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International Researcher IDs

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Supported Projects

1. Sarıaydın N., Akkaya R., Nazlım A., Akkaya B., Project Supported by Higher Education Institutions, Synthesis and characterization of chitosan-poly(acrylamide-maleic acid) composite and study of lysozyme adsorption from aqueous solution, 2022 - 2023
2. Akkaya B., Karademir M., Güneş H., Akkaya R., Project Supported by Other Private Institutions, The effect of Mecsina hemostopper on sciatic nerve healing, 2018 - 2019
3. Karademir M., Taşkıran A. Ş., Akkaya B., Akkaya R., Project Supported by Other Private Institutions, Effects of Astaxin on peripheral nerve damage in rats., 2018 - 2019
4. Akkaya B., Akkaya R., Project Supported by Higher Education Institutions, Radioactive metal adsorption to poly acrylamide co acrylic acid composite, 2018 - 2019
5. Akkaya B., Gümüş E., Taşkıran A. Ş., Akkaya R., Project Supported by Higher Education Institutions, Effect of melatonin on pentylenetetrazol-induced epileptic seizures in rats during Wi-Fi exposure., 2018 - 2019
6. Akkaya B., Akkaya R., Project Supported by Higher Education Institutions, Composite Synthesis and Adsorption Applications, 2015 - 2016
7. Akkaya B., Akkaya R., Project Supported by Higher Education Institutions, Isolation of Lactobacillus producing Lipase enzyme from traditional yoghurt samples, 2015 - 2016
8. Akkaya B., Akkaya R., Project Supported by Higher Education Institutions, Antibody Purification by Lectin Affinity Chromatography, 2005 - 2006
9. Akkaya B., Akkaya R., Project Supported by Higher Education Institutions, Preparation of Magnetic Metal Chelate Affinity sorbents for Purification of Stochrome C, 2002 - 2005

Published journal articles indexed by SCI, SSCI, and AHCI

1. **Synthesis, Characterization, and Investigation of Doxorubicin Drug Release Properties of Poly(acrylamide-co-acrylic Acid/Maleic Acid)- Hydroxyapatite Composite Hydrogel.**
Akkaya B., Akkaya R.
Medicinal chemistry (Shariqah (United Arab Emirates)), 2024 (SCI-Expanded)
2. **Magnetic chitosan oligomer-sulfonate-stearic acid triple combination as cisplatin carrier for site-specific targeted on MCF-7 cancer cells: Preparation, characterization and in vitro experiments**
AKKAYA B., AKKAYA R., Nazlim A.
Chemical Biology and Drug Design, vol.102, no.4, pp.692-706, 2023 (SCI-Expanded)
3. **Antimicrobially effective protein-loaded metal chelated chitosan composite**
AKKAYA B., AKKAYA R., Taşklı Kafa A. H.

- Journal of Polymer Engineering, vol.43, no.8, pp.748-758, 2023 (SCI-Expanded)
4. Chitosan-poly(acrylamide-co-maleic acid) composite synthesis, characterization, and investigation of protein adsorption behavior
Akkaya R., Akkaya B., Taşkın Çakıcı G.
POLYMER BULLETIN, vol.80, no.4, pp.4153-4168, 2023 (SCI-Expanded)
5. Doxorubicin loaded pH-responsive chitosan-poly(acrylamide-maleic acid) composite hydrogel for anticancer targeting
AKKAYA B., AKKAYA R., Celikkaya S. I., Sarıaydin N., Raheem K. Y.
Journal of Molecular Structure, vol.1274, 2023 (SCI-Expanded)
6. Molecular docking to investigate the inhibitory activity and the role of nitric oxide in anticonvulsant effects of vitamin D on pentylenetetrazole-induced epileptic seizures in rats
AKKAYA R., AKKAYA B., Bello R. O.
Journal of Molecular Structure, vol.1273, 2023 (SCI-Expanded)
7. Experimental, DFT and MD simulation studies of Mordant Black 11 dye adsorption onto polyaniline in aqueous solution
Hajjaoui H., Khnifira M., Soufi A., Abdennouri M., Akkaya S., AKKAYA R., Barka N.
JOURNAL OF MOLECULAR LIQUIDS, vol.364, 2022 (SCI-Expanded)
8. Thiamine alleviates cognitive impairment and epileptogenesis by relieving brain inflammation in PTZ-induced kindling rat model
KARABULUT S., FİLİZ A. K., AKKAYA R.
NEUROLOGICAL RESEARCH, vol.44, no.10, pp.902-909, 2022 (SCI-Expanded)
9. Chemical and biological characterization of sulfated chitosan oligomer as heparin mimics
Kocabay S., Bahar M. R., TEKİN S., AKKAYA R., AKKAYA B.
POLYMERS & POLYMER COMPOSITES, vol.29, no.9_suppl, 2021 (SCI-Expanded)
10. Positive effects of angiotensin-converting enzyme (ACE) inhibitor, captopril, on pentylenetetrazole-induced epileptic seizures in mice
TAŞTEMUR Y., Gümüş E., ERGÜL M., Ulu M., AKKAYA R., Ozturk A., TAŞKIRAN A. Ş.
TROPICAL JOURNAL OF PHARMACEUTICAL RESEARCH, vol.19, no.3, pp.637-643, 2020 (SCI-Expanded)
11. Terbium adsorption onto polyhydroxyethylmethacrylatehydroxyapatite composite and its modified composition by phytic acid
Akkaya R.
DESALINATION AND WATER TREATMENT, vol.52, pp.1440-1447, 2014 (SCI-Expanded)
12. Removal of radioactive elements from aqueous solutions by adsorption onto polyacrylamide-expanded perlite: Equilibrium, kinetic, and thermodynamic study
Akkaya R.
DESALINATION, vol.321, pp.3-8, 2013 (SCI-Expanded)
13. Uranium and thorium adsorption from aqueous solution using a novel polyhydroxyethylmethacrylate-pumice composite
Akkaya R.
JOURNAL OF ENVIRONMENTAL RADIOACTIVITY, vol.120, pp.58-63, 2013 (SCI-Expanded)
14. New low-cost composite adsorbent synthesis and characterization
AKKAYA R., AKKAYA B.
DESALINATION AND WATER TREATMENT, vol.51, pp.3497-3504, 2013 (SCI-Expanded)
15. Adsorption isotherms, kinetics, thermodynamics and desorption studies for uranium and thorium ions from aqueous solution by novel microporous composite P(HEMA-EP)
AKKAYA R., AKKAYA B.
JOURNAL OF NUCLEAR MATERIALS, vol.434, pp.328-333, 2013 (SCI-Expanded)
16. Effects of pH, concentration and temperature on radionuclides sorption onto polyhydroxyethyl methacrylate-expanded perlite composite
Akkaya R.
JOURNAL OF RADIOANALYTICAL AND NUCLEAR CHEMISTRY, vol.295, no.1, pp.351-355, 2013 (SCI-Expanded)

17. **Synthesis and Characterization of Poly(2-hydroxyethylmethacrylate-hydroxyapatite) a Novel Composite for the Removal of Lead(II) from Aqueous Solutions**
Akkaya R.
CLEAN-SOIL AIR WATER, vol.40, no.11, pp.1257-1264, 2012 (SCI-Expanded)
18. **Removal of radio nuclides of the U- and Th- series from aqueous solutions by adsorption onto Polyacryamide-expanded perlite: Effects of pH, concentration and temperature**
Akkaya R.
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT, vol.688, pp.80-83, 2012 (SCI-Expanded)
19. **Synthesis and characterization of a new low-cost composite for the adsorption of rare earth ions from aqueous solutions**
Akkaya R.
CHEMICAL ENGINEERING JOURNAL, vol.200, pp.186-191, 2012 (SCI-Expanded)
20. **Production and immobilization of a novel thermoalkalophilic extracellular amylase from bacilli isolate**
AKKAYA B., YENİDÜNYA A. F., AKKAYA R.
INTERNATIONAL JOURNAL OF BIOLOGICAL MACROMOLECULES, vol.50, no.4, pp.991-995, 2012 (SCI-Expanded)
21. **Thermodynamic parameters of Tl⁺, Ra²⁺, Bi³⁺ and Ac³⁺ adsorption onto polyhydroxyethylmethacrylate-hydroxyapatite composite**
Akkaya R.
JOURNAL OF RADIOANALYTICAL AND NUCLEAR CHEMISTRY, vol.292, no.2, pp.771-775, 2012 (SCI-Expanded)
22. **Tl-208, Pb-212, Bi-212, Ra-226 and Ac-228 adsorption onto polyhydroxyethylmethacrylate-bentonite composite**
AKKAYA R., ULUSOY U.
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT, vol.664, no.1, pp.98-102, 2012 (SCI-Expanded)
23. **Separation of uranium and thorium in aqueous solution using polyhydroxyethylmethacrylate-hydroxyapatite novel composite**
Akkaya R.
DESALINATION AND WATER TREATMENT, vol.50, pp.180-188, 2012 (SCI-Expanded)
24. **Cross-Linked Bentonite-Acrylamide-histidine-Based Metal-Chelate Affinity Microcomposites for Lysozyme Separation From Egg White**
AKKAYA B., AKKAYA R.
SEPARATION SCIENCE AND TECHNOLOGY, vol.48, no.2, pp.272-280, 2012 (SCI-Expanded)
25. **A Crosslinked Carboxylic Acid Containing Cation Exchange Monolithic Cryogel for Human Serum Albumin Separation**
AKKAYA B., AKKAYA R.
JOURNAL OF MACROMOLECULAR SCIENCE PART A-PURE AND APPLIED CHEMISTRY, vol.49, no.9, pp.736-743, 2012 (SCI-Expanded)
26. **Bentonite-acrylamide-histidine-Cu(II) Microcomposite for Cytochrome c Adsorption**
AKKAYA B., AKKAYA R.
POLYMERS & POLYMER COMPOSITES, vol.20, no.9, pp.829-835, 2012 (SCI-Expanded)
27. **Adsorptive features of polyacrylamide-apatite composite for Pb²⁺, UO₂²⁺ and Th⁴⁺**
ULUSOY U., AKKAYA R.
JOURNAL OF HAZARDOUS MATERIALS, vol.163, no.1, pp.98-108, 2009 (SCI-Expanded)
28. **Adsorptive features of chitosan entrapped in polyacrylamide hydrogel for Pb²⁺, UO₂²⁺, and Th⁴⁺**
AKKAYA R., ULUSOY U.
JOURNAL OF HAZARDOUS MATERIALS, vol.151, pp.380-388, 2008 (SCI-Expanded)

Articles Published in Other Journals

1. **Protective Effect of Metformin Alone or in Combination with Valproic acid on Pentylenetetrazole-Induced Seizures in Mice**
GÜMÜŞ E., ERGÜL M., GÜLMEZ K., ULU M., AKKAYA R., ÖZDEMİR E., TAŞKIRAN A. Ş.
KSÜ Tıp Fakültesi Dergisi, vol.17, no.3, pp.15-21, 2022 (Peer-Reviewed Journal)
2. **Meloxicam, a selective COX-2 inhibitor, displays anticonvulsive effects in pentylenetetrazole-induced acute seizures in mice through GABA and glutamate mediated mechanism**
ŞAHİN B., AKKAYA R., KARABULUT S.
Experimental Biomedical Research, vol.5, no.1, pp.48-57, 2022 (Peer-Reviewed Journal)
3. **Cytochrome c adsorption in a continuous flow system by using Cu(II)-chelated magnetic affinity particles**
AKKAYA R., AKKAYA B.
BANGLADESH JOURNAL OF MEDICAL SCIENCE, vol.20, no.1, pp.159-163, 2021 (ESCI)
4. **Investigation of the effect of REM sleep deprivation on epileptic seizures caused by pentylenetetrazole in mice**
AKKAYA R., KARABULUT S., TAŞKIRAN A. Ş.
Experimental Biomedical Research, vol.3, no.3, pp.149-156, 2020 (Peer-Reviewed Journal)
5. **The Effect of Wireless (Wi-Fi) Electromagnetic Fields on Oxidative Stress in Rat Kidney Tissues: A Biophysical Analysis**
AKKAYA R.
Cumhuriyet Medical Journal, vol.42, no.1, pp.67-71, 2020 (Peer-Reviewed Journal)
6. **Modification by natural sources to reduce immuno-reactivity of milk proteins**
AKKAYA R., AKKAYA B., ÇETİNKAYA S.
CUMHURIYET SCIENCE JOURNAL, vol.41, no.1, pp.235-238, 2020 (Peer-Reviewed Journal)
7. **Dizi ve Filmlerde Hemşire İmajının Kültür Endüstrisi ve Popüler Kültür Bağlamında İncelenmesi: Türkiye'den İki Vakanın Analizi**
DARICI S., AKKAYA R.
International Journal of Multidisciplinary Studies and Innovative Technologies, vol.3, no.2, pp.219-224, 2019 (Peer-Reviewed Journal)
8. **Biophysical and computational comparison on the binding affinity of important proteins of folic acid and its metal complexes**
AKKAYA R.
Cumhuriyet Medical Journal, vol.41, no.4, pp.685-690, 2019 (Peer-Reviewed Journal)
9. **Dizi ve Filmlerde Hemşire İmajının Kültür Endüstrisi ve Popüler Kültür Bağlamında İncelenmesi: Türkiye'den İki Vakanın Analizi**
AKKAYA R., DARICI S.
International Journal of Multidisciplinary Studies and Innovative Technologies, vol.3, no.2, pp.219-224, 2019 (Peer-Reviewed Journal)
10. **The effects of wireless on carbonic anhydrase and acetylcholinesterase enzyme activities in some tissues related to respiratory, excretory and reproductive systems of rats**
DURNA DAŞTAN S., TASLİMİ P., GÜRSES F., AKKAYA R., GÜLÇİN İ.
Cumhuriyet Medical Journal, vol.41, pp.1-9, 2019 (Peer-Reviewed Journal)
11. **Theoretical Investigation of the Interactions between Cytochrome C and Some Heavy Metal Ions: A Biophysical Analysis**
AKKAYA R.
International Journal of Industrial Biotechnology and Biomaterials, vol.5, no.2, pp.27-31, 2019 (Peer-Reviewed Journal)
12. **Wi-Fi decreases melatonin protective effect and increases hippocampal neuronal damage in pentylenetetrazole induced model seizures in rats**
AKKAYA R., Gümüş E., AKKAYA B., KARABULUT S., Gülmez K., KARADEMİR M., TAŞTEMUR Y., Taşkiran A. Ş.

- Pathophysiology, 2019 (Scopus)
13. **New Composite, Poly(Hydroxyethylmethacrylate-Expanded Perlite), for Single step Separation of Egg White Lysozyme**
AKKAYA B., AKKAYA R.
Cumhuriyet Science Journal, vol.39, no.3, pp.694-702, 2018 (Peer-Reviewed Journal)
14. **Adsorption of Lead on to Poly(acrylamidemaleic acid)-Based Hydrogel Composites**
ULUSOY U., AKKAYA R.
Hacettepe J. Biol. Chem, vol.39, no.3, pp.257-264, 2011 (Peer-Reviewed Journal)
15. **Preparation and Characterization ofPoly(acrylamide/maleic acid)-based hydrogelsComposites**
AKKAYA R., ULUSOY U.
Hacettepe Journal of Biology and Chemistry, 2011 (Peer-Reviewed Journal)

Books & Book Chapters

1. **INTERNATIONAL INTERDISCIPLINARY CONGRESS OF WOMEN IN SCIENCE "Diversity, Careers, Interdisciplinarity"**
AKKAYA R.
IKSAD Publications – 2023, Sivas, 2023
2. **Current Debates on Health Sciences 4**
Akkaya B. (Editor), Akkaya R. (Editor)
Bilgin Kültür Sanat Yayınları (Bilgin Culture and Art Publications), Ankara, 2022
3. **Current Debates in Health Sciences 5**
Akkaya R. (Editor), Akkaya B. (Editor)
Bilgin Kültür Sanat Yayınları (Bilgin Culture and Art Publications), Ankara, 2022
4. **Current Debates in Health Sciences 6**
Akkaya B. (Editor), Akkaya R. (Editor)
Bilgin Kültür Sanat Yayınları (Bilgin Culture and Art Publications), Ankara, 2022
5. **Manyetik Alanın Kanser Hücreleri Üzerine Etkisini Biyokimyasal ve Biyofiziksel Açıdan İnceleme**
Akkaya R., Akkaya B.
in: Farklı Bilim Alanlarında Güncel Farmakoterapik Çalışmalar, Doç. Dr. Fikriye Yasemin ÖZATİK Doç. Dr. Orhan ÖZATİK, Editor, İksad Yayınevi, Ankara, pp.97-112, 2022
6. **REM Uyku Yoksunluğu ve Epileptik Nöbetler Üzerine Biyofiziksel Açıdan Bakış**
Akkaya R., Akkaya B.
in: Hastalık Mekanizmalarında Yeni Görüşler, Doç. Dr. Fikriye Yasemin ÖZATİK Doç. Dr. Orhan ÖZATİK, Editor, İksad Yayınevi, Ankara, pp.19-30, 2022
7. **The Relationship Between Vitamin D and Epilepsy**
Akkaya R., Akkaya B.
in: CURRENT PHYSIOLOGY - HISTOLOGY - EMBRYOLOGY STUDIES II, Mümin Alper ERDOĞAN, Editor, Akademisyen Yayınevi (Academician Publishing House), Ankara, pp.117-125, 2021
8. **Enzymatic Overview**
Akkaya B., Akkaya R.
in: Current Biochemistry Studies II, Doğan YÜCEL, Editor, Akademisyen Yayınevi (Academician Publishing House), Ankara, pp.31-49, 2021

Refereed Congress / Symposium Publications in Proceedings

1. **THE ROLE OF THE NITRIC OXIDE PATHWAY IN THE ANTICONVULSANT EFFECTS OF VITAMIN D ON EPILEPTIC SEIZURES IN RATS**
AKKAYA R.

1st International Karatekin Science and Technology Conference, Çankırı, Turkey, 01 September 2022

2. **New Heparin Mimetic Material And Its Anticancer Activity**
AKKAYA B., AKKAYA R.
Biohealth Congress, Afyon, Turkey, 24 February 2022, pp.1-5
3. **Purification of Yeast Metalloprotease by Affinity Chromatography**
AKKAYA B., YENİDÜNYA A. F., AKKAYA R.
IV. Ulusal Afinite Teknikleri Kongresi konferansı, Konya, Turkey, 23 - 27 June 2014
4. **Effect of Ptz-induced Epileptic Seizures After REM Sleep Deprivation on Gaba and Glutamate Levels in Mouse Hippocampus**
Akkaya R., Karabulut S.
3. Uluslararası Hipokrat Tıp ve Sağlık Bilimleri Kongresi, Ankara, Turkey, 6 - 07 March 2020
5. **The Effect of Ptz-Induced Epileptic Seizures After REM Sleep Deprivation on Gaba and Glutamate Levels in Mouse Hippocampus**
AKKAYA R., KARABULUT S.
3rd International Hippocrates Congress on Medical and HealthSciences, Ankara, Turkey, 6 - 07 March 2020
6. **Effect of Metformin and Valproic Acid Combination on Pentylenetetrazol-Induced Epileptic Seizures and Post-Seizure Hippocampal Neuron Damage in Mice**
Taşkıran A.Ş., Gülmek K., Ulu M., Gümüş E., Akkaya R., Özdemir E.
ULUSLARARASI KATILIMLI NÖRODEJERASYON/NÖROREJENERASYON ÇALIŞTAYI, Ankara, Turkey, 4 - 05 May 2018
7. **Investigation of the Effect of New Hydrazine Derivatives on S-Transferase Enzyme Activity**
Akkaya R., Koçyiğit Ü. M., Gürdere M. B., Budak Y., Ceylan M., Temel Y., Tayisi M. R., Gülçin I.
Uluslararası Katılımlı 6. İlaç Kimyası: İlaç Etkin Maddesi Tasarımı, Sentezi, Üretilimi ve Standardizasyonu Kongresi, Ankara, Turkey, 22 - 25 March 2018
8. **Adsorption Of Heavy Metal Ions In Tattoos Ink By Modified Bentonite Clay**
AKKAYA B., AKKAYA R.
International 2nd European Congress on Tattoo and Pigment Research, Brugge/Belgium, Belgium, 28 - 30 April 2015
9. **N Isopropyl Acrylamide Acrylic acid Monolithic Cryogel Columns**
Akkaya B., Akkaya R.
Kromatografi Kongresi, Ankara, Turkey, 4 - 07 July 2011

Courses

İş Sağlığı ve Güvenliği, Associate Degree, 2015 - 2016

Temel Kimya, Associate Degree, 2015 - 2016

Klinik Uygulama, Associate Degree, 2015 - 2016

Bilim Adamları ve Buluşları, Associate Degree, 2015 - 2016

Bilim Adamları ve Buluşları, Associate Degree, 2015 - 2016

İş Sağlığı ve Güvenliği, Associate Degree, 2015 - 2016

Klinik Uygulama, Associate Degree, 2015 - 2016

Organik Kimya, Associate Degree, 2014 - 2015

Temel Bilgi Teknolojileri - I, Associate Degree, 2015 - 2016

Radyasyondan Korunma, Associate Degree, 2015 - 2016

Temel Bilgi Teknolojileri Kullanımı, Associate Degree, 2015 - 2016

Temel Kimya, Associate Degree, 2015 - 2016

Temel Kimya, Associate Degree, 2015 - 2016

Araştırma Projesi, Associate Degree, 2015 - 2016

Organik Kimya, Associate Degree, 2014 - 2015

Çevre Sağlığı ve Koruması, Associate Degree, 2015 - 2016

Temel Bilgi Teknolojileri Kullanımı, Associate Degree, 2014 - 2015
Temel Kimya, Associate Degree, 2015 - 2016
Çevre Sağlığı ve Koruması, Associate Degree, 2015 - 2016
Radyasyondan Korunma, Associate Degree, 2015 - 2016
Temel Kimya, Associate Degree, 2015 - 2016
Organik Kimya, Associate Degree, 2013 - 2014
Bilgisayar, Associate Degree, 2014 - 2015
Bilgisayar, Associate Degree, 2014 - 2015
Temel Kimya, Associate Degree, 2013 - 2014
Organik Kimya, Associate Degree, 2012 - 2013

Metrics

Publication: 68
Citation (WoS): 405
Citation (Scopus): 528
H-Index (WoS): 11
H-Index (Scopus): 11

Research Areas

Health Sciences, Natural Sciences

Non Academic Experience

Ministry, Türkiye National Agency, Türkiye National Agency
Ministry, Ministry of Education, Board of Education and Discipline