

## SAJJAD DADASHI SILAB

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## EDUCATION

- 2016-Present **PhD in Chemistry**  
Department of Chemistry, **Carnegie Mellon University**  
Research Area: *Photochemical Aspects of ATRP*  
Supervisor: Prof. Krzysztof Matyjaszewski
- 2013-2015 **MSc in Chemistry**  
Department of Chemistry, **Istanbul Technical University**  
Thesis Title: *Semiconductor Nanoparticles as Heterogeneous Photoinitiators for Conventional and Controlled Radical Polymerizations*  
Supervisor: Prof. Yusuf Yagci
- 2007-2012 **BSc in Polymer Engineering**  
Department of Polymer Engineering, **Amirkabir University of Technology**  
Graduation Project: *Dispersion Polymerization for Synthesis of Large Polymeric Particles*  
Supervisor: Assoc. Prof. Hormoz Eslami



## RESEARCH INTERESTS

Polymers and Polymer Chemistry, Macromolecular Engineering, Complex Macromolecular Architectures, Controlled Radical Polymerizations, Photopolymerization and Photochemistry, Click Chemistry



## PUBLICATIONS

17. Dadashi-Silab S., Pan X., Matyjaszewski K., Photoinduced Iron-Catalyzed Atom Transfer Radical Polymerization with ppm Levels of Iron Catalyst under Blue Light Irradiation, *Macromolecules*, **2017**, *50*, 7967-7977
16. Wang Z., Pan X., Yan J., Dadashi-Silab S., Xie G., Zhang J., Wang Z., Xia H., Matyjaszewski K., Temporal Control in Mechanically Controlled Atom Transfer Radical Polymerization Using Low ppm of Cu Catalyst, *ACS Macro Lett.*, **2017**, *6*, 546-549
15. Dadashi-Silab S., Pan X., Matyjaszewski K., Phenyl Benzo[b]phenothiazine as a Visible Light Photoredox Catalyst for Metal-Free Atom Transfer Radical Polymerization, *Chem. Eur. J.*, **2017**, *23*, 5972-5977
14. Pan X., Malhotra N., Dadashi-Silab S., Matyjaszewski K., A Simplified Fe-Based PhotoATRP Using Only Monomers and Solvent, *Macromol. Rapid Commun.*, **2017**, *38*, 1600651
13. Dadashi-Silab S., Doran S., Yagci Y., Photoinduced Electron Transfer Reactions for Macromolecular Syntheses, *Chem. Rev.*, **2016**, *116*, 10212-10275
12. Dadashi-Silab S., Yagci Y., Copper(II) Thioxanthone Carboxylate as a Photoswitchable Photocatalyst for Photoinduced Click Chemistry, *Tetrahedron Lett.*, **2015**, *56*, 6440-6443
11. Kara M., Dadashi-Silab S., Yagci Y., Phenacyl Ethyl Carbazolium as a Long Wavelength Photoinitiator for Free Radical Polymerization, *Macromol. Rapid Commun.*, **2015**, *36*, 2070-2075 (featured on MaterialsViews)
10. Dadashi-Silab S., Aydogan C., Yagci Y., Shining a Light on an Adaptable Photoinitiator: Advances in Photopolymerizations Initiated by Thioxanthenes, *Polym. Chem.*, **2015**, *6*, 6595-6615

9. Taskin O. S., [Dadashi-Silab S.](#), Weber J., Kiskan B., Yagci Y., Highly Efficient and Reusable Microporous Schiff Base Network Polymer as Heterogeneous Catalyst for CuAAC Click Reaction, *Macromol. Chem. Phys.*, **2015**, 216, 1746-1753 (*Most Accessed paper in 2015; Hottest Article in Catalysis, Wiley Catalysis*)
8. Yetiskin O\*, [Dadashi-Silab S.\\*](#), Khan S. B., Asiri A. M., Yagci Y., Visible-Light-Induced Copper(I)-Catalyzed Azide-Alkyne Cycloaddition Initiated by Zinc Oxide Semiconductor Nanoparticles, *Asian J. Org. Chem.*, **2015**, 4, 442-444 (*Highly cited paper of the journal since 2015*)
7. [Dadashi-Silab S.](#), Yar Y., Acar H. Y., Yagci Y., Magnetic Iron Oxide Nanoparticles as Long Wavelength Photoinitiators for Free Radical Polymerization, *Polym. Chem.*, **2015**, 6, 1918-1922
6. [Dadashi-Silab S.](#), Kiskan B., Antonietti M., Yagci Y., Mesoporous Graphitic Carbon Nitride as a Heterogeneous Catalyst for Photoinduced Copper(I)-Catalyzed Azide-Alkyne Cycloaddition, *RSC Adv.*, **2014**, 4, 52170-52173
5. [Dadashi-Silab S.](#), Tasdelen M. A., Yagci Y., Photoinitiated Atom Transfer Radical Polymerization: Current Status and Future Perspectives, *J. Polym. Sci., Part A: Polym. Chem.*, **2014**, 52, 2878-2888 (*highly cited paper of the journal since 2014*)
4. [Dadashi-Silab S.\\*](#), Bildirir H.\*, Dawson R., Thomas A., Yagci Y., Microporous Thioxanthone Polymers as Heterogeneous Photoinitiators for Visible Light Induced Free Radical and Cationic Polymerizations, *Macromolecules*, **2014**, 47, 4607-4614
3. [Dadashi-Silab S.](#), Asiri A. M., Khan S. B., Alamry K. A., Yagci Y., Semiconductor Nanoparticles for Photoinitiation of Free Radical Polymerization in Aqueous and Organic Media, *J. Polym. Sci., Part A: Polym. Chem.*, **2014**, 52, 1500-1507
2. [Dadashi-Silab S.](#), Tasdelen M. A., Kiskan B., Wang X. C., Antonietti M., Yagci Y., Photochemically Mediated Atom Transfer Radical Polymerization Using Polymeric Semiconductor Mesoporous Graphitic Carbon Nitride, *Macromol. Chem. Phys.*, **2014**, 215, 675-681 (*Most Accessed paper in 2014; highly cited paper of the journal since 2014*)
1. [Dadashi-Silab S.](#), Tasdelen M. A., Asiri A. M., Khan S. B., Yagci Y., Photoinduced Atom Transfer Radical Polymerization using Semiconductor Nanoparticles, *Macromol. Rapid Commun.*, **2014**, 35, 454-459 (*invited contribution to Precisely Controlled Polymer Architectures via Molecular Engineering; highly cited paper of the journal since 2014*)

\* Co-first authors.

*h*-index: **10** | 450+ citations



## BOOK CHAPTERS

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1. Yagci Y., Tasdelen M. A., Kiskan B., Ciftci M., [Dadashi-Silab S.](#), Taskin O. S., Yilmaz G., Visible Light Induced Atom Transfer Radical Polymerization for Macromolecular Syntheses, in *Controlled Radical Polymerization: Mechanisms*, Eds. Matyjaszewski K., Sumerlin B. S., Tsarevsky N. V., Chiefari J.; American Chemical Society: Washington, DC, 2015; Vol. 1187, pp 145-158. (*Peer-Reviewed Book Chapter*)



## SELECTED CONFERENCE PROCEEDINGS

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7. [Dadashi-Silab S.](#), Pan X., Matyjaszewski K., Visible Light-Induced Atom Transfer Radical Polymerization, *254<sup>th</sup> ACS National Meeting*, Washington, DC, 2017 (*Poster presentation*)
6. Yagci Y., Yilmaz G., Taskin O. S., [Dadashi-Silab S.](#), Tasdelen M. A., New approaches for photoinduced CuAAC click reactions, *251<sup>st</sup> ACS National Meeting*, San Diego, CA, 2016 (*Oral presentation by Prof. Y. Yagci*)
5. [Dadashi-Silab S.](#), Yagci Y., Copper(II)-thioxanthone: a photoswitchable catalyst for the copper(I)-catalyzed azide-alkyne cycloaddition, *International Symposium on Polymers from Renewable Resources*, 2015, Istanbul (*Poster presentation*)
4. Doran S., Murtezi E., [Dadashi-Silab S.](#), Ciftci M., Yilmaz G., Tasdelen M. A., Yagci Y., Photoinduced ATRP and CuAAC click reactions and their combinations for macromolecular syntheses, *249<sup>th</sup> ACS National Meeting*, Denver, CO, 2015 (*Oral presentation by Prof. Y. Yagci*)
3. [Dadashi-Silab S.](#), Bildirir H., Dawson R., Thomas A., Yagci Y., Microporous Thioxanthone Polymers as Heterogeneous

Photoinitiators for Visible Light Induced Free Radical and Cationic Polymerizations, 5<sup>th</sup> EuCheMS Congress, 2014, Istanbul (Poster presentation)

2. Yagci Y., Tasdelen M. A., Kiskan B., Ciftci M., **Dadashi-Silab S.**, Visible light-induced atom transfer radical polymerization for macromolecular syntheses, 248<sup>th</sup> ACS National Meeting, San Francisco, CA, 2014 (Oral presentation by Prof. Y. Yagci)
1. **Dadashi-Silab S.**, Eslami H., Synthesis of Large Poly(Methyl Methacrylate) and Various Nonspherical Shaped Particles via Dispersion and Seeded Dispersion Polymerization, 10<sup>th</sup> International Seminar on Polymer Science and Technology, 2012, Tehran (Oral presentation by Prof. H. Eslami)



## RESEARCH EXPERIENCE

- 2016-Now** ● **Research Assistantship, Matyjaszewski Polymer Research Group**
- Controlled Radical Polymerization
  - Photochemical ATRP
- Supervisor: Prof. Krzysztof Matyjaszewski
- 2013-2015** ● **Research Assistantship, Yagci Polymer Research Group**
- Photoinduced Conventional and Controlled Radical Polymerization
  - Semiconducting Nanoparticles as Photocatalyst in Polymerizations
  - Photoinduced Click Chemistry
- Supervisor: Prof. Yusuf Yagci
- 2011-2012** ● **Research Assistantship, Polymer Research Laboratory**
- Dispersion and Seeded Dispersion Polymerization
- Supervisor: Assoc. Prof. Hormoz Eslami



## SKILLS

### ANALYTICAL & LAB SKILLS:

NMR spectroscopy, UV- Vis spectroscopy, FTIR spectroscopy, GPC, DSC and PhotoDSC, optical and electron microscopy

### COMPUTER SKILLS:

Microsoft Office, OriginLab, ChemDraw, EndNote, Photoshop, InDesign

### LANGUAGE SKILLS:

Turkish (Native), English (Advanced), Farsi (Advanced)



## PROFESSIONAL MEMBERSHIPS & FELLOWSHIPS

- American Chemical Society (ACS)
- ACS Polymer Division
- Royal Society of Chemistry
- Iranian Polymer Society
- The Scientific and Technological Research Council of Turkey (TUBITAK) (Research Fellowship)



## REFERENCES

### Prof. Krzysztof Matyjaszewski

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### Prof. Yusuf Yagci

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