

Biographical Sketch

Rick Q. Honaker
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(a) Professional Preparation

Virginia Tech	Blacksburg, VA	Mining Engr	B.S. 1986
Virginia Tech	Blacksburg, VA	Minerals Engr	M.S. 1988
Virginia Tech	Blacksburg, VA	Minerals Engr.	Ph.D. 1992

(b) Appointments

7/06 – Present	Professor, University of Kentucky, Lexington, Kentucky
9/07 – 6/17	Chair, Mining Engineering Department, Lexington, Kentucky
1/00 – 6/06	Associate Professor, University of Kentucky, Lexington, Kentucky
4/97 – 12/99	Associate Professor, Southern Illinois University, Carbondale, Illinois
8/92 – 4/97	Assistant Professor, Southern Illinois University, Carbondale, Illinois
8/91 - 8/92	Instructor, Southern Illinois University, Carbondale, Illinois
9/90 - 7/91	Research Associate, Virginia Tech, Blacksburg, Virginia
4/89 - 8/90	Graduate Project Assistant, Virginia Tech, Blacksburg, Virginia
6/86 - 4/89	Graduate Research Assistant, Virginia Tech, Blacksburg, Virginia
6/85 - 9/85	Project Engineer, Inspiration Coal Company, Knoxville, Tennessee

(c) Products

- i. Zhang, W. and Honaker, R.Q., 2019, "Enhanced Leachability of Rare Earth Elements from Calcined Products of Bituminous Coals," *Minerals Engineering*, 142, <https://doi.org/10.1016/j.mineng.2019.105935>.
- ii. Dube, R. and Honaker, R.Q., 2019, "Improving the Flotation Performance of an Oxidized Bituminous Coal Source," *Minerals Engineering*, 142, <https://doi.org/10.1016/j.mineng.2019.105937>.
- iii. Honaker, R.Q., Zhang, W., Werner, J., Noble, A., Luttrell, G.H. and Yoon, R.-H., 2020, "Enhancement of a Process Flowsheet for Recovering and Concentrating Critical Materials from Bituminous Coal Sources," *J. Mining, Metallurgy and Exploration*, Volume 37, Issue 1, pp. 3–20; <http://link.springer.com/article/10.1007/s42461-019-00148-x>, DOI 10.1007/s42461-019-00148-x.
- iv. Huang, Q., Yang, X. and Honaker, R.Q., 2019, "Evaluation of Frother Types for Improved Flotation Recovery and Selectivity," *Minerals* 9(10), 590; <https://doi.org/10.3390/min9100590>. W*
- v. Zhang, W. and Honaker, R.Q., 2020, "Characterization and Recovery of Rare Earth Elements and Other Critical Metals (Co, Cr, Li, Mn, Sr, and V) from the Calcination Products of a Coal Refuse Sample," *Fuel*, 267, 117236. W*

- vi. Rezaee, M. and Honaker, R., 2020, "Long-term Leaching Characteristic Study of Coal Processing Waste Streams," *Chemosphere*, Volume 249, <https://doi.org/10.1016/j.chemosphere.2020.126081>. W*
- vii. Zhang, W., Noble, A., Yang, X., and Honaker, R.Q., 2020, "Lithium Leaching recovery and Mechanisms from Density Fractions of an Illinois Basin Bituminous Coal," *Fuel*, 268, 117319. W*
- viii. Zhang, W. and Honaker, R.Q., 2020, "Process Development for the Recovery of Rare Earth Elements and Critical Metals from an Acidic Mine Leachate," *Minerals Engineering*, 153, <https://doi.org/10.1016/j.mineng.2020.106382>. W*
- ix. Zhang, W., Noble, A., Yang, X., and Honaker, R.Q., 2020. "A Comprehensive Review of Rare Earth Elements Recovery from Coal-Related Materials," *Minerals* 2020, 10(5), 451; <https://doi.org/10.3390/min10050451>. W*
- x. Xinbo, Y. and Honaker, R.Q., 2020. "Leaching Kinetics of Rare Earth Elements from Fire Clay Seam Coal," *Minerals*, 10(6), 491; <https://doi.org/10.3390/min10060491>.

(d) Synergistic Activities

- i. Member of the Board of Directors for the Society for Mining, Metallurgy and Exploration (2018 – 2021)
- ii. Engineering Accreditation Commissioner for ABET (2018 – 2023)
- iii. Member of the Executive Board of the Coal Preparation Society of America (2008 – Present)
- iv. Chair of the Structure and Governance Strategic Committee for the Society for Mining, Metallurgy and Exploration (2018-2021)
- v. Honaker, R.Q. (PI), Demonstration of Scaled-Production of Rare Earth Oxides and Critical Materials from Coal-Based Sources using Innovative, Low Cost Process Technologies and Circuits, U.S. Department of Energy/National Energy Technology Laboratory, Project No. DE-FE0031827, October 1, 2019 – March 31, 2022; Total Project Value = \$6.25 million; Agency Share = \$5,000,000; 100% involvement.

(e) Thesis Advisor and Postgraduate Scholar Sponsors over the Last Five Years:

Mohammad Rezaee, Assistant Professor, Penn State
 Qingqing Huang, Assistant Professor, West Virginia University
 Wencai Zhang, Assistant Professor, Virginia Tech
 Chen, Jinxiang, Project Engineer, Clean Carbon
 Abraham Nj, Ph.D. Student, UK Mechanical Engineering
 Yang, Xinbo, Assistant Research Professor, UK Mining Engineering
 Chandra, Alind, Senior Process Engineer, MP Materials