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**Research Interests:** Soft condensed matter, bioanalytical chemistry, biophysical chemistry

## 1. EDUCATION, EXAMS & CERTIFICATIONS

- 2017 Associate Professor of Biochemistry (granted by the Inter-University Council of Turkey after a positive evaluation of publications and an oral examination)
- 2007 Ph.D. in Chemistry  
University of Massachusetts Amherst, MA, USA
- 06/07/2001 B.S. in Chemical Engineering  
Boğaziçi University, Istanbul, Turkey

## 2. PROFESSIONAL APPOINTMENTS AND POSITIONS

- 2018-present Associate professor, Department of Chemistry, Boğaziçi University, (Istanbul, Turkey)
- 2018 Visiting professor on sabbatical leave, Department of Chemical Engineering, Massachusetts Institute of Technology
- 2009 – 2018 Assistant professor, Department of Chemistry, Boğaziçi University (Istanbul, Turkey)
- 2007 – 2009 Postdoctoral Fellow, Department of Biomedical Engineering, Northwestern University, Evanston, IL, United States

## 3. SELECTED PUBLICATIONS & PATENTS

Karabıyık Acar, Ö., Bedir, S., **Kayıtmazer, A.B.**, Torun Kose, G., “Chondro-inductive hyaluronic acid/chitosan coacervate-based scaffolds for cartilage tissue engineering”, *International Journal of Biological Macromolecules* 2021, 188, 300-312.

Kim, S., Sureka, H.V., **Kayıtmazer, A.B.**, Wang, G., Swan, J.W., Olsen, B.D., “Effect of Protein Surface Charge Distribution on Protein–Polyelectrolyte Complexation”, *Biomacromolecules* 2020, 21, 8, 3026–3037.

Karabiyik, O., **Kayitmazer, A.B. (co-corresponding author)**, Torun Kose, G., “Hyaluronic Acid/Chitosan Coacervate-Based Scaffolds”, *Biomacromolecules* 2018, 19(4), 1198-1211.

**Kayitmazer, A.B. (corresponding author)**, “Thermodynamics of complex coacervation”, *Advances in Colloid and Interface Science*, 2017, 239, 169-177.

**Kayitmazer, A.B. (corresponding author)**, Koksall, A. F., Kilic Iyilik, E.; “Complex coacervation of hyaluronic acid and chitosan: Effect of pH, ionic strength, charge density, chain length and charge ratio”, *Soft Matter* 2015, 11, 8605-8612.

Gamze Torun Köse, **A. Basak Kayitmazer**, Özge Karabiyik Acar , “Method of Coacervate Production and Application of Coacervates for Tissue Scaffolds”, (patent application number: 2017/13643, in review at the *Turkish Patent and Trademark Office*)

#### 4. HONORS/AWARDS

- 2011 L'oréal Turkey Fellowship for Young Women in Science (Subtopic: Materials Science)
- 2010 Scientific and Technological Research Council of Turkey (TÜBİTAK) Supporting Award to Encourage Participation into EU 7<sup>th</sup> Framework Programs

#### 5. GRANTS AND FELLOWSHIPS

- 2022-2023 Boğaziçi University Research Fund (BAP). Title: Thermodynamic Investigation of Polyampholyte Coacervates.
- 2022-2023 Boğaziçi University Research Fund. Title: Protein Encapsulation within Oppositely Charged Polyelectrolyte Pairs.
- 2021-2024 TÜBİTAK (Scientific and Technological Research Council of Turkey) Research Grant (1001). Title: Polyampholyte Coacervation for Enzyme Immobilization.
- 2021-2022 TÜBİTAK Grant (1002). Title: Thermodynamic Investigation of the effect of Hoffmeister Ions on Complexation and Coacervation of Hyaluronic Acid with Chitosan.
- 2019-2021 Boğaziçi University Research Fund. Title: The Effect of Surface Curvature of Macromolecules on Coacervation and Dissociation of Formed Coacervates via Anionic Ions on Hofmeister Series.
- 2018-2022 The International One Belt One Road Collaboration Project of Shanghai. Title: Nanogel coating by flash nano-precipitation for vascular repair.

- 2018 2219 TÜBİTAK-BİDEB – Fellowship for Research Abroad for Post-graduate Scientists. Title: Effect of Protein Charge Anisotropy on Complexation and Coacervation with Polyelectrolytes.
- 2017-2018 TÜBİTAK Research Grant (3001). Title: Thermodynamic Investigation of Complex Coacervation between Two Oppositely Charged and Semi-Flexible Biopolymers.
- 2016-2017 National Natural Science Foundation of China - Research Fund for International Young Scientists. Title: Rheology of Complex Coacervates between Hyaluronic Acid and Chitosan. Role: Co-PI
- 2014-2015 Boğaziçi University Infrastructure Research Fund. Title: Isothermal Titration Calorimetry for Investigating Ligand-Host Interactions.
- 2014-2016 Boğaziçi University Doctorate Project Research Fund. Title: Hydroxyapatite-Polyelectrolyte Coacervates.
- 2011-1013 Boğaziçi University Infrastructure Research Fund. Title: Determination of the Inner Structure and Dynamics of Materials by Static & Dynamic Light Scattering.
- 2011-2012 L'oréal Turkey Fellowship for Young Women in Science (supported by UNESCO and Turkish Academy of Sciences, TÜBA). Title: Nano-, Meso-, and Microstructure of Polyelectrolyte-Polyelectrolyte Coacervates.
- 2010-2013 Boğaziçi University Matching Fund. Title: Bone-like Biomimetic Material.
- 2010-2014 FP 7 Marie Curie International Reintegration Grant. Title: A Novel Biomimetic Bone-like Material.
- 2010-2011 Boğaziçi University Research Fund. Title: Polyelectrolyte-Polyelectrolyte Coacervates.

## 6. TEACHING EXPERIENCE

### Graduate-level courses

- Chem 586: Special Topics: Biomaterials
- Chem 584: Special Topics: Ionic Macromolecules
- Chem 583: Special Topics: Bioanalytical Chemistry
- Chem 58B: Special Topics: Biophysical Methods for the Detection of Non-covalent Interactions

### Undergraduate-level courses

- Chem 415: General Biochemistry
- Chem 105: Fundamentals of Chemistry
- Chem 104: General Chemistry II
- Chem 103: General Chemistry I