A. Kenar, Micro-Heterogeneity and Micro-Rheological Properties of Cellulose-Based Hydrogel Studied by Diffusion Wave Spectroscopy (DWS), *Cellulose Chemistry and Technology*, 58 (2024), pp. 1-7.
4. J. Xu, **V. M. Boddu**, S. X. Liu, Microrheological Investigation of Low-Viscosity Barley β -Glucan (LVBBG) Solutions by Diffusion Wave Spectroscopy (DWS), *American J. of Food Technology*, 18 (2023), pp. 8-15.
5. K.K. Krishnani, **V. M. Boddu**, R. D. Singh, P. Chakraborty, A. K. Verma, L. Brooks, H. Pathak, Plants, animals, and fisheries waste mediated bioremediation of contaminants of environmental and emerging concern (CEECs) – A circular bioresource utilization approach, *Environmental Science and Pollution Research* (2023), February, <https://doi.org/10.21203/rs.3.rs-2395216/v1>, 30 (36) (2023) 84999-85045.
6. K.K. Krishnani, **V.M. Boddu**, N.K. Chadha, et al., Metallic and non-metallic nanoparticles from plant, animal, and fisheries wastes: potential and valorization for application in agriculture, *Environmental Science and Pollution Research*, 29 (2022) DOI: 10.1007/s11356-022-23301-4, 29(54)(2022) 81330-81165.
7. Xu, J., **Boddu, V.M.**, Liu, S.X. Rheological Properties of Hydrogels Produced by Cellulose Derivatives Crosslinked with Citric acid, Succinic Acid, and Sebacic Acid, *Cellulose Chem. &Tech*, 56 (2022) 49–54.
8. K. K. Krishnani, K. Choudhary, K., **V. M. Boddu**, and et. al., Heavy metals biosorption mechanism of partially delignified products derived from mango (*Mangifera indica*) and guava (*Psidium guaiacum*) barks, *Environmental Science and Pollution Research* (2021) 28(14):1-14, DOI: 10.1007/s11356-021-12874-1.
9. V.M. Boddu, J. Xu, G. F. Fanta, Superabsorbent Hydrogels, US Patent Application no. 16/811,016, (2012).
10. Xu, J., **Boddu, V. M.**, Liu, S. X., and Cheng, W., A comparative study of microrheology of nanocellulose produced from corn stover using diffusing wave spectroscopy (DWS) and mechanical rheometry. *Cellulose Chemistry & Technology* 54 (2020) pp. 27-32.

11. Biswas, A., Cheng, H. N., Evangelista, R., Hojilla-Evangelista, M.P., **Boddu, V. M.**, Kim, S., Evaluation of Composite Films Containing Poly(vinyl alcohol) and Cotton Gin Trash, *J. of Polymers and the Environment*, 28 (7) (2020) pp. 1998-2007.
12. Gonzalez, J.M., **Boddu, V.M.**, Jackson, M.A., Moser, B.R., Ray, P. 2020. Pyrolysis of creosote-treated railroad ties to recover creosote and produce biochar. *Journal of Analytical and Applied Pyrolysis*. 149:104826. <https://doi.org/10.1016/j.jaap.2020.104826>.
13. Tisserat, B. Montesdeoca, N., **Boddu, V. M.**, Accelerated Thermal Aging of Bio-Based Composite Wood Panels, *Fibers* 2020, 8(5), 32; <https://doi.org/10.3390/fib8050032>
14. Biswas, A. Bastos, M. S. R. Furtado, R. F., Kuzniar, G., **Boddu, V. M.**, Cheng, H. N., Evaluation of the Properties of Cellulose Ester Films that Incorporate Essential Oils. *Int. J. Polym. Sci., (Special Issue on Synthesis and Characterization of Bio-Based Polymers from Forest and Agriculture Wastes)* 2020, # 4620868.
15. Gonzalez, J.M., Murphy, L.R., Penn, C.J., **Boddu, V.M.**, Sanders, L. L. Atrazine removal from water by activated charcoal cloths. *International Soil and Water Conservation Research*. 8(2), (2020) pp. 205-212. <https://doi.org/10.1016/j.iswcr.2020.03.002>.
16. Xu, J., Liu, S.X., **Boddu, V.M.** Micro-rheological and micro-heterogeneity properties of soluble glutinous rice starch (SGRS) solutions using diffusing wave spectroscopy (DWS). *J. of Food Measurement and Characterization*, 13 (2019) pp.2822-2827. <https://doi.org/10.1007/s11694-019-00202-8>.
17. Stone, D.A., Biswas, A., Liu, Z., **Boddu, V.**, Cheng, H.N. 2019. Synthesis and characterization of an iron-containing fatty acid-based ionomer. *International Journal of Polymer Science*. Vol. 2019, Article ID 3024784. <https://doi.org/10.1155/2019/3024784>.
18. Biswas, A., Cheng, H. N., Kim, S., Appel, M., **Boddu, V. M.**, Alves, C. R., Furtado, R. F., Preparation of sorbitol-based polyurethanes and their semi-interpenetrating polymer networks, *J. of Applied Polymer Chemistry*, **2019**, 136, Article #47402.
19. Gomez, A. V., Tadini, C. C., Biswas, A., Buttrum, M., Kim, S., **Boddu, V. M.**, Cheng, H. N., Microwave-assisted extraction of soluble sugars from banana puree with natural deep eutectic solvents (NADES), *LWT – Food Science and Technology*, **2019**, 107, 79-88.
20. **Boddu, V. M.**, Naismith, N.K., Patel, H. R., Environmentally Responsive Poly (N-isopropylacrylamide)-co-poly(acrylic acid) Hydrogels for Separation of Toxic Metals and Organic Explosive Compounds from Water, *J. Polymers and Environ.*, **2019**, 27, 571-580.
21. Biswas, A., Kim, S., Furtado, F. R., Alves, R. C., Buttrum, M., **Boddu, V. M.**, Cheng, H. N., Metal chloride-catalyzed acetylation of starch: Synthesis and characterization, *Intl. J. of Polymer Analysis and Characterization*, **2018**, 23, 577-589.
22. Kim, S., Biswas, A., **Boddu, V.M.**, Hwang, H., Adkins, J.E., Solubilization of cashew gum from *Anacardium occidentale* in aqueous medium, *Carbohydrate Polymers*. **2018**, 199, 205-209.
23. Biswas, A., Kim, S., Gómez, A., Buttrum, M., **Boddu, V.**, Cheng, H. N., Microwave-Assisted Synthesis of Sucrose Polyurethanes and Their Semi-interpenetrating Polymer Networks with Polycaprolactone and Soybean Oil, *Ind. Eng. Chem. Res.* 57: 3227-3234 (2018).
24. Biswas, A. Furtado, R. F., Bastos, M. D. S.R., Benavides, S. D., Oliveira, M. D. A., **Boddu, V. M.**, Cheng, H. N., Preparation and Characterization of Carboxymethyl Cellulose Films with Embedded Essential Oils. *Journal of Materials Science Research*; 7(4) 16-25 (2018).
25. Hay, W. T., Fanta, G. F., Peters, n, S. C., Thomas, A. J., Utt, K. D., Walsh, K. A., **Boddu, V. M.**, Selling, G. W., Improved hydroxypropyl methylcellulose (HPMC) films through incorporation of amylose-sodium palmitate inclusion complexes. *Carbohydrate Polymers*, 188:76-84. (2018).
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16. S. W. Maloney, **V. M. Boddu**, K. K. Phull, and O. J. Hao, *TNT Redwater Treatment by Wet Air Oxidation*, USACERL, Champaign, IL, Report Number Technical Report EP-95/01, ADA293204, 30-Nov-1994.
17. **V. M. Boddu**, S. W. Maloney, and S. A. McDonald. *Membrane Separation of Liquid Propellant XM46 for Recycle or Alternate Uses*, USACERL, Champaign, IL, Report Number Technical Report 96/93, ADB216439, 30-Aug-1994.
18. **V. M. Boddu** and S. W. Maloney. *Substitution of Orthonitrotoluene in TNT Production To Reduce Redwater*, U.S. Army, Corps of Engineers, CERL, Champaign, IL, Report Number EP-93/04, 01-May-1993.

Presentations/Publications in governmental or non-governmental professional conferences and/or symposia

1. **V.M. Boddu**, Engineering Research and Its Impact on Society, Keynote Speaker, International Workshop on “The raising and Rising of Engineering and Management Professionals,” Chaitanya Bharati Institute of Technology (CBIT), Hyderabad, India January 19, 2026.
2. **V.M. Boddu**, Per- and poly- fluorinated alkyl substances (PFAS): Occurrence, Analysis, and Mitigation, Invited Speaker, IChE-CHEMCON 78th Annual Session, Indo-US-Canada Symposium, Indian Institute of Chemical Engineers, December 27-30, 2025.
3. **V.M. Boddu**, Development and Characterization of Carbon Nanotube Reinforced Polymer Composites. Keynote Speaker, International Conference on Advances in Materials, Design and Manufacturing, ICAMDM-2025, Amaravathi, AP., December 12-14, 2025.
4. **V.M. Boddu**, Cellulose Based Polymer Hydrogels-Synthesis and Applications, IChE-CHEMCON 2024 77th Annual Session, Indian Institute of Chemical Engineers, December 27-30, 2024
5. **V.M. Boddu** and L. Brooks, Biochar and Implications on Carbon Sequestration and Climate Change, Virtual Presentation in the conference “Sustainable Green Chemical Technologies:

- Challenges & Opportunities,” CHEM-TECHNOVA 2024: held at Harcourt Butler Technical University, Kanpur, India , March 21-23, 2024.
6. **V.M. Boddu** and L. Brooks, Biomass and Municipal Solid Waste Conversion to Biochar and its Implications on Carbon Sequestration and Climate Change; AIChE Annual Meeting, San Diego, November 2024.
 7. **V.M. Boddu**, Synthesis of Carbon Nanotubes and Fabrication of Multilayer Nanocomposites, Nano4EARTH Symposium, June19- 23, 2023, Washington, DC.
<https://techconnectworld.com/World2023/sym/Nano4Earth.html>
 8. J. Morales and **V.M. Boddu**, Thermocatalytic Deactivation of Airborne Chemical and Biological Agents: Design of a Mobile Hot-Zone Deactivation (MHD) System, 2023 EPA International Decontamination Research and Development Conference, Charleston, SC, USA, Dec. 05-07, 2023.
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 9. **V.M. Boddu** and L. Brooks, Biochar and Implications on Carbon Sequestration and Climate Change, IChE- CHEMCON 2023 76th Annual Session, Indian Institute of Chemical Engineers, December 27-30, 2023.
 10. **V.M. Boddu**, Biochar Implications to Carbon Sequestration and Climate-Change, invited technical presentation at the USEPA’s Technical Support Coordination Division’s (TSCD) meeting on 25th May 2023.
 11. **V.M. Boddu**, F. Ahmad, and J. Gonzalez, Biochar from Cocoa Pod Waste: Synthesis and Characterization, Green Carbon Webinar Series, UK, Virtual Presentation, June 29th, 2023.
 12. **V. M. Boddu**, Carbon Nanotubes Synthesis and Fabrication of Multilayer Nanocomposites, Indian Institute of Chemical Engineers, CHEMCON 2022, 75th Annual Meeting, Kanpur, India, December 27 -29, 2022
 13. Lemieux, P.; Calfee, M.; Wood, J.; **Boddu, V.**; Serre, S.; Tschursin, A.; Thurman, J.; Burnette, P.; Miller, L.; Miknis, R.; Mayes, M., Assessment of Biosecurity of Using Horizontal Grinders to Enhance Composting to Improve Preparedness for African Swine Fever Virus, Presentation at 2021 EPA International Decontamination R&D Conference, Virtual Meeting, November 1-5, 2021.
 14. Lemieux, P.; Wood, J.; **Boddu, V.**; Calfee, M.; Tschursin, A.; Kaps, M.; Serre, S., EPA’s Role in Animal & Agricultural Emergency Response Activities, Presentation for Executive Veterinary Emergency Network Workshop, Virtual, September 8, 2021.
 15. **V.M. Boddu**, Glass Fiber and Carbon Nanotube Reinforced Polymer Composites, The 26th Annual Bioenvironmental Polymer Society (BEPS) 2019, Clemson, SC, June 05-06, 2019.
 16. **V.M. Boddu, et al.** The 15th International Symposium on Bioplastics, Biocomposites & Biorefining (ISBBB 2018), Using DDGS-Soy Flour Mixtures as Adhesives for Wood Composites, Guelph, Ontario, Canada, July 24-27, 2018.
 17. **V.M. Boddu, et al.** ,US Army ERDC-CRREL, Hanover, NH, on Illicit Drug Manufacturing Processes, Materials, and Environmental Impacts (POC: Mr. Jacob Ashley, Special Projects Office) (05 AUG 2014)
 18. **V.M. Boddu, et al.**, USSOUTHCOM, Guatemala City, Guatemala, Lectures on Methamphetamine (Meth) Synthesis (cooking), Chemical Safety, and Precursor Chemical Disposal were given to Guatemalan Special forces and First Responders, as part of Technical Support to the Commander of SOUTHCOM’S Country Team and Security Cooperation Office-Guatemala, (May 2014).
 19. **V.M. Boddu**, Army Research Laboratory (ARL), Aberdeen Proving Grounds, MD, On Multifunctional Carbon Nanotube - Glass Fiber Reinforced Polymer (CNT-GFRP) Composites for Improved Ballistic Resistance, POC-Dr. Travis Bogetti (March 06, 2014).
 20. **V.M. Boddu** US Department of Agriculture, Agriculture Research Service (USDA-ARS) , New Orleans, LA, Sorption of organophosphate pesticides on chitosan and other biosorbent-based metal-organic framework, (POC, Dr. Sophie Minori Uchimiya) (10 May 2011)

21. **V.M. Boddu**, US Department of Agriculture, Agriculture Research Service (USDA-ARS), Peoria, IL, Get the Fat Out! Supercritical Fluid Extraction of Pork, (POC: Dr. Jerry W. King), 08 November 1999.
22. **V.M. Boddu**, Chemical Engineering Department, University of Bath, Bath, UK, On Solubility and Nanoparticulation of CL20 with Supercritical Fluids, University of Bath, Bath, UK, (16 May 2006).
Conference presentations/Proceedings papers
23. **V. M. Boddu**, Synthesis of Carbon Nanotubes and Fabrication of Multilayer Nanocomposites, (Abstract #620), Nano4EARTH session, at TechConnect World Conference & Expo, National Harbor, MD, (June 19-21, 2023).
24. Lemieux, P., Calfee, W., Wood, J., **Boddu, V.**, Serre, S., Tschursin, A., Thurman, J., Burnette, P., Miller, L., Miknis, R., Mayes, M., Assessment of Biosecurity of Using Horizontal Grinders to Enhance Composting to Improve Preparedness for African Swine Fever Virus, *EPA Decontamination R&D Conference, November 1-5, 2021*.
25. Lemieux, P., Wood, J. **Boddu, V.**, Calfee, W., Wood, J., Tschursin, A., Kaps, M., and Calfee, W., Wood, J., Serre, S., EPA's Role in Anima & Agricultural Emergency Response Activities, Presentation for Executive Veterinary Emergency Network Workshop, September 8, 2021.
26. **Boddu, V. M.** On Utilization of Agrowastes for Biocomposites and Biochar, Annual Meeting, (Virtual Presentation), American Institute of Chemical Engineers (AIChE), November 2021.
27. Gonzalez, J. and **Boddu, V.M.**, Removal of atrazine and lead by charcoal, American Geophysical Union, 2019.
28. **Boddu, V. M.**, Kim, S., Peterson, S. C., Maness, A., Shukla, M. K., Damavarapu, R., Evaluation of Pennycress Biochar for Adsorption of Nitrophenols from Water, AIChE Conference Proceedings, Annual Meeting, November 2019, Orlando, FL.
29. Biswas, A., Kim, S., **Boddu, V.M.**, Cheng, H.N. 2018. Microwave-assisted synthesis and characterization of sucrose polyurethane and its interpenetrating polymer networks [abstract]. American Chemical Society National Meeting & Exposition, Boston, Aug. 19-23, 2018, Boston, MA.
30. N. Qureshi, H. K. O., Rogers, Klasson, K. T., **Boddu, V. M.**, Saha B. C., Liu, S. "Production of acetone butanol ethanol (ABE) from *Physaria fendleri* press cake using *Clostridium beijerinckii*. Presented at the 40th Symposium on Biotechnology for Fuels and Chemicals, Clearwater Beach, Florida, April 29-May 02, 2018.
31. J. Xu, W-C. Liu, **V. M. Boddu**, Viscoelastic properties of microfibrillated cellulose (MFC) produced from agricultural residue corn stover residue corn stover, presented at the Annual European Rheology Conference 2018, Sorrento, Italy, Apr. 16-21, 2018.
32. N. Qureshi, Klasson, K. T., **Boddu, V. M.**, Liu, S. Nichols, N. N., Saha B. C., Hugues, S. R., "Butanol biorefineries: Use of Novel technologies to produce biofuel butanol from sweet sorghum bagasse (SSB). Presented at Symposium for Biotechnology for Fuels and Chemicals, San Francisco, CA, May 1-4, 2017.
33. **V. Boddu** and G. Selling, "Improved Corn Protein (Zein) Extrusion Processing," Corn Utilization and Technology Conference, June 6th, 2016, St. Louis, MO.
34. **V. Boddu**, M. Brenner, J. Patel and A. Kumar, "Energy dissipation in carbon nanotube based nanocomposites," 12th Annual NanoTechnology for Defense Conference (**NT4D**), 17-20, November, 2014, Chantilly, VA.
35. **V. Boddu**, J. Trovillion and A. Kumar, "CNT based Nanocomposites for Force Protection," 10th Annual Nano Technology for Defense Conference (**NT4D**), 6 – 9 August 2012, Las Vegas, NV.
36. S. Chakka, C. Costales-Nieves, **V. M. Boddu**, and R. Damavarapu, "Physical properties of munitions compounds -- Chinalake-20 (CL-20), Diamino-Dinitroethylene (DADE), Cyclotetramethylenetetranitramine (HMX), and Cyclotrimethylenetrinitramine (RDX),"

- Conference Proceedings, AIChE Conference Proceedings, Annual Meeting October 2011, Minneapolis, MN.
37. **V. M. Boddu**, and S. W. Maloney. "Physical Properties of Insensitive Munitions Compounds for Developing Wastewater Treatment Technologies," Air and Waste Management Association Annual Conference, Orlando, FL. June 2011.
 38. **V. M. Boddu**, J. C. Baird, S. Naik, M. A. Stark, P. Khabra and M. E. McLeod. "Demonstration of Tar Removal from Paving Equipment and Ground Vehicles," E2S2 Symposium, New Orleans, LA, May 2011.
 39. **V. M. Boddu**, J. C. Baird, Q. Chen, C., P. Khabra, W. Ziegler and M. E. McLeod. "Environmentally Friendly Cleaners for Removing Tar and Asphalt from Tactical and Transportation Vehicles," E2S2 Symposium, New Orleans, LA, May 2011.
 40. S. Chakka, **V.M. Boddu**, C. Costales-Nieves, R. Damavarapu, "Experimental Studies on Physical Properties of Nitrotriazolene (NTO), Triaminotrinitrobenzene (TATB), Cyclotetramethylene-tetranitramine (RDX), Hexanitrohexaazoisowurtzitane (CL-20), and Diamino-Nitroethylene(DADE)," AIChE Conference Proceedings, Annual Meeting October, 2011, Minneapolis, MN.
 41. K. N. Wiles, **V. M. Boddu**, C. Costales-Nieves, and A. J. Bednar. "Degradation of Insensitive Munitions Diaminodinitroethylene (FOX-7) Using Activated Nanoparticles of MgO and ZnO," AIChE Conference Proceedings, Annual Meeting October, 2011, Minneapolis, MN.
 42. R. Halder, **V. M. Boddu**, M. S. Uchimiya, S. Kapila, A. J. Bednar and S. J. Paikoff. "Metal Organic Frameworks (MOFs) for Degradation of Nerve Agent Simulant Parathion," AIChE Conference Proceedings, Annual Meeting October, 2011, Minneapolis, MN.
 43. Myers, C., **Boddu, V.M.**, Uchimiya, M. 2011. Lipophilic super-absorbent polymer gels as surface cleaners for oil and grease. In: Proceedings of the American Institute of Chemical Engineers (AIChE) meeting, October 16-21, 2011, Minneapolis, Minnesota.
 44. **V. M. Boddu**, S. Chakka, C. Costales-Nieves, and R. Damavarapu. "Environmental behavior of explosive compound bis (2,2,2-trinitroethyl)-3,6-diaminotetrazine (BTAT)," ESTCP SERDP/ESTCP Symposium, poster presentation, Nov-Dec., 2011, Washington, DC.
 45. **V. M. Boddu**, K. N. Wiles, C. Costales-Nieves and A. J. Bednar. "Degradation of Explosive Compound FOX-7 on MgO and ZnO Nanomaterials," SERDP/ESTCP Symposium, poster presentation, Nov-Dec, 2011, Washington, DC.
 46. **V. M. Boddu**, S. W. Maloney, K. Abburi, R. Damavarapu. "Physical Properties for Developing Treatment Technologies for Water Contaminated with Insensitive Munitions Compounds," SERDP/ESTCP Symposium, poster presentation, Nov-Dec, 2011, Washington, DC.
 47. **V. M. Boddu**, W. Ziegler, T. Torres, and M. Uchimiya. "Super-Absorbent Polymer Gels for Oil and Grease Removal from Metal and Non-Metal Surfaces," SERDP/ESTCP Symposium, poster presentation, Nov-Dec, 2011, Washington, DC.
 48. M. Uchimiya, L. H. Wartelle, **V. M. Boddu**, and D. I. Bannon. "Reversible and Irreversible Sorption of Agrochemicals in Biochar Amended Soils: Synergistic Effects of Heavy Metals," Conference: Annual Meeting of Japanese Society of Soil Science and Plant Nutrition, August 8-10, 2011. Tsukuba, Japan.
 49. S. Chakka, **V. M. Boddu**, S. W. Maloney, "Prediction of Physical Properties of Energetic Materials via EPI Suite Compounds," Conference Proceedings - AIChE Conference Proceedings, Annual Meeting Nov 7-12, 2010, Salt Lake City UT.
 50. C. Costales-Nieves, **V. M. Boddu**, S. W. Maloney, S. Chakka, R. Damavarapu, and D. S. Viswanath. . "SPARC Prediction of Physical Properties of Explosive Compounds," Conference Proceedings - Refereed, AIChE Conference Proceedings, Annual Meeting Nov 7-12, 2010, Salt Lake City UT.

51. **V. M. Boddu**, D. S. Viswanath, C. Costales-Nieves, R. Damavarapu. "Experimental Studies on Physical Properties of Nitrotriazolene (NTO), Triaminotrinitrobenzene (TATB), Cyclotetramethylene-tetranitramine(RDX), Hexanitrohexaazoisowurtzitane(CL-20), and Diamino-Nitroethylene (DADE)," Conference Proceedings - Refereed, AIChE Conference Proceedings, Annual Meeting Nov 7-12, 2010, Salt Lake City UT.
52. **V. M. Boddu**, D. S. Viswanath, Y. Castaneda, C. Costales-Nieves, R. A. Kirgan, A. J. Bednar, M. Qasim. "Designer Nanomaterials: Bandgap Energy Manipulation of Mixed Metal Oxides of Magnesium and Zinc Through Sol-Gel Synthesis," 27th Army Science Conference, Orlando, FL Nov 28-Dec 02, 2010.
53. **V. M. Boddu**, A. Krishnaiah, and R. Damavarapu. "A Simple Antisolvent Phase Separation Process for Purification of RDX," New Trends in Research of Energetic Materials, Pardubice, the Czech Republic , pp. 64 -70 (01-Apr-2009).
54. D. S. Viswanath and **V. M. Boddu**. "On Significance of Thermophysical Properties of Energetic Materials," American Institute of Chemical Engineers (AIChE), Nashville, TN (8-Nov-2009).
55. S. Chakka, **V. M. Boddu**, S. W. Maloney and R. Damavarapu. "Vapor Pressures and Melting Points of Select Munitions Compounds," American Institute of Chemical Engineers (AIChE) , Nashville, TN (8-Nov-2009).
56. **V. M. Boddu**, A. J. Bednar, R. A. Kirgan, D. S. Viswanath and M. Qasim. "Degradation and Transformation Studies of 2,4-Dinitroanisole (DNAN) on Nanoparticles of Magnesium and Zinc Oxides Nanomaterials," American Institute of Chemical Engineers (AIChE) , Nashville, TN (8-Nov-2009).
57. **V. M. Boddu**, A. Krishnaiah, and R. Damavarapu. "A Simple Antisolvent Phase Separation Process for Purification of RDX," New Trends in Research of Energetic Materials, Pardubice, the Czech Republic , pp. 64 -70 (01-Apr-2009).
58. **V. M. Boddu**, J. C. Baird, P. Khabra, and W. Ziegler. "Laboratory Evaluation of Cleaners for Tar Removal from Ground Vehicles," US Army Corps of Engineers Research and Development Conference, Science and Technology: The Cornerstone for Building Strong, November 17-19, 2009, Memphis, TN.
59. **V. M. Boddu**, D. G. Worku and D. M. Crokek. "Photo-Oxidation of Acrylonitrile Using Singlet Oxygen Generated on Nanoporous Silicon," US Army Corps of Engineers Research and Development Conference, Science and Technology: The Cornerstone for Building Strong, November 17-19, 2009, Memphis, TN.
60. **V. M. Boddu**, R. K. Toghiani, P. Muthukumaran, and R. Damavarapu. "Theoretical and Experimental Studies on Nanocrystallization of Cl20 with Supercritical Fluids," Poster Presentation, US Army Corps of Engineers Research and Development Conference, Science and Technology: The Cornerstone for Building Strong, November 17-19, 2009, Memphis, TN.
61. **V. M. Boddu**, S. Chakka, S. W. Maloney, R. K. Toghiani and R. Damavarapu. "Vapor Pressures and Melting Points of Select Munitions Compounds," US Army Corps of Engineers Research and Development Conference, Science and Technology: The Cornerstone for Building Strong, November 17-19, 2009, Memphis, TN.
62. S. Chakka, **V. M. Boddu**, S. W. Maloney, and R. Damavarapu. "Prediction of physicochemical properties of energetic materials", 100th Annual AIChE Conference, Philadelphia, PA, November 2008.
63. **V. M. Boddu**, J. A. Gilmer, K. J. Hayes, and B. Hunt. "Integrated Metal Emissions Control System (IMECS™) for Army Small Arms Deactivation Furnaces," 28th International Thermal Treatment Technologies Conference, Montreal, Canada, May 2008.
64. **V. M. Boddu**, N. Naismith, H. Patel, and R.C. Flowers. "Reversible Polymer Hydrogels," 26th Army Science Conference, Orlando, FL, December, 2008.

65. **V. M. Boddu**, A. Krishnaiah, and R. Damavarapu. "Preparation of Insensitive RDX from Crude RDX using an Antisolvent Phase Separation Process," 26th Army Science Conference, Orlando, FL, December, 2008.
66. N. Sokkalingam, J. J. Potoff, **V. M. Boddu** and S. W. Maloney. "Prediction of Environmental Impact of High-Energy Materials with Atomistic Computer Simulations," 26th Army Science Conference, Orlando, FL, December, 2008.
67. **V.M. Boddu**, J. A. Gilmer, K. J. Hayes, B. Hunt, M. Downs, and L. D. Flatt. "Metal Emissions Control from Army Small Arms Deactivation Furnaces," SERDP/ESTCP Symposium, Washington, DC, December 2008.
68. **V.M. Boddu**, J. A. Gilmer, K. J. Hayes, and B. Hunt, "Integrated Metal Emissions Control System (IMECS™) for Army Small Arms Deactivation Furnaces," 28th International Thermal Treatment Technologies Conference, Montreal, Canada, May 2008.
69. **V.M. Boddu**, K. Abburi, S. W. Maloney, and R. Damavarapu. "Physicochemical Measurements on Insensitive Munitions Compound, N-Methyl-4-Nitroaniline (MNA) for Environmental Applications," AIChE Annual Conference, Salt Lake City, UT, 10-14 Nov-2007.
70. **V. M. Boddu**, R. K. Toghiani, and R. Damavarapu. "Nanoparticulation of CL20: A Feasibility Study to Produce Nanoparticles of CL20 With Supercritical Fluids," AIChE Annual Conference, Salt Lake City, UT, 13-Nov-2007.
71. **V. M. Boddu**, H. Patel, N. Naismith, and R. C. Flowers. "Copolymeric Hydrogels of Poly(Ethylene Glycol) Methylether Acrylate and N-Isopropylacrylamide for Environmental Separations," AIChE Annual Conference, Salt Lake City, UT, 10-14 Nov-2007.
72. **V. M. Boddu**, R. Damavarapu, A. J. Randolph, and J. Creamean, "Green Methodologies for Separation of Explosive Components RDX and HMX," AIChE Annual Conference, Salt Lake City, UT, 10-14 Nov-2007.
73. R. K. Toghiani, H. Toghiani, S. W. Maloney, and **V. M. Boddu**. "Assessment of Waste Treatment Technologies for Energetic Materials," AIChE Annual Conference, Salt Lake City, UT, 10-14 Nov-2007.
74. R. K. Toghiani, H. Toghiani, S. W. Maloney, and **V. M. Boddu**. "Prediction of Physicochemical Properties of Energetic Materials Design," Eleventh International Conference on Properties and Phase Equilibria for Product and Process Design, Crete, Greece, May-2007.
75. **V. M. Boddu**, E. D. Smith, and K. V. Topudurti, "Laboratory Evaluation of a Composite Chitosan Biosorbent for Treatment of Perchlorate-Contaminated Water," Paper presented in Washington DC, the (SERDP & ESTCP) Partners in Environmental Technology Symposium, November 29-December 01, 2005.
76. K. K. Krishnani, Xioaguang Meng, **V. M. Boddu**, and C. Christodoulatos. "Metal Ions Binding onto Lignocellulosic Substrate Extracted from Coconut Husk." Presented at 21st Annual International Conference on Soils, Sediments and Water, Amherst, Massachusetts, October 17-20, 2005.
77. E. D. Smith, **V. M. Boddu**, and J. C. Baird. "Evaluation of a Composite Chitosan Biosorbent for the Removal of Heavy Metals from Industrial Wastewater Streams and Groundwater," Presented at 11th International Conference on Threats to Human Health & Sustainability in the Pacific Basin: Environmental Pollutants & Climate Change, Honolulu, Hawaii, September 4-6, 2005.
78. **V. M. Boddu**, K. James Hay, and Larry Cottone, "Characterization of Lead and Cadmium Species in Emissions from Munitions Deactivation Furnace," Presented at 7th World Congress of Chemical Engineering, Glasgow, UK, 17-Jul-2005.
79. **V. M. Boddu**, E. D. Smith, T. K. Ghosh and D. S. Viswanath. "Evaluation of a composite chitosan biosorbent for the removal of hexavalent chromium from rinsewater from an army metal plating facility," Presented at 7th World Chemical Eng. Congress, Glasgow, UK, July 10-14, 2005.

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81. **V. M. Boddu**, J. A. Gilmer, and K. J. Hay. "Metal Emissions Control from Army Small Arms Deactivation Furnaces," Presented at the 24th International Conference on Thermal Treatment Technologies, Galveston, Texas, May 9-13, 2005.
82. **V. M. Boddu**, J. A. Gilmer, and K. J. Hay. "Laboratory Evaluation of Stainless Steel Filters for Control of Particle Emissions from Combustion Sources", SERDP/ESTCP, Washington, DC, USA, 01-Dec-2004.
83. **V. M. Boddu**, R. K. Toghiani, and R. Damavarapu, "Solubility and Phase Behavior Of CL20 and RDX In Supercritical Carbon Dioxide," Presented at the 24th, Army Science Conference, Orlando, FL, December, 2004.
84. **V. M. Boddu**, P. Muthukumar, and R. Damavarapu. "Nanoparticulation of CL20: A Feasibility Study to Produce Nanoparticles of CL20 with Supercritical Fluids," In Proceedings of the 24th Army Science Conference, Orlando, FL, December, 2004.
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86. **V. M. Boddu**, K. J. Hay, T. K. Ghosh, and D. S. Viswanath, "Adsorption of Lead Vapors on Modified Perlites," Presented at the Real World Air Symposium 2003, Seattle WA, May, 2003.
87. K. J. Hay, **V. M. Boddu**, J. A. Cooper, and B. E. Johnsen. "Demonstration of A Multi-Metal Continuous Emissions Monitor," Presented at the Real World Air Symposium 2003, Seattle, WA, May 2003.
88. **V. M. Boddu** and E. D. Smith. "A Composite Chitosan Biosorbent for Adsorption of Heavy Metals from Wastewaters." Presented at the 23rd Army Science Conference, Orlando, FL, December 2002.
89. **V. M. Boddu**, K. J. Hay, T. K. Ghosh, and D. S. Viswanath. "Adsorption of Lead Vapors Using Perlite," Presented at the 23rd Army Science Conference, Orlando, FL, December, 2002.
- V. M. Boddu**, "Acid Pickling Batch Management with Diffusion Dialysis." Presented at NDIA P2 Conference, San Antonio, TX, August, 2002.
91. V. M. Boddu and E. D. Smith. "Development of Biosorbent Technology for Army Aqueous Waste Streams Containing Heavy Metals," Presented at NDIA P2 Conference, San Antonio, TX, August, 2002.
92. **V. M. Boddu**, E. D. Smith, S. Hasan, T. K. Ghosh, and D. S. Viswanath. "Treatment of Heavy Metals Contaminated Industrial Waste Waters," Presented at AIChE Annual Meeting, Reno, Nevada, November 4-9, 2001.
93. S. Hasan, T. K. Ghosh, D. S. Viswanath, **V. M. Boddu** and E. D. Smith. "Adsorption of Chromium (III) and (VI) on Chitosan Based Bio-inorganic Material." Presented at the Separation Science Symposium at Oak Ridge, TN, October, 2001.
94. E. D. Smith and **Boddu, V. M.**, "Development of Biosorbent Technology for Army Aqueous Waste Streams Containing Heavy Metals," Pocono, PA, August, 2001.
95. **V. M. Boddu**, E. D. Smith, and G. Nano. "Adsorption of Arsenic (III), Arsenic (V) and Lead (II) on A New Composite Chitosan Biosorbent," Proceedings of ASCE World Water & Environmental Resources Congress, Orlando, FL, May 20-24, 2001.
96. **V. M. Boddu** and Smith, E. D. "Development of Biosorbent Technology for Army Aqueous Waste Streams Containing Heavy Metals," Proceedings of the 27th Environmental Symposium, National Defense Industrial Association, Austin, TX, 23-Apr-2001.
97. **V. M. Boddu**, E. D. Smith, and G. Nano. Nano. "Removal of Arsenic (III), Arsenic (V), Lead (II) and Mercury (II) from Drinking Water Using a Composite Chitosan Biosorbent" Univ. of Illinois Engineers' Week, and J. B. Taylor Research Foundation Grant, University of Illinois, March 2001

98. **V. M. Boddu**, E. D. Smith, and K. Abburi. "A New Composite Biosorbent for Treatment of Heavy Metals Contaminated Waste Streams," Paper presented at the AIChE National Conference, Los Angeles, CA, November 2000.
99. **V. M. Boddu**, S. W. Maloney, and D. S. Viswanath. "Preparation and Evaluation of Ultrafine Magnesium and Zinc Oxides for Adsorption and Decomposition of 2,4-Dinitrotoluene," Environmental Horizons 2000 Poster Presentation 31-Mar-2000.
100. **V. M. Boddu**, E. D. Smith, and N. Wongthipkongka. "Development of Composite Biosorbents for Treatment of Heavy Metal Contaminated Wastestreams," Environmental Horizons 2000, University of Illinois, Urbana-Champaign 28-Mar-2000.
101. **V. M. Boddu**, D. S. Viswanath and S. W. Maloney. "Preparation and Evaluation of Ultrafine Magnesium and Zinc Oxides for Adsorption and Decomposition of 2,4-dinitrotoluene," AIChE National Meeting in Dallas, TX, November 1999.
102. **V. M. Boddu** and E. D. Smith. "Preparation and Evaluation of Biosorbents for Treatment of Heavy Metal Contaminated Wastestreams," Presented at the Second Annual Western Environmental Technology Workshop at Alta, Utah, August 2-4, 1999.
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