

SAJJAD DADASHI SILAB

Graduate Research Assistant



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EDUCATION

- 2016-Present** ● **PhD in Chemistry**
Department of Chemistry, **Carnegie Mellon University**
Research Area: *External Control in 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



PUBLICATIONS

21. Wang Y., **Dadashi-Silab S.**, Lorandi, Matyjaszewski K., Photoinduced Atom Transfer Radical Polymerization in ab initio Emulsion, *Polymer*, **2019**, DOI: 10.1016/j.polymer.2019.01.034
20. **Dadashi-Silab S.**, Lorandi F., Fantin M., Matyjaszewski K., Redox-Switchable Atom Transfer Radical Polymerization, *Chem. Commun.*, **2019**, 55, 612-615
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**, 51, 4250-4258
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: **14** | +700 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 reac-

tions, 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.**, Bildiri 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 Group**
 - Controlled Radical Polymerization
 - Photochemical ATRPSupervisor: 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 ChemistrySupervisor: Prof. Yusuf Yagci
- 2011-2012** ● **Research Assistantship, Polymer Research Laboratory**
 - Dispersion and Seeded Dispersion PolymerizationSupervisor: 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 (RSC)
- American Association for the Advancement of Science (AAAS)
- Iranian Polymer Society
- The Scientific and Technological Research Council of Turkey (TUBITAK) (Research Fellowship)