

# Quentin Michaudel

**Address:**

Texas A&M University  
Department of Chemistry  
College Station, TX 77843-3255

**Telephone:** (979) 458-2079**Email:** [quentin.michaudel@chem.tamu.edu](mailto:quentin.michaudel@chem.tamu.edu)**Website:** [www.michaudellab.org](http://www.michaudellab.org)

## PROFESSIONAL EXPERIENCE

---

**Assistant Professor**

Department of Chemistry, Texas A&M University 2018–present  
Department of Materials Science & Engineering, Texas A&M University 2019–present  
Interests: Organic Chemistry, Polymer Science, Conjugated Materials, Sustainability

**Postdoctoral Associate**

2015–2018

Cornell University, *Advisor:* Professor Brett P. Fors

- Development and mechanistic studies of a photocontrolled cationic polymerization
- Synthesis of biorenewable, sustainable monomers

**Graduate Research Assistant**

2010–2015

The Scripps Research Institute, *Advisor:* Professor Phil S. Baran

- Development of a C–H amination reaction for unactivated sp<sup>3</sup> carbons
- Synthesis of natural product–derived drug candidates via C–H oxidations
- Mechanistic studies of a Favorskii-type enzymatic reaction

**Masters' Research**

Spring–Summer 2009

The Scripps Research Institute, *Advisor:* Professor Phil S. Baran

- Enantioselective synthesis of biologically active metabolites of clopidogrel

## EDUCATION

---

**The Scripps Research Institute, La Jolla**

2010–2015

Ph.D. in Chemistry

**École Normale Supérieure de Lyon (France)**

2008–2010

M.S. with honors in Chemistry

**École Normale Supérieure de Lyon (France)**

2007–2008

B.S. with honors in Physics and Chemistry

**Lycée Sainte-Geneviève, Versailles (France)**

2004–2007

*Preparatory classes in science for competitive entrance exam to the École Normale Supérieure*

## AWARDS

---

Selected to participate in the Cottrell Scholars Collaborative New Faculty Workshop	2018
SciFinder Future Leaders Award	2015
Bristol-Myers Squibb Graduate Fellowship in Synthetic Organic Chemistry	2014–2015
TSRI Graduate Student Symposium Outstanding Presentation Award	2013
Laureate of Lions Club/CERN Physics Contest	2004

## PUBLICATIONS

---

(† signifies co-authorship, undergraduate co-authors are underlined)

- 16) Kulow, R. W.; Wu, J. W.; Kim, C.; **Michaudel, Q.**\* Synthesis of Unsymmetrical Sulfamides and Polysulfamides *via* Sufex Click Chemistry. *Chem. Sci.* **2020**, *11*, 7807–7812.
- 15) Hsu, T.-W.; Kim, C.; **Michaudel, Q.**\* Stereoretentive Ring-Opening Metathesis Polymerization to Access All-cis Poly(p-phenylenevinylene)s with Living Characteristics. *J. Am. Chem. Soc.* **2020**, *142*, 11983–11987.
- 14) Kottisch, V.; O’Leary, J.; **Michaudel, Q.**; Stache, E. E.; Lambert, T. H.; Fors, B. P. Controlled Cationic Polymerization: Single-Component Initiation Under Ambient Conditions. *J. Am. Chem. Soc.* **2019**, *141*, 10605–10609.
- 13) **Michaudel, Q.**; Chauviré, T.; Kottisch, V.; Supej, M. J.; Stawiasz, K. J.; Shen, L.; Zipfel, W. R.; Abruña, H. D.; Freed, J. H.; Fors, B. P. Mechanistic Insight into the Photocontrolled Cationic Polymerization of Vinyl Ethers. *J. Am. Chem. Soc.* **2017**, *139*, 15530–15538.
- 12) Kottisch, V.; **Michaudel, Q.**; Fors, B. P. Photocontrolled Interconversion of Cationic and Radical Polymerizations. *J. Am. Chem. Soc.* **2017**, *139*, 10665–10668.
- 11) Trotta, J. T.; Jin, M.; Stawiasz, K. J.; **Michaudel, Q.**; Chen, W.-L.; Fors, B. P. Synthesis of Methylene Butyrolactone Polymers from Itaconic Acid. *J. Polym. Sci. Part A: Polym. Chem.* **2017**, *55*, 2730–2737.
- 10) **Michaudel, Q.**; Kottisch, V.; Fors, B. P. Cationic Polymerization: From Photoinitiation to Photocontrol. *Angew. Chem., Int. Ed.* **2017**, *56*, 9670–9679.
- 9) Kottisch, V.;† **Michaudel, Q.**;† Fors, B. P. Cationic Polymerization of Vinyl Ethers Controlled by Visible Light. *J. Am. Chem. Soc.* **2016**, *138*, 15535–15538.
- 8) **Michaudel, Q.**; Fors, B. P. Storing Information at the Molecular Level: Efficient Synthesis of “Barcode” Polymers. *Chem* **2016**, *1*, 23–24.
- 7) Dao, H.; Li, C.;† **Michaudel, Q.**;† Maxwell, B. D.; Baran, P. S. Direct Hydromethylation of Unactivated Olefins. *J. Am. Chem. Soc.* **2015**, *137*, 8046–8049.

- 6) Teufel, R.; Stull, F.; Meehan, M. J.; **Michaudel, Q.**; Dorrestein, P. C.; Palfey, B.; Moore, B. S. Biochemical Establishment and Characterization of EncM's Flavin-N5-Oxide Cofactor. *J. Am. Chem. Soc.* **2015**, *137*, 8078–8085.
- 5) Shaw, S. A.; Balasubramanian, B.; Bonacorsi, S.; Caceres Cortes, J.; Cao, K.; Chen, B-C.; Dai, J.; Decicco, C.; Goswami, A.; Guo, Z.; Hanson, R.; Humphreys, W. G.; Lam, P. Y. S.; Li, W.; Mathur, A.; Maxwell, B. D.; **Michaudel, Q.**; Peng, L.; Pudzianowski, A.; Qiu, F.; Su, S.; Sun, D.; Tymiak, A. A.; Vokits, B. P.; Wang, B.; Wexler, R.; Wu, D-R.; Zhang, Y.; Zhao, R.; Baran, P. S. Synthesis of Biologically Active Piperidine Metabolites of Clopidogrel: Determination of Structure and Analyte Development. *J. Org. Chem.* **2015**, *80*, 7019–7032.
- 4) **Michaudel, Q.**; Ishihara, Y.; Baran, P.S. Academia–Industry Symbiosis in Organic Chemistry. *Acc. Chem. Res.* **2015**, *48*, 712–721.
- 3) **Michaudel, Q.**; Journot, G.; Regueiro-Ren, A.; Goswami, A.; Guo, Z.; Tully, T. P.; Zou, L.; Ramabhadran, R. O.; Houk, K. N.; Baran, P. S. Improving Physical Properties via C–H Oxidation: Chemical and Enzymatic Approaches. *Angew. Chem., Int. Ed.* **2014**, *53*, 12091–12096.
- 2) Teufel, R.;<sup>†</sup> Miyanaga, A.;<sup>†</sup> **Michaudel, Q.**;<sup>†</sup> Stull, F.;<sup>†</sup> Louie, G.; Noel, J. P.; Baran, P. S.; Palfey, B.; Moore, B. S. Flavin-Mediated Dual Oxidation Controls an Enzymatic Favorskii-Type Rearrangement. *Nature* **2013**, *503*, 552–556.
- 1) **Michaudel, Q.**;<sup>†</sup> Thevenet, D.;<sup>†</sup> Baran, P. S. Intermolecular Ritter-Type C–H Amination of Unactivated sp<sup>3</sup> Carbons. *J. Am. Chem. Soc.* **2012**, *134*, 2547–2550.

## SELECTED PRESENTATIONS

---

Michaudel, Q. Modern Organic Reactions as Tools to Access Dynamic Networks and Stimuli-Responsive Polymers **ACS National Meeting Fall 2020**, San Francisco, SF, August 2020, *Invited oral presentation*.

Michaudel, Q. **Gordon Research Conference**, Newport, RI, July 2020, *Research poster (cancelled)*.

Michaudel, Q. Synthesis of Dynamic Networks via Click Chemistry **ACS National Meeting Spring 2020**, Philadelphia, PA, March 2020, *Oral presentation (cancelled)*.

Michaudel, Q. Modern Organic Reactions as Tools to Access Unique Polymer Architectures **Polymers for Advanced Technologies (PAT) Conference**, College Station, TX, August 2019, *Oral presentation*.

Michaudel, Q. Modern Organic Reactions as Tools to Access Unique Polymer Architectures **GPC Conference**, New Orleans, LA, July 2019, *Oral presentation*.

Kim, C.; Hancock, S. N.; Michaudel, Q. Modern Organic Reactions as Tools to Access Unique

Polymer Architectures, **Gordon Research Conference**, Mount Holyoke, MA, June 2019, *Research poster*.

Michaudel, Q.; Fors, B. P. Accessing Various Polymer Architectures With the Simple Flip of a Switch, **ACS National Meeting Fall 2018**, Boston, MA, August 2018. *Oral presentation*.

Michaudel, Q.; Kottisch, V.; Chauviré, T.; Fors, B. P. Photocontrolled Cationic Polymerization, **Gordon Research Conference**, Mount Holyoke, MA, June 2017, *Research poster*.

Michaudel, Q.; Trotta, J. T.; Fors, B. P. Synthesis of New Polymers from Biorenewable Itaconic Acid, **ACS National Meeting Fall 2016**, Philadelphia, PA, August 2016. *Oral presentation*.

Michaudel, Q.; Baran P. S. Oxidation of Complex Molecules: From Nature to the Flask, **SciFinder® Future Leaders in Chemistry**, Columbus, OH, August 2015. *Research poster*.

Michaudel, Q.; Baran, P. S. C–O, C–N, and C–C Bond Formation in Complex Molecules: From Nature to the Flask, **Bristol-Myers Squibb Chemistry Award Symposium**, Lawrenceville, NJ, April 2015. *Oral presentation*.

## TEACHING EXPERIENCE

---

**446: Organic Chemistry III** 2020–present  
*Texas A&M University, Department of Chemistry*

**610: Organic Reactions** 2018–present  
*Texas A&M University, Department of Chemistry, graduate level*

## MENTORING

---

**Graduate Students:** Katarzyna (Kate) Doktor (2019–present), Samuel Kempel (2019–present), Ting-Wei (Tim) Hsu (2019–present), Sarah Hancock (2018–present), Ryan Kulow (2018–present), Jiun-Wei (Alec) Wu (2018–present)

**Undergraduate Students:** Alexandria Arboleda (Texas A&M University '21, 2020–present), Cortlan Parrish (TAMU '21, 2020–present), Patrick Williams (TAMU '21, 2020–present), Luma Al-Mahbobi (TAMU '22, 2019–2020), Sara Valdez (TAMU '20, 2019–2020), Eric Comstock (TAMU '22, 2019–2020), Jinqun Suo (Jilin University China, '20, 2019–2020), Crystal Chi (NSF-REU, Texas A&M Kingsville '20, summer 2019), Guadalupe Florencio (TAMU '20, 2019), Yali Wu (TAMU '20, 2019), Randinu Pulukkody (TAMU '18, 2018–2019), Katie Stawiasz (Cornell University '18, 2016–2018)

## SERVICE ACTIVITIES

---

### *Mentorship*

Faculty advisor for Texas A&M University ACS POLY/PMSE student chapter 2018–present  
*Reviewing*

Referee: *Chem. Sci.*, *J. Am. Chem. Soc.*, *J. Org. Chem.*, *ACS Macro Lett.*, *Macromolecules*, *Org. Lett.*, *Polym. Chem.* 2015–present

*Conference service*

Session chair, PMSE Young Investigator Symposium, ACS San Diego 2019

Poster judge, POLY Sci-Mix, ACS Boston 2018

Session chair, POLY General Topics, ACS Boston 2018

**AFFILIATIONS**

---

Member, ACS, Division of Organic Chemistry 2016–present

Member, ACS, Division of Polymer Chemistry 2016–present

Member, ACS, Division of Polymeric Materials: Science and Engineering 2019–present