Curriculum Vitae

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Education

2006-2009	Ph.D., Science, The University of Tokyo (Prof. Eiichi Nakamura) Thesis: "Synthesis, Properties and Applications of Functionalized Benzo[*b*]siloles"
2004-2006	M.S., Chemistry, The University of Tokyo (Prof. Eiichi Nakamura) Thesis: "2,3-Disubstituted Benzofuran, Indole and Related Conjugated Compounds via 3-Zinciobenzoheterole"
2000-2004	B.S., Chemistry, The University of Tokyo Thesis: "Intramolecular Addition of Zinc Aryloxides and Amides to Triple Bonds and Its Applications in the Synthesis of Disubstituted Benzofurans and Indoles"
1999-2000	Japanese Language Center for International Students, Fuchu, Tokyo, Japan
1996-1999	The Faculty of Chemistry and Chemical Engineering, Babes-Bolyai University, Cluj-Napoca, Romania (not completed; research advisor: Prof. Ioan A. Silberg)

Professional Experience

2021–	Adjunct Professor（連携教授）, Graduate School of Science and Engineering, Saitama University
2020	Adjunct Lecturer（非常勤講師), Graduate School of Engineering, The University of Tokyo
2020	Adjunct Lecturer（非常勤講師), College of Arts and Sciences, The University of Tokyo
2018–	Team Leader, RIKEN Center for Sustainable Resource Science
2014-2018	Associate Professor, Department of Chemistry, Graduate School of Science, The University of Tokyo

2009-2014	Assistant Professor, Department of Chemistry, Graduate School of Science, The University of Tokyo
2009	Postdoctoral Researcher, Chemistry, The University of Tokyo (Prof. Eiichi Nakamura)
2006	Visiting researcher, The University of Chicago (Prof. Rustem Ismagilov)

Accolades

2021	JSPC Award for Excellence, The 2021 Summer Symposium of the Japanese Society for Process Chemistry, "Organic Synthesis Using Sodium Dispersion in Place of Lithium" (with S. Asako, I. Takahashi, Y. Murakami, and K. Takai). JSPC 優秀賞日本プロセス化学会 2021 サマーシンポジウム, 「リチウム代替としての金属ナトリウム分散体を活用する有機合成」
2018	Lectureship Award, Asian CORE Program/Advanced Research Network
2016	Young Career Focus, *Synform*, DOI: 10.1055/s-0035-1562244
2015	Incentive Award in Synthetic Organic Chemistry, Japan 平成27年度有機合成化学奨励賞
2015	The Young Scientists' Prize (The Commendation for Science and Technology by the Minister of Education, Culture, Sports, Science and Technology), Japan 平成27年度科学技術分野の文部科学大臣表彰 若手科学者賞
2015	Thieme Chemistry Journal Award
2014	Banyu Chemist Award
2013	Diploma of Excellency from the Ministry of Education of Romania
2012	Chemistry Innovation University of Tokyo GCOE Lectureship
2009	Incentive Award of the Graduate School of Science (awarded for the best Ph.D. thesis), The University of Tokyo 東京大学大学院理学系研究科研究奨励賞（博士）
2008	Student Presentation Award, Annual Meeting of the Chemical Society of Japan 日本化学会第 88 春季年会 学生講演賞
2007	Poster Award, The First Asian Silicon Symposium, Miyagi, Japan
2007–2009	Japanese Society for the Promotion of Science (JSPS) Fellowship (DC2) 日本学術振興会　特別研究員(DC2)
2006–2007	Tonen (Exxon Mobile) International Foundation Scholarship 東燃国際奨学財団奨学生
1999–2006	Japanese Government (Monbukagakusho) Scholarship 文部科学省国費外国人留学生

Publications List

(1) Original Publications

1. "Birch Reduction of Arenes Using Sodium Dispersion and DMI under Mild Conditions", Sobi Asako,* Ikko Takahashi, Takashi Kurogi, Yoshiaki Murakami, Laurean Ilies, Kazuhiko Takai,* *Chem. Lett.* **2021**, online.
2. "Ligand-Enabled, Iridium-Catalyzed *ortho*-Borylation of Fluoroarenes", Olena Kuleshova, Sobi Asako, Laurean Ilies,* *ACS Catal.* **2021**, *11*, 5968–5973.
3. "Iron-Catalysed Regioselective Thienyl C–H/C–H Coupling", Takahiro Doba, Laurean Ilies, Wataru Sato, Rui Shang,* Eiichi Nakamura,* *Nat. Catal.* **2021**, *4*, 631–638.
4. "Halogen–Sodium Exchange Enables Efficient Access to Organosodium Compounds", Sobi Asako,* Ikko Takahashi, Hirotaka Nakajima, Laurean Ilies, Kazuhiko Takai,* *Commun. Chem.* **2021**, *4*, 76 (preprint: *ChemRxiv.* **2020** doi:10.26434/chemrxiv.12378104.v1). [Highlighted in *Nature Reviews Chemistry*].
5. "Chromium(III)-Catalyzed C(sp2)–H Alkynylation, Allylation, and Naphthalenation of Secondary Amides with Trimethylaluminum as Base", Mengqing Chen, Takahiro Doba, Takenari Sato, Hlib Razumkov, Laurean Ilies, Rui Shang,* Eichi Nakamura,* *J. Am. Chem. Soc.* **2020**, *142*, 4883–4891.
6. "Homocoupling-Free Iron-Catalysed Twofold C–H Activation/Cross-couplings of Aromatics via Transient Connection of Reactants", Takahiro Doba, Tatsuaki Matsubara, Laurean Ilies, Rui Shang,* Eiichi Nakamura,* *Nat. Catal*. **2019**, *2*, 400–406.
7. "Iron-Catalyzed Directed Alkylation of Carboxamides with Olefins via a Carbometalation Pathway", Laurean Ilies,* Yi Zhou, Haotian Yang, Tatsuaki Matsubara, Rui Shang, Eiichi Nakamura,* *ACS Catal.* **2018**, *8*, 11478–11482.
8. "Synthesis of Esomeprazole and Related Proton Pump Inhibitors through Iron-Catalyzed Enantioselective Sulfoxidation", Shigenobu Nishiguchi,* Takuhiro Izumi, Takayoshi Kouno, Junpei Sukegawa, Laurean Ilies,* Eiichi Nakamura,* *ACS Catal.* **2018**, *8*, 9738−9743.
9. "Silylation of Aryl Halides with Monoorganosilanes Activated by Lithium Alkoxide", Takumi Yoshida, Laurean Ilies,* Eiichi Nakamura,* *Org. Lett.* **2018**, *20*, 2844–2847.
10. "Iron-Catalyzed Synthesis of Indenones through Cyclization of Carboxamides with Alkynes", Laurean Ilies,* Yasin Arslanoglu, Tatsuaki Matsubara, Eiichi Nakamura,* *Asian J. Org. Chem.* **2018**, *7*, 1327–1329 (invited contribution to a special issue on C–H activation).
11. "Iron-Catalyzed Remote Arylation of Aliphatic C-H Bond via 1,5-Hydrogen Shift", Bingwei Zhou, Hiroki Sato, Laurean Ilies,* Eiichi Nakamura,* *ACS Catal.* **2018**, *8,* 8–11. [highlighted in SYNFACTS 2018, 184]
12. "Manganese-Catalyzed Directed Methylation of C(sp^2)–H Bonds at 25 °C with High Catalytic Turnover", Takenari Sato, Takumi Yoshida, Hamad H. Al Mamari, Laurean Ilies,* Eiichi Nakamura,* *Org*. *Lett*. **2017**, *19*, 5458–5461.

13. “Iron-Catalyzed Borylation of Aryl Chlorides in the Presence of Potassium *t*-Butoxide”, Takumi Yoshida, Laurean Ilies,* Eiichi Nakamura,* *ACS Catal.* **2017**, *7,* 3199–3203. [highlighted in SYNFACTS, 2017, 13, 639]
14. “Indole Synthesis via Cyclative Formation of 2,3-Dizincioindoles and Regioselective Electrophilic Trapping”, Laurean Ilies,* Mayuko Isomura, Shin-ichi Yamauchi, Tomoya Nakamura, Eiichi Nakamura,* *J. Am. Chem. Soc.* **2017**, *139*, 23–26. [highlighted in SYNFACTS, 2017, 13, 245]
15. “Iron/Zinc-Cocatalyzed Directed Arylation and Alkenylation of C(sp^3)-H Bonds with Organoborates”, Laurean Ilies,* Yuki Itabashi, Rui Shang, Eiichi Nakamura,* *ACS Catal.* **2017**, *7*, 89–92. [highlighted in SYNFACTS, 2017, 7, 89]
16. “Iron-Catalyzed *ortho* C–H Methylation of Aromatics Bearing a Simple Carbonyl Group with Methylaluminum and Tridentate Phosphine Ligand”, Rui Shang, Laurean Ilies,* Eiichi Nakamura,* *J. Am. Chem. Soc.* **2016**, *138*, 10132–10135.
17. “Oxidative C–H Activation Approach to Pyridone and Isoquinolone via Iron-Catalyzed Coupling of Amide with Alkyne”, Tatsuaki Matsubara, Laurean Ilies,* Eiichi Nakamura,* *Chem. Asian J.* **2016**, *11*, 380–384. (invited contribution to “Catalysis and Transformation of Complex Molecules” special issue).
18. “Iron-Catalyzed Directed C(sp^2)–H and C(sp^3)–H Functionalization with Trimethylaluminum”, Rui Shang, Laurean Ilies,* Eiichi Nakamura,* *J. Am. Chem. Soc.* **2015**, *137*, 7660–7663 [highlighted in SYNFACTS, 2015, 969, and chosen *Synfact of the Month*].
19. “Iron-Catalyzed Directed Alkylation of Alkenes and Arenes with Alkylzinc Halides”, Laurean Ilies,* Saki Ichikawa, Sobi Asako, Tatsuaki Matsubara, Eiichi Nakamura,* *Adv. Synth. Catal.* **2015**, *357*, 2175–2179 (Very Important Publication, invited contribution to the special issue dedicated to Stephen L. Buchwald).
20. “Iron-Catalyzed C(sp^2)–H Bond Functionalization with Organoboron Compounds”, Rui Shang, Laurean Ilies,* Sobi Asako, Eiichi Nakamura,* *J. Am. Chem. Soc.* **2014**, *136*, 14349–14352.
21. “Iron-Catalyzed Directed Alkylation of Aromatic and Olefinic Carboxamides with Primary and Secondary Alkyl Tosylates, Mesylates, and Halides”, Laurean Ilies,* Tatsuaki Matsubara, Saki Ichikawa, Sobi Asako, Eiichi Nakamura,* *J. Am. Chem. Soc.* **2014**, *136*, 13126–13129.
22. *“ortho*-Allylation of 1-Arylpyrazoles with Allyl Phenyl Ether via Iron-catalyzed C–H Bond Activation under Mild Conditions”, Sobi Asako, Jakob Norinder, Laurean Ilies,* Naohiko Yoshikai, Eiichi Nakamura,* *Adv. Synth. Catal.* **2014**, *356*, 1481–1485 (invited contribution to the *Directed C–H Activation* thematic issue, Ed. J.-Q. Yu).
23. “Theoretical Study on Alkoxydiphosphine Ligand for Bimetallic Cooperation in Nickel-Catalyzed Monosubstitution of C–F Bond”, Sobi Asako, Laurean Ilies,* Pritha Verma, Saki Ichikawa, Eiichi Nakamura,* *Chem. Lett.* **2014**, *43*, 726–728.

24. “Synthesis of Anthranilic Acid Derivatives through Iron-Catalyzed Ortho Amination of Aromatic Carboxamides with *N*-Chloroamines”, Tatsuaki Matsubara, Sobi Asako, Laurean Ilies,* Eiichi Nakamura,* *J. Am. Chem. Soc.* **2014**, *136*, 646–649. [highlighted in SYNFACTS, 2014, 408]
25. “Synthesis of Polysubstituted Enynes via Iron-Catalyzed Carbomagnesiation of Conjugated Diynes”, Laurean Ilies, Takumi Yoshida, Eiichi Nakamura,* *Synlett* **2014**, *25*, 527–530.
26. “Iron-Catalyzed Ortho Allylation of Aromatic Carboxamides with Allyl Ethers”, Sobi Asako, Laurean Ilies,* Eiichi Nakamura,* *J. Am. Chem. Soc.* **2013**, *135*, 17755–17757. [highlighted in SYNFACTS, 2014, 190]
27. “*β*-Arylation of Carboxamides via Iron-Catalyzed C(sp^3)–H Bond Activation”, Rui Shang, Laurean Ilies, Arimasa Matsumoto, Eiichi Nakamura,* *J. Am. Chem. Soc.* **2013**, *135*, 6030–6032. [highlighted in SYNFACTS, 2013, 771]
28. “Iron-Catalyzed Allylic Arylation of Olefins via C(sp^3)–H Activation under Mild Conditions”, Masaki Sekine, Laurean Ilies, Eiichi Nakamura,* *Org. Lett.* **2013**, *15*, 714–717. [highlighted in SYNFACTS, 2013, 433]
29. “Nickel-Catalyzed Synthesis of Diarylamines via Oxidatively Induced C–N Bond Formation at Room Temperature”, Laurean Ilies, Tatsuaki Matsubara, Eiichi Nakamura,* *Org. Lett.* **2012**, *14*, 5570–5573.
30. “Iron-Catalyzed Chemo- and Stereoselective Hydromagnesiation of Diarylalkynes and Diynes”, Laurean Ilies, Takumi Yoshida, Eiichi Nakamura,* *J. Am. Chem. Soc.* **2012**, *134*, 16951–16954. [highlighted in SYNFACTS, 2013, 88]
31. “Synthesis of Polysubstituted Naphthalenes by Iron-Catalyzed [2 + 2 + 2] Annulation of Grignard Reagents with Alkynes”, Laurean Ilies, Arimasa Matsumoto, Motoaki Kobayashi, Naohiko Yoshikai, Eiichi Nakamura,* *Synlett* **2012**, *23*, 2381–2384.
32. “Iron-Catalyzed *ortho* Monoarylation of Benzamide Derivatives", Laurean Ilies, Eita Konno, Quan Chen, Eiichi Nakamura,* *Asian J. Org. Chem* **2012**, *1*,142–145.
33. “Nickel-Catalyzed Monosubstitution of Polyfluoroarenes with Organozinc Reagents Using Alkoxydiphosphine Ligand”, Yuki Nakamura, Naohiko Yoshikai, Laurean Ilies, Eiichi Nakamura,* *Org. Lett.* **2012**, *14*, 3316–3319. [highlighted in SYNFACTS, 2012, 1007]
34. “Iron-Catalyzed Regio- and Stereoselective Chlorosulfonylation of Terminal Alkynes with Aromatic Sulfonyl Chlorides”, Xiaoming Zeng, Laurean Ilies, Eiichi Nakamura,* *Org. Lett.* **2012**, *14*, 954–956.
35. “Iron-Catalyzed Nitrogen-Directed Coupling of Arene and Aryl Bromides Mediated by Metallic Magnesium”, Laurean Ilies, Motoaki Kobayashi, Arimasa Matsumoto, Naohiko Yoshikai, Eiichi Nakamura,* *Adv. Synth. Catal.* **2012**, *354*, 593–596.

36. “Synthesis of Functionalized 1*H*-Indenes via Copper-Catalyzed Arylative Cyclization of Arylalkynes with Aromatic Sulfonyl Chlorides”, Xiaoming Zeng, Laurean Ilies, Eiichi Nakamura,* *J. Am. Chem. Soc.* **2011**, *133*, 17638–17640.
37. “Iron-Catalyzed Oxidative Monoarylation of Primary Amines with Organozinc Reagents”, Yuki Nakamura, Laurean Ilies, Eiichi Nakamura,* *Org. Lett.* **2011**, *13*, 5998–6001. [highlighted in SYNFACTS, 2012, 199]
38. “Iron-Catalyzed C–H Bond Activation for the *ortho*-Arylation of Aryl Pyridines and Imines with Grignard Reagents", Naohiko Yoshikai, Sobi Asako, Takeshi Yamakawa, Laurean Ilies, Eiichi Nakamura,* *Chem. Asian J.* **2011**, *6*, 3059–3065.
39. “Cobalt-Catalyzed Coupling of Alkyl Grignard Reagent with Benzamide and 2-Phenylpyridine Derivatives through Directed C–H Bond Activation under Air", Quan Chen, Laurean Ilies, Naohiko Yoshikai, Eiichi Nakamura,* *Org. Lett.* **2011**, *13*, 3232–3234. [highlighted in SYNFACTS, 2011, 1008]
40. “Iron-Catalyzed Stereospecific Activation of Olefinic C–H Bonds with Grignard Reagent for Synthesis of Substituted Olefins”, Laurean Ilies, Sobi Asako, Eiichi Nakamura,* *J. Am. Chem. Soc.* **2011**, *133*, 7672–7675. [highlighted in SYNFACTS, 2011, 896]
41. “Phenanthrene Synthesis by Iron-Catalyzed [4 + 2] Benzannulation between Alkyne and Biaryl or 2-Alkenylphenyl Grignard Reagent”, Arimasa Matsumoto, Laurean Ilies, Eiichi Nakamura,* *J. Am. Chem. Soc.* **2011**, *133*, 6557–6559. [highlighted in SYNFACTS, 2011, 774]
42. “Cobalt-Catalyzed Chemoselective Insertion of Alkene into the Ortho C−H Bond of Benzamide”, Laurean Ilies, Quan Chen, Xiaoming Zeng, Eiichi Nakamura,* *J. Am. Chem. Soc.* **2011**, *133*, 5221–5223.
43. “Cobalt-Catalyzed *ortho*-Alkylation of Secondary Benzamide with Alkyl Chloride through Directed C–H Bond Activation”, Quan Chen, Laurean Ilies, Eiichi Nakamura,* *J. Am. Chem. Soc.* **2011**, *133*, 428–429. [highlighted in SYNFACTS 2011, 7, 433]
44. “Iron-Catalyzed, Directed Oxidative Arylation of Olefins with Organozinc and Grignard Reagents”, Laurean Ilies, Jun Okabe, Naohiko Yoshikai, Eiichi Nakamura,* *Org. Lett.* **2010**, *12*, 2838–2840. [highlighted in SYNFACTS 2010, 1053]
45. “Iron-Catalyzed C−C Bond Formation at α-Position of Aliphatic Amines via C−H Bond Activation through 1,5-Hydrogen Transfer”, Naohiko Yoshikai, Adam Mieczkowski, Arimasa Matsumoto, Laurean Ilies, Eiichi Nakamura,* *J. Am. Chem. Soc.* **2010**, *132*, 5568–5569. [highlighted in SYNFACTS 2010, 820]
46. “Synthesis of Tetrasubstituted Alkenes by Stereo- and Regioselective Stannyllithiation of Diarylacetylenes”, Hayato Tsuji,* Yasuyuki Ueda, Laurean Ilies, Eiichi Nakamura,* *J. Am. Chem. Soc.* **2010**, *132*, 11854–11855. [highlighted in SYNFACTS 2010, 1257, also selected "SYNFACT of the month"]

47. “Modular Synthesis of Polybenzo[*b*]silole Compounds for Hole-Blocking Material in Phosphorescent Organic Light Emitting Diodes”, Laurean Ilies, Yoshiharu Sato,* Chikahiko Mitsui, Hayato Tsuji,* Eiichi Nakamura,* *Chem. Asian J.* **2010**, *5*, 1376–1381.
48. “Synthesis of Benzo[*b*]siloles via KH-Promoted Cyclization of (2-Alkynylphenyl)silanes”, Laurean Ilies, Hayato Tsuji,* Eiichi Nakamura,* *Org. Lett.* **2009**, *11*, 3966–3968.
49. “Tetraaryl-substituted Benzo[1,2-*b*:4,5-*b'*]dipyrroles: Synthesis, Properties, and Applications to Hole-Injection Materials in OLED Devices”, Hayato Tsuji,* Yuki Yokoi, Chikahiko Mitsui, Laurean Ilies, Yoshiharu Sato, Eiichi Nakamura,* *Chem. Asian J.* **2009**, *4*, 655–657.
50. “Modular Synthesis of Benzo[*b*]phosphole Derivatives via BuLi-Mediated Cyclization of (*o*-Alkynylphenyl)phosphine”, Hayato Tsuji,* Kosuke Sato, Laurean Ilies, Yoshimitsu Itoh, Yoshiharu Sato, Eiichi Nakamura,* *Org. Lett.* **2008**, *10*, 2263–2265.
51. “Modular Synthesis of Functionalized Benzosiloles by Tin-mediated Cyclization of (*o*-Alkynylphenyl)silane”, Laurean Ilies, Hayato Tsuji,* Yoshiharu Sato, Eiichi Nakamura,* *J. Am. Chem. Soc.* **2008**, *130*, 4240–4241 [highlighted in SYNFACTS 2008, 702]
52. “Synthesis and Properties of 2,3,6,7-Tetraarylbenzo[1,2-*b*:4,5-*b*']difurans as Hole-Transporting Material”, Hayato Tsuji,* Chikahiko Mitsui, Laurean Ilies, Yoshiharu Sato, Eiichi Nakamura,* *J. Am. Chem. Soc.* **2007**, *129*, 11902–11903.
53. “2,3-Disubstituted Benzofuran and Indole by Copper-Mediated C–C Bond Extension Reaction of 3-Zinciobenzoheterole”, Masaharu Nakamura,* Laurean Ilies, Saika Otsubo, Eiichi Nakamura,* *Org. Lett.* **2006**, *8*, 2803–2805. [highlighted in SYNFACTS 2006, 832]
54. “3-Zinciobenzofuran and 3-Zincioindole: Versatile Tools for Construction of Conjugated Structures Containing Multiple Benzoheterole Units”, Masaharu Nakamura,* Laurean Ilies, Saika Otsubo, Eiichi Nakamura,* *Angew. Chem. Int. Ed.* **2006**, *45*, 944–947. [highlighted in SYNFACTS 2006, 427]

(2) Books, Reviews, Others

1. “Asymmetric functionalization of C–H bonds in heterocycles”, Olena Kuleshova, Laurean Ilies, in *Transition-Metal-Catalyzed C-H Functionalization of Heterocycles*, chapter 12, Eds.: T Punniyamurthy, A. Kumar, John Wiley&Sons, Inc. (2021) (accepted).
2. “Iron-Catalyzed Enantioselective C–H Functionalization”, Sobi Asako, Laurean Ilies, in *Handbook of CH-Functionalization*, Ed.: D. Maiti, John Wiley&Sons, Inc. (2021) (accepted).
3. 「炭素−水素結合の酸化的カップリング」， in「有機合成のための新触媒反応１０１」, 檜山爲次郎，野崎京子，中尾佳亮，中野幸司　編集，67 章, pp 134−135, 東京化学同人（2021）.
4. 「sp^2, sp^3炭素−水素結合のアルキル化」， in「有機合成のための新触媒反応１０１」, 檜山爲次郎，野崎京子，中尾佳亮，中野幸司　編集，73 章，pp 146−147, 東京化学同人（2021）.

5. “Recent Advances in the Use of Sodium Dispersion for Organic Synthesis”, Pinaki Bhusan De, Sobi Asako,* Laurean Ilies,* *Synthesis* **2021**, *53*, 3180–3192 (invited short review to the “Bond Activation - in Honor of Prof. Shinji Murai” special issue).
6. “C–H Activation Catalyzed by Earth-Abundant Metals”, Laurean Ilies,* *Bull. Chem. Soc. Jp.* **2021**, *94*, 404–417 [invited account to the “Frontiers of Molecular Science” Diamond Collection issue].
7. “Olefin Synthesis by Deoxygenative Coupling of Carbonyl Compounds: From Stoichiometric to Catalytic”, Sobi Asako,* Laurean Ilies,* *Chem. Lett.,* **2020***, 49*, 1386–1393 (invited highlight review).
8. “Earth-Abundant Metals in Catalysis”, Laurean Ilies,* Stephen P. Thomas,* Ian A. Tonks,* *Asian J. Org. Chem.* **2020**, *9*, 324-325 (special issue editorial).
9. “C–H Bond Activation”, Laurean Ilies, Sobi Asako, Takumi Yoshida, *Chemistry Essentials Series*, vol. 34, Kyoritsu Shuppan (2019). 「C–H 結合活性化反応」，化学要点シリーズ，34 巻，共立出版（2019 年）.
10. “Iron-Catalyzed C–H Bond Activation”, Laurean Ilies,* *Journal of Organic Synthetic Chemistry*, *Japan* **2017**, *75*, 802–809 (award account).
11. “Iron-Catalyzed C–H Bond Activation”, Rui Shang, Laurean Ilies,* Eiichi Nakamura,* *Chem. Rev.* **2017**, *117*, 9086–9139 (invited contribution to a special issue on C–H activation).
12. “Iron-Catalyzed C–H Bond Activation”, Laurean Ilies,* Eiichi Nakamura, *Topics in Organometallic Chemistry: C-H Bond Activation and Catalytic Functionalization II*, Eds.: P. H. Dixneuf and H. Doucet, pp 1-18, Springer Berlin Heidelberg (2016).
13. “Iron Catalysis for Organic Synthesis” (translation from the Japanese), Laurean Ilies, Eiichi Nakamura, in *Iron Dictionary*, Chapter 8.9.2, pp 234–241, Asakura Publishing Co. (2014). 「鉄化合物を触媒とする有機合成化学」，「鉄の事典」，朝倉書店 2014 年; pp 234–241.
14. “Synthetic Strategy for Multisubstituted Fused Furan Compounds Using Main-Group Metal Reagents”, Hayato Tsuji,* Laurean Ilies, Eiichi Nakamura,* *Synlett* **2014**, *25*, 2099–2110.
15. “Iron-Catalyzed Cross-Coupling Reactions”, Laurean Ilies, Eiichi Nakamura,* in *The Chemistry of Organoiron Compounds*, Eds.: I. Marek and Z. Rappoport, pp 539–567, John Wiley&Sons, Ltd.: Chichester, UK (2014).
16. “Iron-Catalyzed Cross-Coupling Reactions”, Eiichi Nakamura,* Takuji Hatakeyama, Shingo Ito, Kentaro Ishizuka, Laurean Ilies, Masaharu Nakamura in *Organic Reactions*, vol. 83, pp 1–209, Ed.: S. E. Denmark, John Wiley&Sons, Inc. (2014).
17. “Iron-Catalyzed Direct Functionalization of Inert C–H Bonds”, Laurean Ilies,* Eiichi Nakamura,* *Fine Chemicals* **2012**, *41*, 40–45. 「鉄を触媒とする不活性炭素−水素結合の直接官能基化」, イリエシュ　ラウレアン, 中村栄一, ファインケミカル（特集 鉄触媒の最新研究動向）, 41, 40–45 (2012).

Patents

1. “Process for the Synthesis of Optical Active Proton Pump Inhibitors” (translation from the Japanese), Eiichi Nakamura, Laurean Ilies, Yoji Oderaotoshi, Takuhiro Izumi, *Jpn. Kokai Tokkyo Koho*, 2014-264317; international application: WO2016104668.
   特願 2014-264317,「光学活性のプロトンポンプ阻害化合物の製造方法」, 発明者：中村　栄一, イリエシュ　ラウレアン, 大平落　洋二, 泉　拓洋, 提出日：2014 年 12 月 26, 出願人：東京大学, 東和薬品.
2. “Iron-Catalyzed Process for the Synthesis of Coupling Compounds” (translation from the Japanese), Eiichi Nakamura, Laurean Ilies, Rui Shang, *Jpn. Kokai Tokkyo Koho*, 2014-47532.
   特願 2014-47532,「鉄触媒によるカップリング化合物の製造方法」, 中村栄一, イリエシュ　ラウレアン, 尚　睿, 出願日：2014 年 3 月 11 日, 出願人：東京大学.
3. “Aryl-Substituted Siloles, Their Preparation, and Threshold-Reduced Organic Electroluminescent Devices Therewith” (translation from the Japanese), Eiichi Nakamura, Yoshiharu Sato, Hayato Tsuji, Laurean Ilies, *Jpn. Kokai Tokkyo Koho*, 2008-264653.
   特許第 5159551 号, 特願 2008-264653,「シロール化合物とその製造方法およびそれを用いた有機電界発光素子」, 中村栄一, 佐藤 佳晴, 辻 勇人, イリエシュ　ラウレアン, 登録日：２０１２年１２月２１日, 出願日：2008 年 10 月 10 日, 出願人：東京大学.

Invited Lectures

1. “C–H Functionalization Catalyzed by Earth-Abundant Metals”, Pacifichem 2021, December 20, 2020 (online, invited, Base Metal-Catalyzed Reactions (#384)).
2. “Iron-Catalyzed C–H Functionalization”, Pacifichem 2021, December 21, 2021 (online, invited, Homogeneous Catalysis by Earth Abundant Metals (#228)).
3. “Half a Life in Japan from a Chemist’s Perspective”, Let’s Enjoy Chemistry in Japan, the 10th CSJ Chemistry Festa, October 22, 2020.
4. “Catalytic C–H Activation with First-Row Transition Metals”, International Symposium on Advanced Science and Technology, National Chung Hsing University, Taiwan, October 16, 2020.
5. “C–H Activation with Earth-Abundant Metals”, Chemistry Seminar, Indian Institute of Technology Guwahati, September 9, 2020.
6. “21 Years of a European Synthetic Chemist in Japan”, International Webinar, Guru Nanak College, July 16, 2020.
7. “C–H Activation with Earth-Abundant Metals”, Nanyang Research Conference on Synthetic Chemistry and Catalysis, Nanyang Technological University Singapore, January 15 – 17, 2020
8. 「鉄触媒を用いた反応開発」, 大日本住友製薬 講演会, 大日本住友製薬 大阪研究所, 2019 年 10 月 3 日. Development of New Reactions Using Iron Catalysis, Sumitomo

Dainippon Pharma Seminar.

9. 「普遍金属を触媒とする反応開発の苦悩と歓喜」，理研シンポジウム：第 14 回有機合成化学のフロンティア，理化学研究所，2019 年 6 月 21 日．Development of New Reactions Catalyzed by Base Metals: The Agony and the Ecstasy.
10. “Multifold C-H Activation Using Iron Catalysis”, Hokkaido Summer Symposium 2019 on Catalysis for Organic Synthesis, Hokkaido University, July 1, 2019.
11. C-H Activation with Base Metals, The 13th International Conference on Cutting-Edge Organic Chemistry in Asia (ICCEOCA-13), Chulabhorn Research Institute, Bangkok, November 1, 2018.
12. 「C-H 活性化の鉄学」，第８回 CSJ 化学フェスタ，文科省科研費新学術領域研究「ハイブリッド触媒」特別企画：「１＋１は３？」ハイブリッド触媒が紡ぎ出す新反応化学，タワーホール船橋，２０１８年１０月２３日.
    “Challenges in Iron-Catalyzed C-H Activation”, The 8th CSJ Chemistry Festa, Tower Hall Funabashi, October 10, 2018.
13. “Iron-Catalyzed C–H Bond Activation”, The 4th International Symposium on C-H Activation (ISCHA-4), Keio University, Yokohama, August 30-September 2, 2018.
14. “Catalysis with Earth Abundant Transition Metals”, Asian Workshop of Experiment and Theory in Quantum Beam Molecular Sciences, Ibaraki University, Mito, Ibaraki, June 3, 2018.
15. “Iron Likes Single Electron Transfer”, The 1st Sino-Japanese Symposium on Catalysis for Precision Synthesis, Shanghai, May 27–30, 2018.
16. “Japanese Research Seen from an International Perspective”, The 98th Annual Meeting of the Chemical Society of Japan, Nihon University, Funabashi, March 22, 2018.
    世界から見た日本の化学研究，日本化学会第９８春季年会，日本大学船橋キャンパス
17. “C–H Activation Catalyzed by Earth Abundant Metals”, The 9th OCARINA International Symposium, Osaka City University, Osaka, March 7-8, 2018.
18. “Catalysis with Earth-abundant metals: C-H functionalization and other stories”, Institute for Chemical Research, Kyoto University, March 26, 2018.
19. “Iron-Catalyzed C–H Bond Activation”, The 67th Conference of Japan Society of Coordination Chemistry, Hokkaido University, Hokkaido, September 16-18, 2017.
20. “Iron-Catalyzed C–H Bond Activation of Simple Substrates”, International Symposium on Pure & Applied Chemistry 2017, Ho Chi Minh, Vietnam, June 8-10, 2017.
21. “Iron-Catalyzed C–H Bond Activation”, The 5th Keio Organic Chemistry Young Chemists Symposium, Keio University, Tokyo, April 22, 2017.
22. “Taming Iron for Catalytic C–H Bond Activation”, The 27th Kanagawa University Hiratsuka Symposium, Kanagawa University, Hiratsuka, March 4, 2017.
23. “Iron-Catalyzed C–H Bond Activation”, The 33rd Seminar on Organic Synthetic Chemistry, Hilton Niseko Village, Hokkaido, September 7, 2016 (award lecture).

24. “Iron-Catalyzed Hydro- and Carbometalation of Triple Bonds”, Base Metal Catalysis Symposium, Princeton University, September 2, 2016.
25. “High-Valent Iron Catalysis for Directed C–H Activation”, Joint Workshop on Chirality Network and Soft Molecule Activation, Chiba University, Chiba, March 17, 2016.
26. “Directed C–H Bond Activation using Iron Catalysis”, The 95th Annual Meeting of the Chemical Society of Japan, Japan-China Young Chemists Forum, Nihon University, Funabashi, March 27, 2015.
27. “Iron-Catalyzed C–H Functionalization”, series of lectures: Institute Charles Gerhardt, Montpellier (June 22, 2015, Host: Prof Jean-Marc Campagne); Laboratoire de Chimie de Coordination, Toulouse (June 23, 2015, Host: Prof. Emmanuel Gras); University of Leuven (June 25, Host: Prof. Erik Van der Eycken); University of Ghent (June 26, Host: Prof. Johan Van der Eycken).
28. “Iron-Catalyzed C–H Activation”, The 13th Ibn Sina International Conference on Pure and Applied Heterocyclic Chemistry, Hurghada, Egypt, February 14-17, 2015.
29. “Iron-Catalyzed C–H Activation”, NTU-SNU-UT Chemistry Symposium, National Taiwan University, Taipei, January 16, 2015.
30. “Iron-Catalyzed C–H Activation”, The 42th Organometallic Seminar: “The Art of Catalysis Design”, Tokyo University of Agriculture and Technology, Koganei, Tokyo, November 25, 2014.
31. “Iron-Catalyzed Directed C–H Functionalization with Organoboron Compounds”, The 7th Symposium on Molecular Activation, Sapporo, June 20, 2014.
32. “Iron-Catalyzed C–H Functionalization”, Okayama University Symposium: "New Molecular Transformations Enabled by Transition Metal Catalysis", Okayama University, Okayama, December 19, 2013.
33. “Iron-Catalyzed C–H Activation”, International Symposium on Catalysis and Fine Chemicals (C&CF) 2013, Beijing, December 1-5, 2013.
34. “Iron-Catalyzed Directed C–H Activation”, 4th Symposium for Young Chemists on Molecular Activation, Kagoshima, November 14-15, 2013.
35. “Organoiron Species in Catalysis: C–H Activation and Related Stories”, series of lectures in China, 2013: Institute of Chemistry, Chinese Academy of Science (February 25, Host: Prof. Dequing Zhou); Peking University (February 26, Host: Prof. Zhenfeng Xi); Tsinghua University (February 27, Host: Prof. Xi Zhang), Nankai University (February 28, Host: Prof. Qi-Lin Zhou); Xi'an Jiaotong University (March 4, Host: Prof. Xiang Zhao).
36. “First-Row Transition-Metal-Catalyzed C–H Bond Functionalization”, series of lectures in Germany, 2012: Max-Planck Institute für Kohlenforschung (February 29, Host: Prof. Alois Fürstner); RWTH Aachen University (March 2, Hosts: Prof. Carsten Bolm and Prof. Jun Okuda); Philipps Universität Marburg (March 5, Host: Prof. Eric Meggers); Max-Planck Institute for Polymer Research (March 7, Host: Prof. Klaus Müllen); WWU Münster (March

8, Host: Prof. Frank Glorius).

37. “First-Row Transition Metal-Catalyzed C–H Bond Functionalization”, The 8th Seminar on the Chemistry of Organic Elements, Kyoto University, Uji, November 2011.
38. “Iron- and Cobalt-Catalyzed C–H Bond Functionalization”, Taisho Pharmaceuticals, Omiya, August 2011.
39. “Sustainable Organic Synthesis using Iron- and Cobalt-Catalyzed C–H Bond Functionalization”, Tokyo Institute of Technology, May 2011.
40. “Realization of My Dream”, The 3rd Symposium: My Dream as a Professional, Chemistry Innovation Global COE Program at the University of Tokyo, January 2010.
41. “My Chemical Journey: From New Reaction to New Compounds, Properties and Applications”, 1st ZESTY Seminar, The University of Tokyo, April 2008.

Society Memberships

The Chemical Society of Japan 日本化学会
The Society of Synthetic Organic Chemistry, Japan 有機合成化学協会
The Japanese Society for Process Chemistry 日本プロセス化学会

Languages

Romanian (native), English (fluent), Japanese (fluent).

Teaching Experience (The University of Tokyo)

2020 Applied Chemistry Intensive Lecture (C–H Activation), graduate students, School of Engineering.
東京大学大学院工学系研究科　応用化学特論第 5：「C–H 結合活性化反応」（集中講義，非常勤講師）.

2020 Materials Chemistry I (Basic Organic Chemistry), undergraduate international students, College of Arts and Sciences.
東京大学教養学部　物質化学 I（非常勤講師）

At the School of Science:

2014-2017 Laboratory Work in Chemistry I, (Global Science Course international students)
2014-2017 Basic Organic Chemistry I (graduate students).
2014 Organic Chemistry I (2nd year undergraduate students).
有機化学基礎I（大学院生）
2014–2017 Organic Chemistry II (3rd year undergraduate students).
有機化学II・構造論 (学部3年生)
2009-2017 Organic Chemistry Seminar (4rd year undergraduate students).
有機化学演習（学部4年生）
2009-2017 Laboratory instruction, organic chemistry (3rd year undergraduate students).

有機化学実験（学部3年生）

Service

2021– Elected to the RIKEN Scientists' Assembly (研究員会議)
Chairman, The 24th Interdisciplinary Exchange Evening (異分野交流の夕べ)

2021– International Advisory Board, Asian Journal of Organic Chemistry.

2020 Guest editor, Asian Journal of Organic Chemistry, Special Issue: Earth-Abundant Metals in Catalysis.

2017 IUPAC Congress, Young Observer; delegate of the Japan Science Council (international adviser)
日本学術会議外国人アドバイザー

2017– Selection Committee, Tonen International Scholarship Foundation
東燃国際奨学財団 選考委員

2016– Super Science High School (SSH) Project Consultant, Omiya Kita High School
さいたま市立大宮北高等学校　ＳＳＨ運営指導委員

2015– Future Planning Committee of the Japanese Society for Process Chemistry
日本プロセス化学会　将来計画委員会

2015-2018 Consultant, Towa Pharmaceutical Co., Ltd.
東和薬品株式会社 研究コンサルタント，技術指導

2015-2018 Gender equality committee of the School of Science, The University of Tokyo
東京大学理学部　男女共同参画委員

2016-2018 Vice-chair, undergraduate organic chemistry experiments, Department of Chemistry, The University of Tokyo
東京大学理学部化学部　有機化学実験副責任者

2016 Chairman, International Symposium "Chemistry: A Bridge between Molecular and Real Worlds", Tokyo Dome Hotel, Tokyo, July 03

2016 Chairman, "Symposium on Frontiers of Molecular Science and Technology", Koshiba Hall, The University of Tokyo, July 02

2014 Organizing Committee, The 26th International Conference on Organometallic Chemistry (ICOMC2014), Sapporo, Japan

Outreach

2020 "Pursuing a Dream of Organic Chemistry Research in Japan", English Research Seminar, NIT Gunma College

2020 "Chemists Amid Coronavirus", interview for Chemistry World (April 14, 2020).

2019 Hosted RIKEN visit of students from Tonen International Scholarship Foundation.

2017 Consultant for the series "Science of Carbon 2: Introduction to Organic Chemistry" Newton magazine, April edition.

Newton４月号，シリーズ．炭素の科学 第２回：有機化学入門，協力者.

2017 Chemistry Views, Wiley-VCH, interview on the Global Science Course Program at the Department of Chemistry, University of Tokyo.

2016 “Why did I Come to Japan: Japanese Research Seen from an International Perspective”, The 27th SSH Science Forum, Yashiro High School, Nagano
「欧州の科学者が日本ではたらく理由：国際的な視野から見た日本の研究とは」
第27回ＳＳＨサイエンスフォーラム，屋代高校・附属中学校，2016年5月10日

2015 “Synthetic Chemistry: From Alchemy to Modern Organic Chemistry”, Summer Lecture Series for High School Students, School of Science, The University of Tokyo
「合成化学：錬金術から最先端化学まで」, 東京大学大学院理学系研究科
夏休み講座2015，東京大学小柴ホール，2015年8月17日.

2015 “Synthetic Chemistry: From Alchemy to Modern Organic Chemistry”, lecture for the Open Campus Program of the School of Science, The University of Tokyo.
「合成化学：錬金術から最先端化学まで」，
東京大学理学部オープンキャンパス2015，化学本館５階講堂，2015年8月5日.

2015 “Organic Synthetic Chemistry”, lecture for the UTRIP program of the School of Science, The University of Tokyo

2015 “How did a Romanian Become a Researcher in Japan?”, Career Forum, Omiya-Kita High School
「ルーマニア出身の化学者が日本ではたらく理由」，サタデースペシャルキャリア座談会，さいたま市立大宮北高等学校，2015年６月13日

2015 Experiments with 3rd grade undergraduate students and presentation at the Spring Festival of the University of Tokyo
東京大学五月祭，化学科学生の実験および発表の指導

2014 “My 15 Years Journey in Japan”, lecture for the Tonen International Scholarship Foundation

2011–2017 “One Day Experience of Chemistry Research” program for high school students to visit the lab for one day and perform experiments (iron-catalyzed cross-coupling).
「一日体験化学教室実」
高校生が鉄触媒を用いたクロスカップリング反応を体験するプログラム

2010 Interview on the cross-coupling reaction, with the occasion of the Chemistry Nobel Prize, “Super News”, Fuji TV (http://datazoo.jp/tv/スーパーニュース/438670).
ノベル賞対処になったクロスカップリング反応について，フジテレビのスーパーニュース取材 (http://datazoo.jp/tv/スーパーニュース/438670).

2009 “Why are European chemists doing research in Japan”, interview for Nikkei Business Publication (in Japanese: http://www.nikkeibp.co.jp/article/nba/20090703/165049/)

「欧州の化学者が日本ではたらく理由」，日経 BP 取材
(http://www.nikkeibp.co.jp/article/nba/20090703/165049/)