

CV

- 1. Name Surname** : AYÇA BAL ÖZTÜRK
- 2. Date of Birth** : 01.04.1984
- 3. Title** : Assistant Professor
- 4. State of Education** : PhD
- 5. Current Institution** : Istinye University, Faculty of Pharmacy/
Analytical Chemistry

Istinye University, Topkapı Campus, Maltepe Mah., Edirne Çırpıcı Yolu, No.9 Zeytinburnu,
Istanbul, 34010.

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Degree	Department	University	Date
Bachelor's Degree	Chemical Engineering	Istanbul University	2006
Master's Degree	Chemical Engineering	Istanbul University	2009
PhD	Chemical Engineering	Istanbul University	2015
Post-Doc	Tissue Engineering	Harvard University	2017

5. Academic Appointments

- Assistant Professor (Date) : 04.12.2017
Associate Professor (Date) :
Professor (Date) :

6. Theses Advised

- 6.1. Postgraduate Theses
- 6.2. Doctoral Theses

7. Publications

- 7.1. Articles published in internationally refreed journals (SCI,SSCI,Arts and Humanities)

1. J. Seo, J.Y. Shin, J. Leijten, O. Jeon, **A.B. Öztürk**, J. Rouwkema, Y. Li, J. Shin, S.R. Shin, H. Hajiali, E. Alsberg, A. Khademhosseini, Interconnectable Dynamic Compression Bioreactors for Combinatorial Screening of Cell Mechanobiology in Three-dimensions" ACS Applied Materials & Interfaces, submitted.
2. **A.B. Öztürk**, E. Cevher, S. Pabuccuoglu, S. Özgümüş "pH Sensitive Functionalized Hyperbranched Polyester Based Nanoparticulate System for the Receptor-Mediated Targeted Cancer" The International Journal of Polymeric Materials and Polymeric Biomaterials, accepted.
3. Özbaş, Z., Özkahraman, B., **Öztürk, A. B.**, "Controlled Release Profile of 5-fluorouracil Loaded P(AAM-co-NVP-co-DEAEMA) Microgel Prepared via Free Radical Precipitation Polymerization" Polymer Bulletin, 1-15, (2017).

4. Hassan, S., Prakash, G., **Öztürk, A. B.**, Saghzadeh, S., Sohail, M. F., Seo, J., Dökmeci, M. R., Zhang, Y. S., Khademhosseini, A., “Evolution and Clinical Translation of Drug Delivery Nanomaterials” *Nano Today*, 15, 91-106, (2017).
5. Arda, B., **Bal, A.**, Acar, I., “Characterization of the Oxidative Degradation Kinetics of Thermoplastics” *Instrumentation Science & Technology*, DOI: 10.1080/10739149.2017.1278705, (2017).
6. **Bal, A.**, Ozkahraman, B., Ozbas, Z., “Preparation and characterization of pH responsive poly(methacrylic acid-acrylamide-N-hydroxyethyl acrylamide) hydrogels for drug delivery systems” *Journal of Applied Polymer Science*, 133(13), 43226, (2016).
7. Cam, Ç., **Bal, A.**, Güçlü, G., ”Synthesis and film properties of epoxy esters modified with amino resins from glycolysis products of postconsumer PET bottles” *Polymer Engineering & Science*, 55(11), 2519-2525, (2015).
8. **Bal, A.**, Çepni, F., Çakır, Ö., Acar, I., Güçlü, G., “Synthesis and Characterization of Copolymeric and Terpolymeric Hydrogel-Silver Nanocomposites based on Acrylic acid, Acrylamide and Itaconic acid: Investigation of their Antibacterial Activity against Gram-Negative Bacteria”, *Brazilian Journal of Chemical Engineering*, 32(2), 509-518, (2015).
9. **Bal, A.**, Acar, I., Güçlü, G., “Thermal Oxidative Degradation Kinetics of Nanocomposite Alkyd-Melamine Formaldehyde Resin Containing Modified Silica”, *Instrumentation Science & Technology*, 42(3), 345-356, (2014).
10. **Bal, A.**, Özkahraman, B., Acar, I., Özyürek, M., Güçlü, G., “Study on adsorption, regeneration and reuse of crosslinked chitosan graft copolymers for Cu(II) ion removal from aqueous solutions”, *Desalination and Water Treatment*, 52, 3246-3255, (2014).
11. Özgümüş, S., Gök, M.K., **Bal, A.**, Güçlü, G., “Study on a novel exfoliated polyampholyte nanocomposite hydrogels based on acrylic monomers and Mg-Al-CI layered double hydroxide: Synthesis and characterization”, *Chemical Engineering Journal*, 223(1), 277–286, (2013).
12. Tuna, Ö., **Bal, A.**, Güçlü, G., “Investigation of the Effect of Hydrolysis Products of Post-consumer PET Bottles on the Properties of Alkyd Resins”, *Polymer Engineering & Science*, 53, 176-182, (2013).
13. Acar, I., **Bal, A.**, Güçlü, G., “The use of intermediates obtained from aminoglycolysis of waste poly(ethylene terephthalate) (PET) for the synthesis of water-reducible alkyd resin”, *Canadian Journal of Chemistry*, 91(5), 357-363, (2013).
14. **Bal, A.**, Acar, I., İyim, T.B., Güçlü, G., “A Novel Type of Organo Clay Containing Alkyd-Melamine Formaldehyde Resins”, *International Journal of Polymeric Materials and Polymeric Biomaterials*, 62(6), 309–313, (2013).
15. Acar, I., **Bal, A.**, Güçlü, G., “The Effect of Xylene as Aromatic Solvent to Aminoglycolysis of Post Consumer PET Bottles”, *Polymer Engineering & Science*, 53(11), 2429-2438, (2013).

16. **Bal, A.**, Acar, I., Güçlü, G., İyim, T.B., “Effect of Organo Clay on Film Properties of Alkyd-Phenol Formaldehyde Resins”, *Pigment & Resin Technology*, 41(2), 100-103, (2012).
17. Acar, I., **Bal, A.**, Güçlü, G., “Adsorption of Basic Dyes from Aqueous Solutions by Depolymerization Products of Post-consumer PET Bottles”, *Clean-Soil, Air, Water*, 40(3), 325–333, (2012).
18. **Bal, A.**, Acar, I., Güçlü, G., “A Novel Type Nanocomposite Coating Based on Alkyd-Melamine Formaldehyde Resin Containing Modified Silica: Preparation and Film Properties”, *Journal of Applied Polymer Science*, 125(S1), E85-E92, (2012).
19. Özkahraman, B., **Bal, A.**, Acar, I., Güçlü, G., “Adsorption of Brilliant Green from Aqueous Solutions onto Crosslinked Chitosan Graft Copolymers”, *Clean-Soil, Air, Water*, 39(11), 1000-1006, (2011).
20. **Bal, A.** Güçlü, G. İyim, T.B., Özgümüş, S., “Effects of Nanoparticles on Film Properties of Waterborne Acrylic Emulsions”, *Polymer-Plastics Technology and Engineering*, 50(10), 990-995, (2011).
21. **Bal, A.**, Güçlü, G., Acar, I., İyim, T.B., “Effects of Urea Formaldehyde Resin to Film Properties of Alkyd-Melamine Formaldehyde Resins Containing Organo Clay”, *Progress in Organic Coatings*, 68(4), 363–365, (2010).

7.2. Articles published in other internationally refereed journals

7.3. Assertions presented in international scientific congresses and published in the proceedings

1. Yilmaz, O. K., **Ozturk, A.B.**, Aksu, S., Tas, A., Adigüzel, Z., Olmez, H., “Synthesis and Characterization of Sponge-like Chitosan Based Nanostructured Antibacterial Materials for Hemorrhage Control”, 8th International Advanced Technologies Symposium (IATS’17), October 19-21, 2017, Elazığ, Turkey.
2. Özbaş, Z., Özkahraman, B., **Bal, A.**, “Drug Release Behavior of 5-fluoroacil Loaded Terpolymeric Nanogels”, 11th Nanoscience and Nanotechnology Conference (NanoTR-11), June 22-25, 2015, Middle East Technical University, Ankara, Turkey.
3. Yılmaz, Ö., **Bal, A.**, Gök, M.K., Güçlü, G., Özgümüş, S., “Structural, Morphological and Swelling Properties of Novel (NaAA-co-HEA)/Mg-Al-Cl Layered Double Hydroxide Nanocomposite Hydrogels”, Chemical Engineering and Chemical Technologies Conference (Chemtech ’14), October 23-25, 2014, Yildiz Technical University, Istanbul, Turkey.
4. **Bal, A.**, Cevher, E., Özgümüş, S., “A Novel Tumor Targeted Nanoparticles Based on Hyperbranched Polyester: Synthesis and Characterization”, The 13th Mediterranean Congress of Chemical Engineering (13MCCE), September 30-October 3, 2014, Gran Via Venue, Barcelona, Spain.
5. Özkahraman, B., **Bal, A.**, “Methacrylic Acid Based Hydrogels as Paracetamol Carrier for Controlled Release Systems”, The 13th Mediterranean Congress of Chemical Engineering (13MCCE), September 3– October 3, 2014, Gran Via Venue, Barcelona, Spain.

6. Kiriş, B., Deniz, M., **Bal, A.**, Emik, S., Basan, S., "Adsorption of Humic Acid from Aqueous Solution by Polyaniline/Clinoptilolite Composites", The 13th Mediterranean Congress of Chemical Engineering (13MCCE), September 30 – October 3, 2014, Gran Via Venue, Barcelona, Spain.
7. Arda, B., **Bal, A.**, Acar, I., "Investigations of Thermal Oxidative Degradation-Kinetics of PET, PE and PS Using Kissinger, Flynn-Wall-Ozawa and Coats-Redfern Methods", 44th IUPAC World Chemistry Congress, August 11-16, 2013, The Istanbul Convention & Exhibition Centre (ICEC), Istanbul, Turkey.
8. **Bal A.**, Çepni, F.E., Çakır Ö., Acar, I., Güçlü, G., "Hydrogel-Silver Nanocomposites for Antibacterial Applications", 8th International Conference on the Environmental Effects of Nanoparticles and Nanomaterials, July 3-5, 2013, Aix-Marseille University, Aix-en-Provence, France.
9. Çam, Ç., **Bal, A.**, Güçlü, G., "Modified Epoxy Ester Synthesized from Postconsumer PET Bottles", Paint & Coating Industry Raw Materials, Auxiliary Products Exhiibition & Congress, September 13-15, 2012, İstanbul, Turkey.
10. Çam, Ç., **Bal, A.**, Güçlü, G., "Synthesis of Pure Monomer (BHET) from Post-Consumer PET Bottles for Use in the Production of Various Resins", International Conference on Recycling and Reuse, June 4-6, 2012, İstanbul, Turkey.
11. **Bal, A.**, Özkahraman B., Emik, S., Acar, I., "Usage of CMC Based Semi-IPN Hydrogels for Removal of Basic Dyes from Wastewater", EurAsia Waste Management Symposium, November 14-16, 2011, Halic Congress Center, Istanbul, Turkey.
12. **Bal, A.**, Acar, I., Güçlü, G., "Removal of Basic Dyes from Aqueous Solutions Using Depolymerization Intermediates of Waste PET as Alternative Adsorbent", EurAsia Waste Management Symposium, November 14-16, 2011, Halic Congress Center, Istanbul, Turkey.
13. **Bal, A.**, Özkahraman, B., Acar, I., Güçlü, G., Özyürek, M., "Usage of Grafted Chitosan Beads as Adsorbents for Copper(II) Ions Removal from Aqueous Solutions" European Polymer Congress (EPF 2011), June 26 - July1, 2011, Granada, Spain.
14. **Bal, A.**, Güçlü, G., Acar, I., İyim, T.B., "A New Silica Modified Alkyd-Phenol Formaldehyde Type Resins", Rolduc Polymer Meetings (i-Polymat 2010), May 16-19, 2010, Rolduc Abbey, Kerkrade, The Netherlands.
15. **Bal, A.**, Güçlü, G., Acar, I., İyim, T.B., "Effects of Organo Clay to Chemical Resistance of Alkyd-Amino Resins", 6th Chemical Engineering Conference for Collaborative Research in Eastern Mediterranean Countries (EMCC 6), March 7-12, 2010, Atlantis Hotel, Belek, Antalya, Turkey.
16. **Bal, A.**, İyim, T.B., Güçlü, G., Pabuccuoğlu, S., "Silika Nanoparçacık İçeren Su Esası Akrilik Emülsiyonlarının Hazırlanması ve Film Özelliklerinin İncelenmesi", 7TH International Paint & Auxiliary Products Industry Congress Paint & Auxiliary Products Industry Exhiibition, April 10-12, 2008, İstanbul, Turkey.

7.4. International books published, or chapters from a book

7.5. Articles published in national refreed journals

1. **Bal, A.**, Cevher, E., Pabuccuoğlu, S. K., "Hydroxyl-Functionalized Hyperbranched Aliphatic Polyesters Based an 1, 1, 1-Tris (Hydroxymethyl) Propane (Tmp) as a Core Molecule: Synthesis and Characterization", Sigma Journal of Engineering and Natural Sciences, 35(2), 239-251, (2017).
2. **Bal, A.**, Özkahraman, B., Gök, M.K., Acar, I., "Sodyum Akrilat Esaslı Hidrojel ve Kriyojellerin Şişme, Adsorpsiyon ve Mekanik Özelliklerinin İncelenmesi", Pamukkale Üniversitesi Mühendislik Bilimleri Dergisi, 20(7), 258-265, 2014.
3. Acar, I., **Bal, A.**, Güçlü, G., "Atık PET'in Eşzamanlı Glikoliz-Aminoliz Reaksiyonundan Elde Edilen Ürünlerin Alkid Reçinelerinin Üretiminde Kullanımı" Katı Atık ve Çevre Dergisi, 76, 38-45 (2009).

7.6. Assertions presented in national scientific congresses and published in the proceedings.

1. Özkahraman, B., **Bal, A.**, "Ni(II) İyonu Baskılanmış Aljinat Esaslı Biyoadsorbanların Sentezi ve İyon Seçiciliğinin Belirlenmesi" 10. Ulusal afinite teknikleri Kongresi, 26-18 Mayıs 2016, Ayvalık, Balıkesir.
2. Özbaş, Z., **Bal, A.**, Özkahraman, B., "2-(Dietilamino)etil metakrilat Esaslı Mikro/Nano Partiküler Sistemlerin Geliştirilmesi", 27. Ulusal Kimya Kongresi, 23-28 Ağustos 2015, Çanakkale Onsekiz Mart Üniversitesi, Çanakkale.
3. **Bal, A.**, Özkahraman, B., "Terpolimerik Hidrojellerin Sentezi ve Kontrollü İlaç Salım Sistemi olarak Kullanımı", Onbirinci Ulusal Kimya Mühendisliği Kongresi (UKMK11), 2-5 Eylül 2014, Eskişehir Osmangazi Üniversitesi, Eskişehir.
4. **Bal, A.**, Özkahraman, B., Gök, M.K., Acar, I., "Sodyum Akrilat Esaslı Hidrojel ve Kriyojellerin Sentezi ve Karakterizasyonu", XXVI. Ulusal Kimya Kongresi, 1-6 Ekim 2012, Lykia World Ölüdeniz-Fethiye, Muğla.
5. **Bal, A.**, Gök, M.K., Güçlü, G., Pabuccuoğlu, S., "(Mg-Al) LDH İçeren Akrilik Monomer Esaslı Yeni Nanokompozit Hidrojellerin Sentezi, Karakterizasyonu ve Şişme Davranışlarının İncelenmesi", IV. Ulusal Polimer Bilim ve Teknolojisi Kongresi, 5-8 Eylül 2012, Çanakkale Onsekiz Mart Üniversitesi, Çanakkale.
6. **Bal, A.**, Acar, I., Güçlü, G., "Silika Katkılı Alkid-Melamin Formaldehid Reçinelerinin Bozunma Kinetiklerinin Termogravimetrik Analiz Yöntemi ile İncelenmesi", Onuncu Ulusal Kimya Mühendisliği Kongresi (UKMK10), 3-6 Eylül 2012, Koç Üniversitesi, İstanbul.
7. **Bal, A.**, Özkahraman, B., Acar, I., Emik, S., Atık Sulardan Metilen Mavisi Boyar Maddesinin P(NIPAM-ko-IA) Hidrojelleri ile Uzaklaştırılması", 3. Ulusal Katı Atık Yönetimi Kongresi (UKAY 2011), 7-10 Eylül 2011, Uluslararası Kıbrıs Üniversitesi.
8. Emik, S., Acar, I., **Bal, A.**, Özkahraman, B., "Sentetik Boya Karışımlarının Poli(akrilik asit) Hidrojelleri ile Renksizleştirilmesi", 3. Ulusal Katı Atık Yönetimi Kongresi (UKAY 2011), 7-10 Eylül 2011, Uluslararası Kıbrıs Üniversitesi, Kıbrıs.
9. **Bal, A.**, Özkahraman, B., Emik, S., Acar, I., "Endüstriyel Atık Boyar Madde Uzaklaştırmasında Semi-IPN Jellerin Kullanımı", 3. Ulusal Katı Atık Yönetimi Kongresi (UKAY 2011), 7-10 Eylül 2011, Uluslararası Kıbrıs Üniversitesi, Kıbrıs.

10. **Bal, A.** Tuna, Ö. Acar, I. Güçlü, G. "Atık PET Şişelerin Geri Kazanım Ürünlerinin Boyar Madde Uzaklaştırılmasında Kullanımı", 1.Uluslararası Kimya Mühendisliği Öğrenci Kongresi, 12-14 Mayıs 2011, Hıtit Üniversitesi, Çorum.
11. **Bal, A.**, Pabuccuoğlu, S., "TİPTA NANOTEKNOLOJİ", (Derleme-Davetli konuşturma), Kocaeli Üniversitesi, Nanoteknoloji Günleri 2011, 7-8 Mayıs 2011, Kocaeli Üniversitesi, Kocaeli.
12. **Bal, A.**, Acar, I., Güçlü, G., "Atık PET'in Kimyasal Geri Kazanımından Elde Edilen Ara Ürünlerin Karakterizasyonu", 2.Uluslararası Atık Yönetimi Kongresi (UKAY2010), 18-20 Ekim 2010, Mersin Üniversitesi, Mersin.
13. **Bal, A.**, Acar, I., Güçlü, G., "Organo Kilin Alkid Fenol Formaldehit Reçinelerinin Kimyasal Dayanımı Üzerine Etkisi", Dokuzuncu Ulusal Kimya Mühendisliği Kongresi (UKMK9), 22-25 Haziran 2010, Gazi Üniversitesi, Ankara.
14. Acar, I., **Bal, A.**, Güçlü, G., "Atık PET'in Eşzamanlı Glikoliz-Aminoliz Reaksiyonundan Elde Edilen Ara Ürünlerin Alkid Reçinelerinin Üretiminde Kullanımı", Ulusal Katı Atık Yönetimi Kongresi (UKAY 2009), 27-29 Mayıs 2009, Anadolu Üniversitesi, Eskişehir.
15. **Bal, A.**, İyim, T.B., Güçlü, G., Pabuccuoğlu, S., "Çevre Dostu Yüksek Performanslı Nanokil içeren Su Esaslı Akrilik Emülsiyonlarının Elde Edilmesi ve Film Özelliklerinin İncelenmesi", Ulusal Katı Atık Yönetimi Kongresi (UKAY 2009), 27-29 Mayıs 2009, Anadolu Üniversitesi, Eskişehir.

7.7. Other publications

8. Projects

1. "Development of amphiphilic hyperbranched polymeric nanoparticulate systems for targeted cancer therapy" (117Z732-TUBITAK), 2018-2020, Principal Investigator.
2. "Preparation and in vitro characterization of drug carrier tissue scaffolds by three-dimensional bioprinting for the treatment of bone defects, and its evaluation in the model of in vivo calvarial bone injury" (217S365-TUBİTAK), 2018-2021, Researcher.
3. "Fabrication of multi layered skin tissues by 3D Bioprinters, improvement of them via microfluidic bioreactors, evaluation of them for skin on a chip platforms and investigation of them for possible uses in bionic arm applications" (217M756 TUBİTAK), 2018-2020, Advisor.
4. "Production of Tissue Specific Bioinks for 3D Bioprinters" (2170619-TUBİTAK), 2018-2019, Advisor.
5. "High-Throughput Microenvironment Regulation for Chondrogenesis" (5R01AR066193-02-NIH R01), 2016-2017, Post-Doc Researcher.
6. "Development of Polymeric Nano/Microparticles For Drug Carrier Systems" (19002-Hıtit University Research Fund), 2014-2015, Researcher.

7. "Development of Targeted Polymeric Nanoparticle Systems" (15349- Istanbul University Research Fund), 2009-2015, Principal Investigator.
8. "Production and Applications of Nano Particles Containing Alkyd-Amino Resin Which is Suitable For Oven-cured Paint" (3253-Istanbul University Research Fund), 2009-2011, Researcher.
9. "Crosslinked Chitosan Graft Copolymers Heavy Metal Removal From Aqueous Solutions" (11610-Istanbul University Research Fund), 2010 -2011, Researcher.
10. "The Using of Intermediates Obtained by Simultaneous Glycolysis-Aminolysis and Hydrolysis-Aminolysis Reactions of Waste PET for Water Borne Alkyd Resins Production (3368- Istanbul University Research Fund), 2009-2011, Researcher.

9. Administrative Services

Istinye University, Faculty of Pharmacy, Head of Department of Analytical Chemistry

10. Professional Affiliations

11. Fellowships and Awards

TUBITAK 2219- Postdoctoral Fellowship for Research Abroad (1 year, Harvard University, USA)

TUBİTAK Publication Incentive Award - 2010

TUBİTAK Publication Incentive Award - 2011

TUBİTAK Publication Incentive Award - 2012

TUBİTAK Publication Incentive Award - 2013

12. Please fill out the chart below for undergraduate and graduate courses you have given in the last 2 years.

Academic Year	Semester	Course	Weekly Course Hours		Number of Students
			Theoretical	Practical	
2017-2018	Fall	Basic Chemistry and Laboratory I	2	2	80
		General Chemistry (Faculty of Pharmacy)	2	1	37
	Spring	Basic Calculations in Pharmacy	2	0	7
		Scaffolds in Tissue Engineering	4	0	7
	Fall				
	Spring				

Note: If given, summer courses should also be added to the chart.