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LANGUAGES

- Turkish (Native speaker)
- English: Pre-advanced

EDUCATION

PhD IN CHEMISTRY Erciyes University Institute of Science and Technology, Department of Analytical Chemistry, 2008, Kayseri, Turkey (Advisor: Prof. Dr. Mustafa Soylak)

Subject: Enrichment of some heavy metal ions by co-precipitation and solid phase extraction

MSc IN CHEMISTRY Erciyes University Institute of Science and Technology, Department of Analytical Chemistry, 2000, Kayseri, Turkey (Advisor: Prof. Dr. Mustafa Soylak)

Subject: Enrichment of some trace elements by solid phase extraction in the column

BSc IN CHEMISTRY Erciyes University, Faculty of Science, Department of Chemistry, 1998, Kayseri, TURKEY

RESEARCH INTERESTS

- Separation and Preconcentration Techniques
- Supramolecular, Deep Eutectic Solvent and Hybrid Nano Material Based Extraction/Microextraction Techniques
- Spectroscopic and Chromatographic Determinations

SKILLS & TECHNIQUES

- Flame Atomic Absorption Spectroscopy (FAAS)
- Inductively Coupled Plasma-Mass Spectrometry (ICP-MS)
- Ultraviolet-Visible (UV-Vis) Spectroscopy
- High-Performance Liquid Chromatography (HPLC)
- Ion Chromatography (IC)
- Scanning Electron Microscope (SEM)
- Dynamic Light Scattering (DLS) and Z-Potential

PUBLICATIONS

- 1 **Armağan, F.**, Soylak, M., Elci, L., Doğan, M., Solid phase extraction of some metal ions on Diaion HP-20 resin prior to flame atomic absorption spectrometric analysis. *J Trace Microprobe Tech.* 20, 15-27 (2002).
- 2 Soylak, M., **Aydın, F.A.**, Saracoğlu, S., Elci, L., Doğan, M., Chemical analysis of drinking water samples from Yozgat-Turkey. *Pol J Environ Stud.* 11, 151-156 (2002).
- 3 **Aydın, F.A.**, Soylak, M., Solid Phase extraction and preconcentration of uranium(VI) and thorium (IV) on Duolite XAD761 prior to their inductively coupled plasma spectrometric determination. *Talanta.* 72, 187-192 (2007).
- 4 **Aydın, F.A.**, Soylak, M., A Novel multi-element coprecipitation technique for separation and enrichment of metal ions in environmental samples. *Talanta,* 73, 134-141 (2007).
- 5 **Aydın, F.A.**, Soylak, M., Thulium hydroxide: a Coprecipitant for speciation of chromium in natural water samples. *J Hazard Mater.* 162, 1228-1232 (2009).
- 6 Yüce, G., Uğurluoğlu, D., Dilaver, A.T., Eser, T., Sayın, M., Dönmez, M., Özçelik, S., **Aydın, F.**, The effects of lithology on water pollution: Natural radioactivity and trace elements in water resources of eskisehir region (Turkey). *Water Air Soil Pollut.* 202 (1-4), 69-89 (2009).
- 7 **Aydın, F.A.**, Soylak, M., Separation, preconcentration and inductively coupled plasma-mass spectrometric (ICP-MS) determination of thorium(IV), titanium(IV), iron(III), lead(II) and chromium(III) on 2-nitroso-1-naphthol Impregnated MCI GEL CHP20P Resin. *J Hazard Mater.* 173, 669-674 (2010).
- 8 **Aydın, F.**, Yılmaz E., Soylak M., Supramolecular solvent-based dispersive liquid-liquid microextraction of copper from water and hair samples. *RSC Adv.* 5, 50, 40422-40428 (2015).
- 9 **Aydın, F.**, Yılmaz E., Soylak M., Supramolecular solvent-based microextraction method for cobalt traces in food samples with optimization plackett-burman and central composite experimental design. *RSC Adv.* 5,115, 94879-94886 (2015).
- 10 **Aydın, F.**, Yılmaz E., Soylak M., Ultrasonic-assisted supramolecular solvent-based liquid phase microextraction of mercury as 1-(2-pyridylazo)-2-naphthol complexes from water samples. *Int J Environ Anal Chem.* 96, 1356-1366 (2016).
- 11 **Aydın, F.**, Yılmaz E., Soylak M., A simple and novel deep eutectic solvent-based ultrasound-assisted emulsification liquid phase microextraction method for malachite green in farmed and ornamental aquarium fish water samples. *Microchem J.* 132, 280-285 (2017).
- 12 **Aydın F.**, Yılmaz E., Soylak M., Vortex assisted deep eutectic solvent (DES)-emulsification liquid-liquid microextraction of trace curcumin in food and herbal tea samples. *Food Chem.* 243, 442-447 (2018).
- 13 **Aydın F.**, Yılmaz E., Ölmez E., Soylak M., Cu₂O-CuO ball like/ multiwalled carbon nanotube hybrid for fast and effective ultrasound-assisted solid phase extraction of uranium at ultra-trace level prior to ICP-MS detection. *Talanta.* 207, 120295-120302 (2020).
- 14 Yay A., Onses M.S., Sahmetlioglu E., Ceyhan A., Pekdemir S., Önder G.Ö., Sezer G., Sarıca Z.S., **Aydın F.**, Raman spectroscopy: A novel experimental approach to evaluating cisplatin induced tissue damage. *Talanta.* 207, 120343, (2020).
- 15 **Aydın F.**, Çakmak R., Levent A., Soylak M. Silica Gel-Immobilized 5-aminoisophthalohydrazide: A novel sorbent for solid phase extraction of Cu, Zn and Pb from natural water samples. *App Organomet Chem.* 34 (4), e5481, (2020).

CONFERENCE PAPERS/ORAL

- 1 **Aydın, F., 2003.** Separation and enrichment of trace elements. Pollution impacts and solutions symposium on inland water resources of Turkey, **Fethiye, Antalya (Turkey).**
- 2 **Aydın, F., Soylak M., 2007.** Enrichment of U(VI), Th(IV), Ti(IV), Fe(III), Pb(II) and Cr(III) metals using MCI GEL CHP20P resin impregnated with 1-Nitroso-2-Naphthol and by ICP-MS determinations. X. National Spectroscopy Congress, **Urla, İzmir (Turkey).**
- 3 **Aydın, F., Yılmaz E., Soylak M., 2014.** Microextraction and determination of Cu (II) Ion by supramolecular solvent based micro extraction technique and FAAS. III. Work Analysis Workshop (EsAn-2014), **Tokat (Turkey).**
- 4 **Aydın F., Yılmaz E., Soylak M., 2016.** Separation and enrichment of malachite green by deep eutectic solvent based liquid phase microextraction. IV. Work Analysis (EsAn-2016) Congress, **Sakarya (Turkey).**
- 5 **Aydın, F., Yılmaz E., Soylak M., 2016.** A Novel technique based on the using of deep eutectic solvents (DESs) as liquid phase microextraction solvent for determination of malachite green residues in aquarium and fish farm waters. The 7th International Conference on Optical Spectroscopy, Laser and their Applications, **Egyp (Cairo).**
- 6 **Aydın, F., Yılmaz E., Soylak M., 2016.** The using of deep eutectic solvents (DESs) in spectrophotometric determination of curcumin. 1st International Black Sea Congress on Environmental Sciences (1st IBCESS), **Giresun (Turkey).**
- 7 **Aydın, F., Çakmak R., Levent A., 2017.** Synthesis, characterization and application for solid phase extraction of trace metals combined with FAAS of a new silica gel-immobilized schiff base derivative. The İCSP&AM5, 5th International Caucasian Symposium on Polymers and Advanced Materials, **Tbilisi (Georgia).**
- 8 **Aydın, F., Yılmaz E., Ölmez E., Soylak M., 2018.** Multiwalled carbon nanotube/CuO/Cu₂O hybrid material as a novel sorbent for fast and effective vortex-assisted solid phase extraction of uranium for ICP-MS detection. EsAN 2018 International Trace Analysis Conference, **Sivas (Turkey).**
- 9 **Aydın, F., Yılmaz E., Demirkıran G., Erbaş Z., Soylak M., 2018.** The application of TiO₂/ZnO Nanocomposite as a new trapping media for solid phase extraction of U and Th. International Academic Conference on Applied Research in Engineering, Science & Technology, **Brussel (Belgium).**

CONFERENCE PAPERS/POSTER

- 1 Saraçoğlu, S., Divrikli, U., Soylak, M., **Armağan, F., Elci, L., 2000.** Determination of some metal ions by AAS in baking powder and baking soda samples after preconcentration and separation. 2nd Aegean Analytical Chemistry Days, **Ayvalık/Balıkesir (Turkey).**
- 2 Soylak, M., **Armağan, F., Elçi, L., Doğan, M., 2000.** Column chromatographic preconcentration and separation of some metal ions on Diaion HP-20 resin. 2nd Aegean Analytical Chemistry Days, **Ayvalık/Balıkesir (Turkey).**

- 3 **Armağan, F.,** Soylak, M., Elçi, L., Doğan, M., **2000.** HP-20 Resin filled mini columns enrichment of copper and nickel. XIV. National Chemistry Congress (CHEMISTRY 2000), **Diyarbakır (Turkey).**
- 4 Soylak, M., Saracoglu, S., Divrikli, U., **Armağan, F.,** Elçi, L., **2000.** Tokat province serum copper and zinc levels. XIV. National Chemistry Congress (CHEMISTRY 2000), **Diyarbakır (Turkey).**
- 5 **Aydın F.,** Soylak, M., **2006.** Solid phase extraction with Duolite XAD 761 resin and determination of uranium and thorium by ICP-MS. III. National Analytical Chemistry Congress, **Çanakkale (Turkey).**
- 6 **Aydın, F.,** Soylak, M., **2006.** Enrichment of some heavy metal ions by co-precipitation method. XX. National Chemistry Congress (CHEMISTRY 2006), **Kayseri (Turkey).**
- 7 Soylak M. Yılmaz E., **Aydın, F.,** **2014.** Determination of cobalt enrichment by flame atomic absorption spectrometry using subramolecular solvent based micro extraction (SUSME) technique. 7th National Analytical Chemistry Congress, **Kahramanmaraş (Turkey).**
- 8 **Aydın, F.,** Yılmaz E., Soylak M., **2015.** Spectrophotometric determination of mercury after supramolecular solvent-based microextraction (Ss-ME) in environmental samples. 7th Black Sea Basin Conference on Analytical Chemistry (7th BBCAC), Golden Sands, **Varna (Bulgaria) (Poster-Best Poster Award).**
- 9

PROJECTS

- 1 Soylak, M., **Aydın, F.A.,** Enrichment of some heavy metal ions by co-precipitation and solid phase extraction, Erciyes University Scientific Research Projects, Project No: EUBAP 0515, **Researcher, (2005).**
- 2 Soylak, M., Narin, I., Kars, A., **Aydın, F.A,** Kacar, S., Speciation of Cr (VI) and Cr (III) by solid phase extraction and determination of chromium in food, water and pharmaceutical samples, The Scientific and Technological Research Council of Turkey (TUBITAK), Project No: 104T330, **Researcher, (2006).**
- 3 **Aydın F.,** Soylak, M., Extraction and spectrophotometric determination of metal ions by supramolecular solvent based dispersive microextraction (SB-DSSME) technique, Van Yyu Scientific Research Projects, Project No: 2015-ECZ-B207, **Project Manager, (2016).**
- 4 Solmaz H., Demirel K., ELP M., Şen F., Aydın H., **Aydın F.,** Ogun E., Arvas G., Yıldız N., Oto B., Selçuk Zorer O., Altuğ Atıcı A., Investigation of microbiological, chemical and radioactive pollution levels of van lake, Van Yyu Scientific Research Projects, Project No: 2014-YNL-ECZ188, **Researcher, (2017).**
- 5 **Aydın F.,** Demirkıran G., Determination of trace element species using solid phase extraction method, Yyu Scientific Research Projects. Master Thesis Project, Project No: TYL-2018-6900, **Project Manager, (2018).**

RESEARCH GRANT

TUBITAK 2219- International Postdoctoral Research Fellowship (1 year)

SCIENTIFIC PRODUCTION

Citations	h Index	Orcid
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