**Curriculum Vitae**

**(Last updated: 03-04-2019)**

**Byung-sun Jeon, Ph. D.**

**Education**

09/2010 – 05/2017 Doctor of Philosophy in Chemistry (advisor: Prof. Hung-wen Liu)

Department of Chemistry, The University of Texas at Austin, Austin, TX

03/2002 – 02/2004 Master of Science in Chemistry (advisor: Prof. Byeong-Moon Kim)

Department of Chemistry, Seoul National University, Seoul, South Korea

03/1998 – 02/2002 Bachelor of Science in Chemistry

Department of Chemistry, Seoul National University, Seoul, South Korea

**Research Experiences**

03/2019 – present Senior Researcher

Korea Institute of Science and Technology, Seoul, South Korea

08/2017 – 02/2019 Post-Doctoral Research Fellow

Department of Chemistry, University of California, Berkeley, CA

Advisor: Prof. Christopher J. Chang

09/2010 – 05/2017 Graduate Research Assistant

Department of Chemistry, The University of Texas at Austin

Advisor: Prof. Hung-wen Liu

01/2004 – 08/2010 Research Scientist

OLED, LG Chem, Ltd. Daejeon, South Korea

03/2002 – 02/2004 Graduate Research Assistant

Department of Chemistry, Seoul National University, Seoul, South Korea

Advisor: Prof. Byeong-Moon Kim

12/2000 – 02/2002 Undergraduate Research Assistant

Department of Chemistry, Seoul National University, Seoul, South Korea

Advisor: Prof. Byeong-Moon Kim

**Referred Journal Publications**

1) Noncanonical functions of *S*-adenosyl-l-methionine (SAM)-dependent methyltransferases. *Manuscript in preparation.*

2) Elucidation of side product during SpnM reaction and the importance of SpnF in the spinosyn A biosynthesis. *Manuscript in preparation*.

3) SpnL catalyzes an intramolecular Rauhut-Currier reaction during the biosynthesis of spinosyn A. *submitted*.

4) Zhongyue Yang, Song Yang, Peiyuan Yu, Yanwei Li, Charles Doubleday, Jiyong Park, Ashay Patel, **Byung-sun Jeon**, William K. Russell, Hyng-wen Liu, David H. Russell, and Kendall N. Houk, *Proc. Natl. Acad. Sci. USA*, **2018**, *115*, E848. Influence of water and enzyme SpnF on the dynamics and energetics of the ambimodal [6+4]/[4+2] cycloaddition.

5) **Byung-sun Jeon**, Mark W. Ruszczycky, William K. Russell, Geng-min Lin, Sei-hyun Choi, Namho Kim, Shao-An Wang, Yung-nan Liu, David, H. Russell, and Hung-wen Liu, *Proc. Natl. Acad. Sci. USA*, **2017**, *114*, 10408. Mechanistic Study of SpnF Catalyzed Transannular [4+2] Cycloaddition in Spinosyn A Biosynthesis by the Mesurement of *α*-Secondary Deuterium Kinetic Isotope Effects.

6) **Byung-sun Jeon**, Shao-An Wang, Mark W. Ruszczycky, and Hung-wen Liu, *Chem. Rev*. **2017**, *117*, 5367. Natural [4 + 2]-Cyclases.

7) Hak Joong Kim, Sei-hyun Choi, **Byung-sun Jeon**, Namho Kim, Rongson Pongdee, Qingquan Wu, and Hung-wen Liu, *Angew. Chem. Int. Ed*. **2014**, *53*, 13553. Chemoenzymatic Synthesis of Spinosyn A.

8) Eta A. Isiorho, **Byung-sun Jeon**, Nam Ho Kim, Hung-wen Liu, and Adrian T. Keatinge-Clay, *Biochemistry* **2014**, *53*, 4292. Structural Studies of the Spinosyn Forosaminyltransferase, SpnP.

9) Jin Kyu Choi, **Byung-sun Jeon**, Jong Hyun Cho, and B. Moon Kim, *Bull. Korean Chem. Soc*. **2010**, *31*, 735. Use of an Ionic Liquid as a Co-solvent for Recyclable Pd/C-mediated *N*-Debenzylation.

**Books**

Byung-Sun Jeon, How to prepare oral statement perfectly - Chemistry part, **2005**, Randomhouse Joongang.

Byung-Sun Jeon, Serial Articles of Be Scientists. Fall **2002** – Fall **2006**, Donga Science.

**Patents (International)**

1) New Materials for Organic Light Emitting Devices and OLED Using the Same, PCT Patent filing(May 2009), WO09/061,156.

2) Novel Diamine Derivatives and Organic Light Emitting Device Using the Same, PCT Patent filing(Nov 2008), WO08/133,459

3) The Methods for Fabricating High Efficiency Organic Electroluminescence Devices, US Patent filing(Sep 2008), US12/225,096.

4) Novel Compound and Organic Light Emitting Device Using the Same(2), US Patent filing(June 2008), US12/312,856.

5) Novel Compound and Organic Light Emitting Device Using the Same(1), US Patent filing(June 2008), US12/312,847.

6) New Compound and Organic Light Emitting Device Using the Same(10), US Patent filing(Jan 2007), US11/658,994.

7) New Compound and Organic Light Emitting Device Using the Same(9), US Patent filing(Jan 2007), US11/658,993.

8) New Compound and Organic Light Emitting Device Using the Same(8), US Patent filing(Feb 2007), US11/660,903.

9) New Compound and Organic Light Emitting Device Using the Same(7), US Patent filing(Feb 2007), US11/661,200.

10) New Compound and Organic Light Emitting Device Using the Same(6), US Patent filing(Feb 2007), US11/660,858.

11) New Compound and Organic Light Emitting Device Using the Same(5), US Patent filing(Feb 2007), US11/660,785.

12) New Compound and Organic Light Emitting Device Using the Same(4), US Patent filing(Jan 2007), US11/658,770.

13) New Compound and Organic Light Emitting Device Using the Same(3), US Patent filing(Feb 2007), US11/659,091.

14) New Compound and Organic Light Emitting Device Using the Same(2), US Patent filing(Feb 2007), US11/661,391.

15) New Compound and Organic Light Emitting Device Using the Same(1), US Patent filing(Feb 2007), US11/660,761.

16) Organic Light Emitting Diode Having High Efficiency and Method for Fabricating the Same, PCT filing(Mar 2007), WO07/105,906.

17) New Compound and Organic Light Emitting Device Using the Same, PCT filing(Dec 2007), PCT/KR2007/006176.

18) New Materials for Injecting or Transporting Holes and Organic Electroluminescence Devices Using the Same, PCT Patent filing(Mar 2005), WO05/090,512

**Patents (Domestic)**

1) New Compound and Organic Light Emitting Device Using the Same, Korea Patent filing.(Nov 2008) 2008-0110471.

2) New Anthracene Derivatives and Organic Electronic Device Using the Same, Korea Patent filing(Feb 2008), 2008-0015855.

3) New Compound and Organic Light Emitting Device Using the Same, Korea Patent filing(Nov 2007), 2007-0113852.

4) New Anthracene Derivatives and Organic Electronic Device Using the Same, Korea Patent filing(Nov 2007), 2007-0119320.

5) Organic Light Emitting Diode Having High Efficiency and Method for Fabricating the Same, Korea Patent filing(Mar 2007), 2007-0024816.

6) New Compound and Organic Light Emitting Diode Using the Same, Korea Patent filing(Dec 2006), 2006-0120560.

7) New Compound and Organic Light Emitting Diode Using the Same, Korea Patent filing(Dec 2006), 2006-0120557.

**Presentations**

1) **Byung-Sun Jeon,** Mark W. Ruszczycky, William K. Russell, Geng-min Lin, Namho Kim, Shao-An Wang, Sei-hyun Choi, Yung-nan Liu, John Patrick, David H. Russell, and Hung-wen Liu, **2016**, “*Mechanistic Study of SpnF Catalyzed Transannular [4+2] Cycloaddition in Spinsyn A Bionsynthesis by the Measurerment of α-Secondary Deuterium Kinetic Isotope Effects* ”, Poster presented at Scott Symposium, College Station, Texas

2) **Byung-Sun Jeon,** Mark W. Ruszczycky, William K. Russell, Geng-min Lin, Sei-hyun Choi, Namho Kim, Shao-An Wang, Yung-nan Liu, and Hung-wen Liu, **2014**, “*Measurement of α-Secondary Deuterium Kinetic Isotope Effects on the SpnF Catalyzed [4+2] Cycloaddition in Spinsyn Bionsynthesis*”, Poster presented at Gordon Research Conference, Galveston, Texas

3) **Byung-Sun Jeon**, **2007**, “*Designing of Novel HIL Materials for OLED*”, Poster presented at the 2nd Tech Fair at LG Chem., Daejeon City.

4) **Byung-Sun Jeon**, Jong-Hyun Cho, B. M. Kim, **2003**, “*Efficient Method N-Debenzylation of Various Benzylamino Derivatives Using Ionic Liquid as Co-solvent*”, Poster presented at the 4th Organic Chemistry Workshop, Chungju City, Choongchungbuk-do.

5) **Byung-Sun Jeon**, B. M. Kim, **2002**, “*Efficient N-Debenzylation Using Pd/C in Methanol-Ionic Liquid and Recycling of the Catalyst*”, Poster presented at the 90th national meetings of the Korean Chemical Society, Youngnam University, Gyeongsangbuk-do.

**Honors and Awards**

2016 Poster winner of Scott Symposium at Texas A&M

2003 Scholarship for Excellence in Academic Achievement

LG Chem, Daejeon, South Korea

2002 Brain Korea 21 Scholarship

2000 – 2001 Scholarship for Excellence in Academic Achievement

Lotte Foundation, Seoul, South Korea

1998 – 1999 Scholarship for Excellence in Academic Achievement

Seoul National University, Seoul, South Korea

**TEACHING EXPERIENCE**

01/2012 – 08/2012 **Teaching Assistant**, Organic Chemistry Lab, The University of Texas at Austin

Professor: Dr. Conrad Fjetland

09/2011 – 12/2012 **Teaching Assistant**, Organic Chemistry, The University of Texas at Austin

Professor: Dr. John Colapret

01/2011 – 08/2011 **Teaching Assistant**, Organic Chemistry Lab, The University of Texas at Austin

Professor: Dr. Conrad Fjetland

09/2010 – 12/2010 **Teaching Assistant**, Organic Chemistry, The University of Texas at Austin

Professor: Dr. Vanesa Patman

09/2003 – 12/2003 **Teaching Assistant**, Organic Chemistry Lab, Seoul National University

Professor: Byeong-Moon Kim

03/2002 – 06/2003 **Teaching Assistant**, Introduction of Organic Chemistry, Seoul National University

Professor: Dr. Yoon-Young Lee