

Dr. John G. Groppo, Jr.
Professor of Mining Engineering
Affiliate Faculty, Center for Applied Energy Research
University of Kentucky
234F MMRB, 504 Rose St., Lexington, KY 40506
Tel: 859-31701000 Email: jjohn.groppo@uky.edu

Professional Preparation

Virginia Tech	Blacksburg, VA	Mining and Minerals Engineering	B.S.	1979
Virginia Tech	Blacksburg, VA	Mining and Minerals Engineering	M.S.	1982
University of Kentucky	Lexington, KY	Mining Engineering	PhD	1992

Appointments

2016-present Professor, University of Kentucky, Mining Engineering Department, Lexington, KY
Affiliated Faculty, Univ. of KY Center for Applied Energy Research, Lexington, KY

2013-2016: Director, Kentucky Energy Club, University of Kentucky, Lexington, KY

1985-2016: Senior Engineer/Program Manager, University of Kentucky, Center for Applied Energy Research, Lexington, KY

1982-1985: Mineral Processing Engineer, American Cyanamid Company, Stamford Research Laboratory, Stamford, CT

1981-1982: Graduate Research Assistant, Virginia Tech, Mining and Minerals Engineering Department, Blacksburg, VA

1980-1981: Mineral Processing Engineer, North Carolina State University, Minerals Research Laboratory, Asheville, NC

Products

Selected Relevant Publications

Groppo, J., “An Introduction to the Nature of Coal”, In Coal Combustion Products (CCP's): Characteristics, Utilization and Beneficiation”, R. Jones et al. Eds., Elsevier, London, pp. 3-18, 2017.

Wilson, M., Mohler, D., **Groppo, J.**, Grubbs, T., Kesner, S., Shea, A., Crofcheck, C. and Crocker, M., “Capture and Recycle of Industrial CO₂ Emissions using Microalgae”, 5th KOPRC Forum Special Publication: “The Continuing Role of Fossil Fuels in the Transformation to a Sustainable Energy Future”, Applied Petrochemical Research, 6(3), 279-293, 2016, DOI 10.1007/s13203-016-0162-1.

Hood, M.M., **Groppo, J.G.**, Johnston, M.N., Hower, J.C., Clack, H.C., de Medeiros, D.S., Taffarel, S.R., Cutruneo, C.M.N.L., Silva, L.F.O. "Influence of coal-fired power plant emissions regulations and consequent engineering controls and coal-supply modifications on fly ash chemistry and petrology: Examples from Kentucky power plants," Coal Combustion & Gasification Products, 8, 8-18, 2016.

Zhang, W., Rezaee, M., Bhagavatula, A., Li, Y., **Groppo, J.** and Honaker, R., “A Review of the Occurrence and Promising Recovery Methods of Rare Earth Elements from Coal and Coal Byproducts”, Intl. J. of Coal Preparation and Utilization, Vol. 35 (6), pp. 295-330, 2015.

Groppo, J., “Coal Combustion Waste Materials”, Conversion of Large-Scale Wastes into Value-added Products, J.S.J. Hargreaves, et. al. Eds., CRC Press, Taylor and Francis Group, Boca Raton, FL, pp. 69-105, 2013.

Selected Relevant Patents

Method for Hydraulically Separating Carbon and Classifying Coal Combustion Ash, T. L. Robl and **J.G. Groppo**, U.S. Patent No. 7,963,398, June 21, 2011.

Method and System for Beneficiating Gasification Slag, C.E. Price, W.L. Barnwell and **J.G. Groppo**, U.S. Patent No. 7,328,805, Feb. 12, 2008.

Technology and Methodology for the Production of High Quality Polymer Filler and Super-Pozzolan from Fly Ash, T.L. Robl and **J.G. Groppo**, U.S. Patent No. 6,533,848, March 18, 2003.

Method for Improving the Pozzolanic Character of Fly Ash, **J.G. Groppo**, T.L. Robl and C.J. McCormick, U.S. Patent No. 5,817,230, Oct. 6, 1998.

Method of Removing Carbon From Fly Ash, **J.G. Groppo** and S.M. Brooks, U.S. Patent No. 5,456,363, Oct. 10, 1995.

Synergistic Activities

Co-creator of sustainable campus electronics recycling program at the University of Kentucky, a unique student led activity that combines community service, educational outreach, and formal classroom instruction to recycle obsolete personal electronics.

Developer of Center for Applied Energy Research 'Energy 101' education outreach for local underserved elementary schools providing synergistic energy education with hands-on demonstrations in the classroom.

Faculty Advisor for University of Kentucky Society of Mining Engineers Student Chapter, an award winning organization focused on community outreach, service, and student professional development.

Advisor and Mentor for numerous multi-disciplinary capstone and senior design projects that engage students in various aspects of energy development and utilization. Disciplines served include Architecture, Interior Design, Mechanical Engineering, Electrical Engineering, STEM Education and Art.

Developed short course to increase understanding of scientific aspects pertaining to coal utilization byproducts. This course is now offered annually to serve broad audiences interested in the subject of beneficial use.