
















## Colorado School of Mines Grant and Contract Funding from U.S. Government Sources

### in Fields Related to Minerals, Mining and Processing

Program ID	Mines PI	Funding Source	Subject	Funding Amount	Initiation Date	Closure Date	Status	Mines Unit or Center Lead	Mines Department Lead
<a href="#">401938</a> <a href="#">Corby Anderson</a>	Ames Laboratory		Improvements to Cobalt Beneficiation from Domestic Ores at the Iron Creek Deposit, central Idaho	\$596,005.00	3/10/2021	6/30/2023	Active	Critical Materials Institute	
<a href="#">401987</a> <a href="#">Patrick Taylor</a>	Ames Laboratory		Gallium, Indium, and Germanium Extraction from Zinc Residue Produced for Steel Wastes	\$300,000.00	7/1/2021	6/30/2023	Active	Critical Materials Institute	
<a href="#">401392</a> <a href="#">Roderick Eggert</a>	Ames Laboratory		CMI: 4.3.12 Impact of Research on Global Material Supply Chains	\$345,050.99	7/31/2018	6/30/2023	Active	Critical Materials Institute	
<a href="#">402060</a> <a href="#">Gregory Clough</a>	Department of State		Critical Minerals Training and Learning Opportunities for African Ministries of Mines	\$154,050.00	9/23/2021	9/30/2023	Active		Payne Institute
<a href="#">402503</a> <a href="#">Ge Jin</a>	DOE - Advanced Research Projects Agency Energy - ARPA-E		Integrated Electro-Hydraulic Fracturing and Real-Time Monitoring for Carbon Negative In-Situ Mining	\$2,197,721.00	5/5/2023	5/4/2026	Pending Setup	Reservoir Characterization Project (RCP)	Geophysics
<a href="#">401864</a> <a href="#">Mark Jensen</a>	DOE - Nuclear Energy		Controlling Neptunium and Zirconium in Advanced Extraction Processes	\$494,763.00	10/1/2020	9/30/2024	Active	Nuclear Science and Engineering Center (NuSEC)	
<a href="#">402057</a> <a href="#">Mark Jensen</a>	DOE - Office of Science		Driving Selectivity Among Rare Earth Elements through Phase Modifiers	\$914,280.00	9/1/2021	8/31/2023	Active		Chemistry

	<a href="#">402406</a> <a href="#">Thomas Schoenzart</a>	Florida State University	Evaluation of Magnetic Field Driven Rare Earth Separation	\$99,339.00	10/1/2022	3/28/2023	Review for Closeout	Chemistry
	<a href="#">402066</a> <a href="#">Rennie Kaunda</a>	Michigan Technical University	Mine Health and Safety Big Data Analysis and Text Mining by Machine Learning Algorithms	\$142,692.00	9/1/2021	8/31/2023	Active	Mining Engineering
	<a href="#">402059</a> <a href="#">Hugh Miller</a>	Mine Safety and Health Administration - MSHA	EVALUATING THE USE OF ENERGY-BASED HAZARD RECOGNITION TRAINING IN MINING	\$95,000.00	9/30/2021	9/29/2022	Review for Closeout	Mining Engineering
	<a href="#">402021</a> <a href="#">Andrew Petruska</a>	National Institute for Occupational Safety & Health	Machine Learning Enhanced Perception for Automated or Remote Roof Bolting Operations in Underground Mining	\$604,737.00	9/1/2021	8/31/2024	Active	Mechanical Engineering
	<a href="#">401661</a> <a href="#">Jamal Rostami</a>	National Institute for Occupational Safety & Health	IMPROVING HEALTH AND SAFETY OF MINING OPERATIONS THROUGH DEVELOPMENT OF THE SMART BIT CONCEPT FOR AUTOMATION OF MECHANICAL ROCK EXCAVATION UNITS AND DUST MITIGATION	\$999,044.00	9/16/2019	9/12/2023	Active	Mining Engineering
	<a href="#">401660</a> <a href="#">Sebnem Duzgun</a>	National Institute for Occupational Safety & Health	Digital Technologies Improve Mine Safety and Health	\$1,243,979.00	9/13/2019	9/12/2024		Mining Engineering
	<a href="#">402015</a> <a href="#">Corby Anderson</a>	NSF - National Science Foundation	IUCRC Phase III Colorado School of Mines: Center for Resource Recovery & Recycling (CR3)	\$100,000.00	8/15/2021	7/31/2026	Active	Kroll Institute for Extractive Metallurgy (KIEM)
	<a href="#">402056</a> <a href="#">Elizabeth Holley</a>	NSF - National Science Foundation	Collaborative Research: GCR: Responsible Critical Elements: Transforming Earth Resource Development for a Carbon-Neutral Future	\$1,076,386.00	10/1/2021	9/30/2026	Active	Mining Engineering
	<a href="#">401308</a> <a href="#">Juan Lucena</a>	NSF - National Science Foundation	PIRE: Sustainable Communities & Gold Supply Chains: Integrating Responsible Engineering & Local Knowledge to Design, Implement & Evaluate Sustainable Artisanal Mining in Latin America	\$3,878,858.00	1/1/2018	12/31/2023	Active	Engineering, Design and Society

	<a href="#">401641</a> <a href="#">Nicole Smith</a>	NSF - National Science Foundation	ISN2: Mapping, Modeling, and Optimizing the Disruption of Illicit Gold Supply Chains in Peru	\$673,754.00	1/1/2020	12/31/2023	Active	Mining Engineering
	<a href="#">401929</a> <a href="#">Nicole Smith</a>	NSF - National Science Foundation	D-ISN: TRACK 1: Understanding and Disrupting Key Convergence Nodes of the Illicit Gold and Mercury Supply Chains in Latin America and Africa	\$1,000,000.00	2/15/2021	1/31/2026	Active	Mining Engineering
	<a href="#">401978</a> <a href="#">Rennie Kaunda</a>	NSF - National Science Foundation	IRES Track I: Rapid, Integrated Geotechnical and Geochemical Characterization of Mine Waste for Phytoremediation and Biofuel/Bioenergy Production	\$133,944.00	7/1/2021	6/30/2024	Active	Mining Engineering
	<a href="#">402412</a> <a href="#">Roderick Eggert</a>	NSF - National Science Foundation	Conference: Critical Materials and Clean Sustainable Energy - A Square Table Workshop	\$129,105.00	12/1/2022	8/31/2023	Active	Critical Materials Institute
	<a href="#">401468</a> <a href="#">Thomas Monecke</a>	NSF - National Science Foundation	Phase I IUCRC Colorado School of Mines: Center to Advance the Science of Exploration to Reclamation in Mining	\$2,205,791.00	9/1/2018	8/31/2024	Active	New: Center to Advance the Science of Exploration to Reclamation in Mining
	<a href="#">401984</a> <a href="#">Morgan Bazilian</a>	Rocky Mountain Institute	Coalition on Materials Emissions Transparency (COMET) Framework	\$25,000.00	8/5/2021	2/4/2022	Review for Closeout	Payne Institute
	<a href="#">450634</a> <a href="#">Juergen Brune</a>	University of California - Los Angeles	The Effect of Coal and Mine Respirable Dust Size on Lung Cells and Exposure Assessment	\$28,082.00	11/7/2020	8/31/2023	Active	Mining Engineering
	<a href="#">450733</a> <a href="#">Dorit Hammerling</a>	University of Texas - Austin	EEMDL: Energy Emissions Modeling and Data Lab	\$517,737.00	12/1/2022	11/30/2023	Active	Payne Institute
	<a href="#">450645</a> <a href="#">Carl Frick</a>	University of Wyoming	The impact of coal derived reinforcements and fillers (as produced and surface treated) on improving the properties of high demand composite material matrix materials	\$93,819.00	12/1/2021	6/30/2023	Active	Mechanical Engineering

	<a href="#">402081</a> <a href="#">Patrick Taylor</a>	University of Wyoming	Generation of Rare Earth Metals from Rare Earth Oxides by Using Microwave Plasma	\$149,999.00	9/1/2021	12/31/2023	Active	Kroll Institute for Extractive Metallurgy (KIEM)	
	<a href="#">401966</a> <a href="#">Matthew Morgan</a>	US Geological Survey - USGS	Inventory of Tallahassee Creek Uranium Exploration Data and Digitization of Colorado Historic Nonmetallic Mining Location and Geological Maps for Critical Mineral Resources	\$23,598.14	6/1/2021	5/31/2022	Review for Closeout		Colorado Geological Survey (CGS)
	<a href="#">402159</a> <a href="#">Matthew Morgan</a>	US Geological Survey - USGS	Inventory of Historic Mineral Resource Reports, Gold Deposit and Geologic Map Conversion, Geotechnical Report Scanning, and Imaging of a Denver Basin Core Library	\$204,986.00	6/1/2022	5/31/2023	Review for Closeout		Colorado Geological Survey (CGS)
	<a href="#">402341</a> <a href="#">Michael Okeeffe</a>	US Geological Survey - USGS	Reconnaissance Investigation of Critical Minerals in Mine Waste, Colorado	\$276,642.00	9/5/2022	9/4/2024	Active		Colorado Geological Survey (CGS)
	<a href="#">402045</a> <a href="#">Thomas Monecke</a>	US Geological Survey - USGS	CASERM: IOCG deposits of the Idaho Cobalt Belt: Integrating Mineralogical Data Across Scales and Implications for Geophysical Exploration	\$40,000.00	9/1/2021	8/31/2022	Review for Closeout		Geology and Geological Engineering
	<a href="#">402340</a> <a href="#">Thomas Monecke</a>	US Geological Survey - USGS	Continuation or Additional Sampling IOCG deposits of the Idaho Cobalt Belt: Integrating Mineralogical Data Across Scales and Implications for Geophysical Exploration	\$60,000.00	9/1/2022	8/31/2023	Active		Geology and Geological Engineering
	<a href="#">402483</a> <a href="#">Thomas Monecke</a>	US Geological Survey - USGS	Critical minerals in volcanogenic massive sulfide, low sulfidation epithermal, sediment hosted Cu, and sedimentary exhalative Zn deposits: Case studies from AZ, WI, ID, MT, and AK	\$60,000.00	8/15/2023	8/14/2024	Pending Setup		Geology and Geological Engineering