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Education Information

Post Doctorate, Suleyman Demirel University, Mühendislik Fakültesi, Maden Mühendisliği Bölümü, Turkey 2015 - 2016

Postgraduate, Rawenshaw University, Life Sciences, Biotechnology, India 2009 - 2010

Dissertations

Doctorate, Biotechnological application of some selected microorganisms for extraction of copper from low grade ore, University of Delhi, Life Science , Biotechnology, 2015

Research Areas

Mining Engineering and Technology, Ore-Dressing, Chemical-Biological Winning Techniques and Mineral Processing, Engineering and Technology

Academic Titles / Tasks

Assistant Professor, Suleyman Demirel University, Engineering Faculty, Mineral Processing Division, 2018 - Continues

Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- I. **Biotechnological trends and market impact on the recovery of rare earth elements from bauxite residue (red mud) - A review**
PANDA S., Costa R. B. , Shah S. S. , MISHRA S., Bevilaqua D., Akcil A.
RESOURCES CONSERVATION AND RECYCLING, vol.171, 2021 (Journal Indexed in SCI)
- II. **Catalytic Effect of Graphite Promoting Zn Dissolution from Sphalerite using a Leptospirillum ferrooxidans Dominated Mixed Culture**
Ghobadi S., Mehrabani J. V. , PANDA S.
GEOMICROBIOLOGY JOURNAL, 2021 (Journal Indexed in SCI)
- III. **Hydrometallurgical recycling strategies for recovery of rare earth elements from consumer electronic scraps: a review**
Akci A., Ibrahim Y. A. , Meshram P., PANDA S., Abhilash A.
Journal of Chemical Technology and Biotechnology, vol.96, no.7, pp.1785-1797, 2021 (Journal Indexed in SCI)
- IV. **A novel approach based on solvent displacement crystallisation for iron removal and copper recovery from solutions of semi-pilot scale bioleaching of WPCBs**

Erust C., Akcil A., TUNCUK A., DEVECİ H., YAZICI E. Y. , PANDA S.

JOURNAL OF CLEANER PRODUCTION, vol.294, 2021 (Journal Indexed in SCI)

- V. **Securing supplies of technology critical metals: Resource recycling and waste management**
PANDA S., Akcil A.
WASTE MANAGEMENT, vol.123, pp.48-51, 2021 (Journal Indexed in SCI)
- VI. **Techno-economic Analysis of Boric Acid Production from Colemanite Mineral and Sulfuric Acid**
GÖNEN M., Rodene D. D. , PANDA S., Akcil A.
MINERAL PROCESSING AND EXTRACTIVE METALLURGY REVIEW, 2021 (Journal Indexed in SCI)
- VII. **Preface**
Ksibi M., Ghorbal A., Chakraborty S., Chaminé H. I. , Barbieri M., Guerriero G., Hentati O., Negm A., Lehmann A., Römbke J., et al.
Environmental Science and Engineering, 2021 (Journal Indexed in SCI Expanded)
- VIII. **COVID-19 disruptions to tech-metals supply are a wake-up call Comment**
Akcil A., Sun Z., PANDA S.
NATURE, vol.587, no.7834, pp.365-367, 2020 (Journal Indexed in SCI)
- IX. **Microalgal potential for nutrient-energy-wastewater nexus: Innovations, current trends and future directions**
PANDA S., MISHRA S., Akcil A., KÜÇÜKER M. A.
ENERGY & ENVIRONMENT, 2020 (Journal Indexed in SSCI)
- X. **Intensified acidophilic bioleaching of multi-metals from waste printed circuit boards (WPCBs) of spent mobile phones**
Erust C., Akcil A. U. , TUNCUK A., PANDA S.
Journal of Chemical Technology and Biotechnology, vol.95, no.8, pp.2272-2285, 2020 (Journal Indexed in SCI Expanded)
- XI. **Acidophilic biodesulphurization of calcined pet coke and coal samples in iron and iron-free leaching media**
Mishra S., PANDA S., Pradhan N., Biswal S. K. , Satapathy D.
ENERGY & ENVIRONMENT, 2020 (Journal Indexed in SSCI)
- XII. **Magnetic separation of ferrous fractions linked to improved bioleaching of metals from waste-to-energy incinerator bottom ash (IBA): a green approach**
PANDA S.
ENVIRONMENTAL SCIENCE AND POLLUTION RESEARCH, vol.27, no.9, pp.9475-9489, 2020 (Journal Indexed in SCI)
- XIII. **A Comparative Assessment on the Effect of Different Supplemental Iron Sources on the Bio-dissolution of Zn, Pb, Cd, and As from a High-grade Zn-Pb Ore**
Ghassa S., Abdollahi H., Najafi E., Boroumand Z., PANDA S., Akcil A.
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- XIV. **Acidophilic bioleaching: A Review on the Process and Effect of Organic–inorganic Reagents and Materials on its Efficiency**
JAFARI M., ABDOLLAHI H., SHAFAEI S. Z. , GHARABAGHI M., JAFARI H., Akcil A. U. , PANDA S.
Mineral Processing and Extractive Metallurgy Review, vol.40, no.2, pp.87-107, 2019 (Journal Indexed in SCI)
- XV. **Biotechnological strategies for the recovery of valuable and critical raw materials from waste electrical and electronic equipment (WEEE) - A review**
Isildar A., van Hullebusch E. D. , Lenz M., Du Laing G., Marra A., Cesaro A., PANDA S., Akcil A., Kucuker M. A. , Kuchta K.
JOURNAL OF HAZARDOUS MATERIALS, vol.362, pp.467-481, 2019 (Journal Indexed in SCI)
- XVI. **Prediction and Optimization of Bioleaching of Molybdenite Concentrate by Using Artificial Neural Networks (ANN) and Genetic Algorithm (GA).**
PANDA S.
MINERALS ENGINEERING, pp.24-35, 2019 (Journal Indexed in SCI)
- XVII. **Prediction and optimization studies for bioleaching of molybdenite concentrate using artificial**

neural networks and genetic algorithm

Abdollahi H., Noaparast M., Shafaei S. Z. , Akcil A., PANDA S., Kashi M. H. , Karimi P.
MINERALS ENGINEERING, vol.130, pp.24-35, 2019 (Journal Indexed in SCI)

- XVIII. Effect of Span-80 and ultrasonication on biodesulphurization of lignite by Rhodococcus erythropolis: Lab to semi-pilot scale tests**
MISHRA S., Akcil A. U. , PANDA S., TUNCUK A.
MINERALS ENGINEERING, vol.119, pp.183-190, 2018 (Journal Indexed in SCI)
- XIX. Biodesulphurization of Turkish lignite by Leptospirillum ferriphilum: Effect of ferrous iron, Span-80 and ultrasonication**
MISHRA S., Akcil A., PANDA S., Ernst C.
HYDROMETALLURGY, vol.176, pp.166-175, 2018 (Journal Indexed in SCI)
- XX. Laboratory and Semipilot Bioreactor Feasibility Tests for Desulphurization of Turkish Lignite using Leptospirillum ferriphilum**
MISHRA S., Akcil A. U. , PANDA S., AĞCASULU İ.
ENERGY & FUELS, vol.32, no.3, pp.2869-2877, 2018 (Journal Indexed in SCI)
- XXI. A novel bioreactor system for simultaneous multi-metal leaching from industrial pyrite ash: Effect of agitation and sulphur dosage**
PANDA S., Akcil A., MISHRA S., ERUST C.
JOURNAL OF HAZARDOUS MATERIALS, vol.342, pp.454-463, 2018 (Journal Indexed in SCI)
- XXII. Recent advances in indium metallurgy: A review**
PRADHAN D., PANDA S., SUKLA L. B.
MINERAL PROCESSING AND EXTRACTIVE METALLURGY REVIEW, vol.39, no.3, pp.167-180, 2018 (Journal Indexed in SCI)
- XXIII. Insights into DBT biodegradation by a native Rhodococcus strain and its sulphur removal efficacy for two Indian coals and calcined pet coke**
Mishra S., Panda S., Pradhan N., Satapathy D., Biswal S. K. , Mishra B. K.
INTERNATIONAL BIODETERIORATION & BIODEGRADATION, vol.120, pp.124-134, 2017 (Journal Indexed in SCI)
- XXIV. Synergistic effect of biogenic Fe³⁺ coupled to S degrees oxidation on simultaneous bioleaching of Cu, Co, Zn and As from hazardous Pyrite Ash Waste**
PANDA S., Akcil A. U. , MISHRA S., ERUST C.
JOURNAL OF HAZARDOUS MATERIALS, vol.325, pp.59-70, 2017 (Journal Indexed in SCI)
- XXV. Biodegradation of dibenzothiophene and its application in the production of clean coal**
MISHRA S., PRADHAN N., PANDA S., Akcil A. U.
FUEL PROCESSING TECHNOLOGY, vol.152, pp.325-342, 2016 (Journal Indexed in SCI)
- XXVI. Reactor and column leaching studies for extraction of copper from two low grade resources: A comparative study**
Panda S., Mishra G., Sarangi C. K. , Sanjay K., Subbaiah T., Das S. K. , Sarangi K., Ghosh M. K. , Pradhan N., Mishra B. K.
HYDROMETALLURGY, vol.165, pp.111-117, 2016 (Journal Indexed in SCI)
- XXVII. Current scenario of chalcopyrite bioleaching: A review on the recent advances to its heap-leach technology**
Panda S., Akcil A., Pradhan N., DEVECİ H.
Bioresource Technology, vol.196, pp.694-706, 2015 (Journal Indexed in SCI Expanded)
- XXVIII. Sequential bioreduction-bioleaching and bioreduction-chemical leaching hybrid tests for enhanced copper recovery from a concentrator ball mill reject sample**
PANDA S., ESTHER J., BHOTRA T., PRADHAN N., SUKLA L. B. , MISHRA B. K. , Akcil A. U.
HYDROMETALLURGY, vol.157, pp.171-177, 2015 (Journal Indexed in SCI)
- XXIX. Enhanced recovery of nickel from chromite overburden (COB) using dissimilatory Fe (III) reducers: A novel Bio-Reduction Acid Leaching (BRAL) approach**
Esther J., Panda S., Sukla L. B. , Pradhan N., Sarangi C. K. , Subbaiah T.
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- XXX. Extraction of copper from copper slag: Mineralogical insights, physical beneficiation and bioleaching**

studies

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KOREAN JOURNAL OF CHEMICAL ENGINEERING, vol.32, no.4, pp.667-676, 2015 (Journal Indexed in SCI)

- XXXI. **Reductive dissolution by waste newspaper for enhanced meso-acidophilic bioleaching of copper from low grade chalcopyrite: A new concept of biohydrometallurgy**
PANDA S, BISWAL A, MISHRA S, PANDA P. K. , PRADHAN N, MOHAPATRA U, SUKLA L. B. , MISHRA B. K. , Akcil A. U.
HYDROMETALLURGY, vol.153, pp.98-105, 2015 (Journal Indexed in SCI)
- XXXII. **Microbe-Mineral Interactions: Exploring Avenues Towards Development of a Sustainable Microbial Technology for Coal Beneficiation**
Mishra S, Panda S, Pradhan N, Biswal S. K. , Sukla L. B. , Mishra B. K.
ENVIRONMENTAL MICROBIAL BIOTECHNOLOGY, vol.45, pp.33-52, 2015 (Journal Indexed in SCI)
- XXXIII. **Fe (III) reduction strategies of dissimilatory iron reducing bacteria**
Esther J, Sukla L. B. , Pradhan N, Panda S.
KOREAN JOURNAL OF CHEMICAL ENGINEERING, vol.32, no.1, pp.1-14, 2015 (Journal Indexed in SCI)
- XXXIV. **Environmental Microbial Biotechnology Preface**
Sukla L. B. , Pradhan N, Mishra B. K. , Panda S.
ENVIRONMENTAL MICROBIAL BIOTECHNOLOGY, vol.45, 2015 (Journal Indexed in SCI)
- XXXV. **BBProF: An Asynchronous Application Server for Rapid Identification of Proteins Associated with Bacterial Bioleaching**
Parida B. K. , Panda S, Misra N, Panda P. K. , Mishra B. K.
GEOMICROBIOLOGY JOURNAL, vol.31, no.4, pp.299-314, 2014 (Journal Indexed in SCI)
- XXXVI. **Recovery of copper from a surface altered chalcopyrite contained ball mill spillage through bio-hydrometallurgical route**
Panda S, Rout P. C. , Sarangi C. K. , Mishra S, Pradhan N, Mohapatra U, Subbaiah T, Sukla L. B. , Mishra B. K.
KOREAN JOURNAL OF CHEMICAL ENGINEERING, vol.31, no.3, pp.452-460, 2014 (Journal Indexed in SCI)
- XXXVII. **Effect of dissimilatory Fe(III) reducers on bio-reduction and nickel-cobalt recovery from Sukinda chromite-overburden**
Esther J, Panda S, Behera S. K. , Sukla L. B. , Pradhan N, Mishra B. K.
BIORESOURCETECHNOLOGY, vol.146, pp.762-766, 2013 (Journal Indexed in SCI)
- XXXVIII. **Bioleaching of copper from pre and post thermally activated low grade chalcopyrite contained ball mill spillage**
Panda S, Pradhan N, Mohapatra U, Panda S. K. , Rath S. S. , Rao D. S. , Nayak B. D. , Sukla L. B. , Mishra B. K.
FRONTIERS OF ENVIRONMENTAL SCIENCE & ENGINEERING, vol.7, no.2, pp.281-293, 2013 (Journal Indexed in SCI)
- XXXIX. **Two step meso-acidophilic bioleaching of chalcopyrite containing ball mill spillage and removal of the surface passivation layer**
Panda S, Parhi P. K. , Nayak B. D. , Pradhan N, Mohapatra U. B. , Sukla L. B.
BIORESOURCETECHNOLOGY, vol.130, pp.332-338, 2013 (Journal Indexed in SCI)
- XL. **Insights into heap bioleaching of low grade chalcopyrite ores - A pilot scale study**
Panda S, Sanjay K, Sukla L. B. , Pradhan N, Subbaiah T, Mishra B. K. , Prasad M. S. R. , Ray S. K.
HYDROMETALLURGY, vol.125, pp.157-165, 2012 (Journal Indexed in SCI)
- XLI. **Bio-hydrometallurgical processing of low grade chalcopyrite for the recovery of copper metal**
Panda S, Sarangi C. K. , Pradhan N, Subbaiah T, Sukla L. B. , Mishra B. K. , Bhatia G. L. , Prasad M, Ray S. K.
KOREAN JOURNAL OF CHEMICAL ENGINEERING, vol.29, no.6, pp.781-785, 2012 (Journal Indexed in SCI)
- XLII. **Extraction of copper from bacterial leach liquor of a low grade chalcopyrite test heap using LIX 984N-C**
Panda S, Parhi P. K. , Pradhan N, Mohapatra U. B. , Sukla L. B. , Park K. H.
HYDROMETALLURGY, vol.121, pp.116-119, 2012 (Journal Indexed in SCI)
- XLIII. **Bioleaching of Zn(II) and Pb(II) from Nigerian sphalerite and galena ores by mixed culture of acidophilic bacteria**

Baba A. A. , Adekola F. A. , Atata R. F. , Ahmed R. N. , Panda S.

TRANSACTIONS OF NONFERROUS METALS SOCIETY OF CHINA, vol.21, no.11, pp.2535-2541, 2011 (Journal Indexed in SCI)

Articles Published in Other Journals

- I. **Bioremediation of acidic mine effluents and the role of sulfidogenic biosystems: a mini-review**
PANDA S., MISHRA S., Akcil A.
EURO-MEDITERRANEAN JOURNAL FOR ENVIRONMENTAL INTEGRATION, vol.1, no.1, 2016 (Journal Indexed in ESCI)
- II. **Evaluation of microbial population and attachment study during bio-heap leaching at Malanjhand copper project**
Singh S., Panda S., Mishra S., Pradhan N., Mohanty R., Sukla L.
International Journal of Environment and Waste Management, vol.11, no.1, pp.75-86, 2013 (Refereed Journals of Other Institutions)

Refereed Congress / Symposium Publications in Proceedings

- I. **BIODESULPHURIZATION ABILITIES OF ACIDOPHILIC STRAIN TOWARDS SULPHUR REMOVAL FROM TURKISH LIGNITE IN THE PRESENCE OF CHEMICAL SURFACTANT**
MISHRA S., AKÇİL A. U. , PANDA S., TUNCUK A., ERUST C., AĞCASULU İ.
15th International Mineral Processing Symposium, İstanbul, Turkey, 19 - 21 October 2016, pp.916-924
- II. **Bio-dissolution of Arsenic from Industrial Pyritic Ash Waste**
PANDA S., AKÇİL A. U. , MISHRA S., TUNCUK A., ERUST C., Agacasulu I.
16th International Symposium on Environmental Issues and Waste Management in Energy and Mineral Production (SWEMP) / International Symposium on Computer Applications (CAMI), İstanbul, Turkey, 5 - 07 October 2016

Citations

Total Citations (WOS):788

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