

SAJJAD DADASHI SILAB

Graduate Research Assistant



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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

19. Wang Y., **Dadashi-Silab S.**, Matyjaszewski K., Photoinduced Miniemulsion Atom Transfer Radical Polymerization, *ACS Macro Lett.*, **2018**, 7, 720-725
18. **Dadashi-Silab S.**, Matyjaszewski K., Temporal Control in Atom Transfer Radical Polymerization Using Zerovalent Metals, *Macromolecules*, **2018**, DOI: 10.1021/acs.macromol.8b00698
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 (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
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
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
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

* Co-first authors.

h-index: 12 | +600 citations



BOOK CHAPTERS

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

7. **Dadashi-Silab S.**, Pan X., Matyjaszewski K., Visible Light-Induced Atom Transfer Radical Polymerization, *254th 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, *251st 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, *249th 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, *5th 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, *248th 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, *10th 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)