CURRICULUM VITAE AND PUBLICATIONS LIST



CURRICULUM VITAE

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Area of Expertise: Chemistry
Natural Sciences

Degree	Department/Program	University	Year
Associate Degree	OTEL, LOKANTA VE İKRAM HİZMETLERİ BÖLÜMÜ	Anadolu University	2026
Master's Degree	İŞ SAĞLIĞI VE GÜVENLİĞİ (YL) (TEZSİZ) (UZAKTAN ÖĞRETİM)	İstanbul Gelişim University	2023
Doctorate	ANALİTİK KİMYA (DR)	Yildiz Technical University	2021
Master's Degree	ANALİTİK KİMYA (YL) (TEZLİ)	Marmara University	2015
Bachelor's Degree	KİMYA BÖLÜMÜ	Marmara University	2012

Position Title	Workplace	Year
Assistant Professor	Biruni University	2021-Continues
Research Assistant	Biruni University	2019-2021

PUBLICATIONS

A. Articles published in international peer-reviewed journals:

A1. Sekban L. S., Kaplan E., Koçyiğit N., Elgün T., Yurttaş A. G., Hamuryudan E., Özçeşmeci M., "Investigation of in vitro photodynamic activities of PEG and glycosyl group substituted BODIPY compounds", *Journal of Photochemistry and Photobiology A: Chemistry*, vol. 478, 2026.

A2. Koçyiğit N., Demir F., Yağci Ö., Arvas M. B., Kahriman N., "Electrochemical Copolymerization of Some Pyrimidine-N-Glycosides-Doped Poly(3,4-Ethylenedioxythiophene)/Polypyrrole Electrodes for Enhanced Supercapacitor Performance", *Journal of Electronic Materials*, vol. 55, no. 8, pp. 7339-7358, 2026.

A3. Koçyiğit N., Yılmaz S. M., Yenigürbüz A., Özcan E., Ceylan C., Selimoğlu E. Z., Balcı F., Arvas M. B., "Sequential electrochemical fabrication of an overoxidized polythiophene/graphene/Ag nanocomposite-modified pencil graphite electrode for highly sensitive electrochemical determination of bisphenol A", *Applied Physics A*, vol. 132, no. 871, 2026.

A4. Koçyiğit N., Beyhan S., Çil A., Çolak S., Arvas M. B., Perçin Özkorucuklu S., "Highly sensitive electrochemical detection of riboflavin in biological samples using a phthalic acid–doped polyaniline-modified pencil graphite electrode", *Synthetic Metals*, vol. 320, 2026.

A5. Pingo E., Koçyiğit N., Arvas M. B., Aşçı B., "Dual analytical approach for niflumic acid: HPLC determination and electrochemical sensing by quaternary ammonium salt-assisted modification of pencil graphite electrode", *Synthetic Metals*, vol. 319, 2026.

A6. Ünlü F. Y., Arvas M. B., Jahangiri H., Gökçe H., Koçyiğit N., Özçeşmeci İ., Ünlü C., "Molecular additive control of MOF crystallization: effect of phthalocyanine on size and interfacial redox response of ZIF-8", *Microporous and Mesoporous Materials*, vol. 402, 2026.

A7. Soylu C., Koyuncu E., Koçyiğit N., Arvas M. B., Açar Selçuki N., Özer M., Bekaroğlu Ö., "Synthesis of novel ball-type metallophthalocyanines with free-phthalonitrile groups based on tris-phthalonitrile as high-performance graphene-based supercapacitor electrodes", *Journal of Alloys and Compounds*, vol. 1051, 2026.

A8. Özcan Aykol Ş. M., Koçyiğit N., Davşan L. T., Yağci Ö., Arvas M. B., "Gold-nanoparticle/copolymer-modified screen printed carbon based electrode nonenzymatic electrochemical sensor for sensitive detection of pyocyanin as a Pseudomonas aeruginosa infections biomarker", *Microchemical Journal*, vol. 220, 2026.

A9. Arvas M. B., Koçyiğit N., Yazar Aydoğan S., Uzbiçer K., Yaylagül S., Yağci Ö., Şahin M., Şahin M., "Sensitive, low cost and disposable electrochemical dopamine sensor based on Ag-NP/f-MWCNT/Poly (L-Cysteine)/ PGE", *Applied Physics A*, vol. 131, 2025.

A10. Koçyiğit N., Dinc Zor S., Yagci O., Uzuncam S. B., Arvas M. B., "ZnO-NF/Graphene/Nafion as electrode platform for some pharmaceutical active ingredients sensor and energy storage applications", *Synthetic Metals*, vol. 311, 2025.

A11. Karacan M., Koçyiğit N., Akdağ Ö., Özer M., Özkaya A. R., "The novel double-decker lanthanide metal phthalocyanines substituted with 1-[3,5-bis (trifluoromethyl)phenyl] propoxyl: Synthesis, characterization, electrochemistry, spectroelectrochemistry, and electrochromism", *Journal of Molecular Structure*, vol. 1325, 2025.

A12. Arvas M. B., Yaylagül S., Uzbiçen K., Koçyiğit N., Yağci Ö., "Impact of Boehmite and Gibbsite on the supercapacitor performances of polypyrrole: γ-AlO(OH)/PPy/CF and γ-Al(OH)3/PPy/CF flexible and wearable nanocomposites", *Journal of Alloys and Compounds*, vol. 1016, 2025.

A13. Koçyiğit N., Dinc-zor S., Yagci O., Arvas M. B., "Furoic acid-doped-over-oxidized poly (3, 4-ethylenedioxythiophene)-based electrochemical sensor for selective, sensitive and concurrent quantification of paracetamol, codeine phosphate and caffeine in pharmaceutical formulation", *Journal of Materials Research*, 2025.

A14. Koçyiğit N., Zor S. D., Yagci O., Arvas M. B., "One-step chronoamperometric synthesis of S, N co-doped graphene oxide electrodes for nonenzymatic electrochemical H2O2 sensor", *Journal of Materials Science: Materials in Electronics*, vol. 35, no. 34, 2024.

A15. Koçyiğit N., Ramzy A. T. A., Yazar S., Arvas M. B., Acar-selçuki N., Özer M., Bekaroğlu Ö., "Novel Ball-Type Phthalocyanines with Eight Benzotriazole Groups: Synthesis, Computational DFT Studies, and Supercapacitor Properties", *ECS Journal of Solid State Science and Technology*, vol. 13, no. 11, 2024.

A16. Bilen B. S., Özçeşmeci M., Koçyiğit N., Elgün T., Yurttaş A. G., Hamuryudan E., "Glycosylated zinc(II) phthalocyanine photosensitizer: Synthesis, photophysical properties and in vitro photodynamic activity on breast cancer cell line", *Journal of Molecular Structure*, vol. 1295, 2024.

A17. Gümrükçü S., Kaplan E., Arvas M. B., Koçyiğit N., Özçeşmeci M., Şahin Y., Özçeşmeci İ., "Palladium (II)-NNN Pincer Complex Embedded Carbon Felt Electrode for High-Performance Symmetrical Supercapacitor Applications", *Energy Technology*, 2024.

A18. Gümrükçü S., Özçeşmeci M., Koçyiğit N., Kaya K., Gül A., Şahin Y., Özçeşmeci İ., "Synthesis, fabrication and characterization of 2-naphthyloxy group-substituted bis(2-pyridylimino)isoindoline and its derivatives as a positive electrode for vanadium redox flow battery applications", *Dalton Transactions*, vol. 52, no. 16, pp. 5265-5276, 2023.

A19. Koçyiğit N., Arvas M. B., Yazar S., Açar-selçuki N., Şahin Y., Özer M., Bekaroğlu Ö., "Synthesis and characterization of novel HMPM bridged ball-type metallophthalocyanines, and their DFT studies and electrochemical performance as supercapacitor electrodes", *Synthetic Metals*, vol. 292, 2023.

A20. Koçyiğit N., Gencten M., Sahin M., Sahin Y., "A novel electrolytes for redox flow batteries: Cerium and chromium couples in aqueous system", *International Journal of Energy Research*, vol. 45, no. 11, pp. 16176-16188, 2021.

A21. Koçyiğit N., Gencten M., Sahin M., Sahin Y., "Chrome and cobalt-based novel electrolyte systems for redox flow batteries", *International Journal of Energy Research*, vol. 44, no. 10, pp. 8014-8023, 2020.

A22. Koçyiğit N., Gencten M., Sahin M., Sahin Y., "A novel vanadium/cobalt redox couple in aqueous acidic solution for redox flow batteries", *International Journal of Energy Research*, vol. 44, no. 1, pp. 411-424, 2020.

A23. Koçyiğit N., Özen Ü. E., Özer M., Salih B., Özkaya A. R., Bekaroğlu Ö., "Electrocatalytic Activity of Novel Ball-Type Metallophthalocyanines with Trifluoro Methyl Linkages in Oxygen Reduction Reaction and Application as Zn-Air Battery Cathode Catalyst", *Electrochimica Acta*, vol. 233, pp. 237-248, 2017.

B. Papers presented at international scientific meetings and published in proceedings:

B1. Koçyiğit N., Arvas M. B., NiCo2O4/S,N-codoped Graphene Oxide/Nafion/GCE nanocomposite electrode material for energy storage applications, In: *International Conference on New Trends in Chemistry*, Bologna, Italy, 2025.

B2. Ramzy A. T. A., Koçyiğit N., Arvas M. B., Yazar Aydoğan S., Özer M., Bekaroğlu Ö., NOVEL BALL-TYPE METALLOPHTHALOCYANINES DERIVED FROM BENZOTRIAZOL: THEIR SYNTHESIS, CHARACTERIZATION AND ELECTROCHEMICAL PERFORMANCE AS SUPERCAPACITOR ELECTRODES, In: *IV. BASKENT INTERNATIONAL CONFERENCE ON MULTIDISCIPLINARY STUDIES*, Turkey, 2023, pp. 501-502.

B3. Koçyiğit N., Gençten M., Şahin M., Şahin Y., Karbon Esaslı Elektrodun Ce(III) Çözeltisinde ElektrokimyasalDavranışlarının İncelenmesi, In: *GAPYENEV-2020 II. International Renewable Energy and Energy Efficiency Congress*, İstanbul, Turkey, 2020.

B4. Koçyiğit N., Gençten M., Şahin M., Şahin Y., Electrochemical Behaviour of Graphite Based Electrode in Co(Ii)/Cr(Iii) Based Redox Flow Battery, In: *World Energy Strategies Congress and Exhibition*, İstanbul, Turkey, 2019, pp. 205-208.

B5. Özer M., Koçyiğit N., Özen Ü. E., Özkaya A. R., Bekaroğlu Ö., Synthesis and characterization of unique bifunctional oxygen electrocatalysts M2Pc2 type macrocycles and their usage in the secondary Zn O2 battery applications, In: *2nd International Conference on Green Chemistry and Sustainable Engineering*, Rome, Italy, 2016.

B6. Koçyiğit N., Orman E. B., Altındal A., Salih B., Özkaya A. R., Bekaroğlu Ö., Özer M., Catalytic activity and photovoltaic properties of novel 4,4'-(hexafluoroisoproplydene)diphenol based ball-type metallophthalocyanines, In: *17th International Symposium on Relations between Homogeneous and Heterogeneous Catalysis*, Utrecht, Netherlands, 2015.

D. Articles published in national peer-reviewed journals:

D1. Koçyiğit N., "Sensitive and selective electrochemical detection of dopamine with one-step chronoamperometric synthesis of sulfur and phosphorus co-doped graphene oxide-based electrode", *Journal of the Turkish Chemical Society Section A: Chemistry*, vol. 2026, 2026.

E. Papers presented at national scientific meetings and published in proceedings:

E1. Koçyiğit N., Arvas M. B., HEMATEİN KATKILI POLİPİROL KALEM UCU ELEKTRODUN SÜPERKAPASİTÖR PERFORMANSININ İNCELENMESİ, In: *X. ULUSAL ANORGANİK KİMYA KONGRESİ*, Karabük, Turkey, 2025.

E2. Koçyiğit N., Arvas M. B., Asetik Asit ve Fosfanoasetik Asit Katkılı Polipirol Kalem Ucu Elektrotların Süperkapasitör Özelliklerinin Araştırılması, In: *35. Ulusal Kimya Kongresi*, Diyarbakır, Turkey, 2024.

E3. Koçyiğit N., Dinç Zor Ş., Yağci Ö., Arvas M. B., S, N eş katkılı grafen oksit elektrotların kronoamperometrik yöntem ile tek adımlı sentezi ve H2O2 elektrokimyasal sensörü, In: *35. Ulusal Kimya Kongresi*, Diyarbakır, Turkey, 2024.

E4. Kaplan E., Sekban L. S., Koçyiğit N., Yurttaş A., Elgün T., Hamuryudan E., Özçeşmeci M., Suda Çözünür Mezo-Sübstitüye BODIPY Bileşiklerinin in vitro Fotodinamik Aktivitelerinin İncelenmesi, In: *9. Ulusal Anorganik Kimya Kongresi*, Ankara, Turkey, 2024.

E5. Uzunçam Ş. B., Koçyiğit N., Arvas M. B., Dinç Zor Ş., Electrocharacterization and Development of a Novel Electrochemical Sensor for the Simultaneous Determination of Paracetamol and Ibuprofen, In: *4. Ulusal Karbon Konferansı*, İstanbul, Turkey, 2024.

E6. Koçyiğit N., Gençten M., Şahin Y., Investigation of Electrochemical Behavior of Fe (II) With Carbon-Based Electrodes in Redox Flow Batteries, In: *3. Ulusal Karbon Konferansı (3. UKK)*, İstanbul, Turkey, 2021.

E7. Koçyiğit N., Gençten M., Şahin M., Şahin Y., Farklı Derişimlerdeki Vanadyum(III) Çözeltisinin Asidik Ortamda Elektrokimyasal Davranışlarının İncelenmesi, In: *31. Ulusal Kimya Kongresi*, İstanbul, Turkey, 2019, pp. 169.