

EXHIBIT 2024

Declaration of Gregory T. Whiteker, Ph.D.
Regarding the Proposed Combination of
Okano and Withenshaw

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CLEAN CHEMISTRY, INC.,

Petitioner,

v.

ENVIRO TECH CHEMICAL SERVICES, INC.,

Patent Owner.

Case IPR2025-01471

Patent 9,363,997

**DECLARATION OF GREGORY T. WHITEKER, PH.D.
REGARDING THE PROPOSED COMBINATION OF OKANO AND WITHENSHAW**

I, Gregory T. Whiteker, hereby declare as follows:

I. INTRODUCTION

1. I have been retained by Patent Owner Enviro Tech Chemical Services, Inc. to provide expert services in the above captioned *inter partes* review (“IPR”).

2. I am being compensated for my time in connection with this IPR at my standard consulting rate. I have no personal or financial stake or interest in the outcome of the present proceeding.

3. I submit this declaration in support of Enviro Tech Chemical Services, Inc.’s Patent Owner’s Preliminary Response in the above captioned IPR.

II. MY QUALIFICATIONS

4. I obtained a Bachelor of Science in Chemistry degree, with honors, from Earlham College in 1985.

5. I obtained my Ph.D. in Inorganic Chemistry with a minor in Organic Chemistry from the University of Wisconsin-Madison in 1989.

6. I was a National Institute of Health & American Cancer Society Postdoctoral Fellow at the Massachusetts Institute of Technology from November 1989 through June 1991.

7. I am an inventor on eighty U.S. Patents.

8. My CV is attached as Exhibit A, which further details my education, work experience, granted patents, research publications and presentations.

9. I have reviewed U.S. Patent Nos. 8,546,449, 9,363,997, 9,730,443, and 9,737,072 (the “Asserted Patents”), as well as cited references Okano (JP 2006-045147 A) and Withenshaw (WO 2001/046519).

10. I understand the chemistry of the generation and the composition of peroxyacetic acid (PAA), commonly known as peracetic acid, and consider myself a person of ordinary skill in the art at the time of invention as it relates to the Asserted Patents.

III. PERSON OF ORDINARY SKILL IN THE ART

11. I understand that patents are evaluated from the perspective of a person of ordinary skill in the art (“POSITA”).

12. A POSITA is a competent person of ordinary skills and creativity. He or she is presumed to be familiar with all publicly available relevant prior art at the time of the invention of the Asserted Patents.

13. In my opinion, a POSITA would include a person with a bachelor’s degree in chemistry, chemical engineering, or a related discipline with 5 years of working experience in chemical synthesis, a person with a master’s degree in chemistry, chemical engineering, or a related discipline with 3 years of working

experience in chemical synthesis, or a person with a Ph.D. in chemistry, chemical engineering, or a related discipline. A person with a Ph.D. in chemistry, chemical engineering, or a related discipline would not need additional working experience by virtue of the additional training and lab work associated with his or her educational training.

14. I have considered the issues and arrived at my conclusions from the perspective of a POSITA.

IV. COMBINATION OF OKANO AND WITHENSHAW

15. Okano is directed to a one-pot synthesis of a cleaning solution from triacetin, hydrogen peroxide and sodium hydroxide, as shown in paragraph [0057], cited by Petitioner. Withenshaw, in contrast, is directed to a process which uses the acetyl precursor tetraacetylenediamine (TAED). Withenshaw does not teach or suggest the use of triacetin; it is focused solely on other acetyl precursors, chiefly TAED. However, TAED in its commercially available, powdered form is unsuitable for the process due to the issues described by Withenshaw (page 2, line 3). Instead, Withenshaw teaches that an “agglomerated” form of TAED is required for use in the process. As described by Withenshaw, the production of the required TAED agglomerates necessitates a separate, additional manufacturing step (page 6, line 9) which increases cost and uses additional ingredients and equipment

compared to a process that uses triacetin which does not require these additional steps. This crucial difference has significant implications for the motivation and ability of a skilled artisan to combine these references.

16. TAED is a solid compound, while triacetin is an oily liquid. As shown in Figure 1, Withenshaw uses a hopper (element 10) and screw drive (element 11) system to dispense solid TAED agglomerates into the reaction vessel (element 1). Such a device is uniquely suited to disperse solid reagents such as TAED, and cannot easily be adapted to disperse liquid reagents such as triacetin. Screw feeders (element 11) are designed to meter solid materials, such as TAED, at a controlled rate by rotation of a helical auger or screw. As the screw is rotated by a motor at a controlled speed, it physically drags solid through a trough or tube and adds it to downstream equipment (in the Withenshaw case, batch tank 1) at a consistent, accurate rate. Simply substituting triacetin for agglomerated TAED in the device of Withenshaw would not be successful. Screw feeders are designed with a small gap between the screw and the trough or tube wall to allow for rotation of the screw. Unlike a solid, liquids (such as triacetin) can readily flow through a gap and leak into downstream equipment without the ability to control the addition rate. For this reason, a screw drive (11) would be incapable of accurately delivering a liquid acetyl precursor.

17. A skilled artisan would have to make substantial modifications to the device of Withenshaw to render it suitable for use with a liquid acetyl precursor such as triacetin.

18. Furthermore, neither Withenshaw nor Okano provide the guidance which a skilled artisan would require in order to make these modifications. Withenshaw does not contemplate the use of a liquid acetyl precursor, and Okano does not contemplate the creation of a continuous process. As such, there is no substance available in either reference which could guide a skilled artisan in modifying the device of Withenshaw to use triacetin as the acetyl precursor, as suggested by the Petitioner.

19. Finally, Withenshaw teaches away from the use of acetyl precursors other than TAED. Withenshaw discusses on page 5 that the use of solid TAED agglomerates “facilitates accurate dosing” and also “allows for easy recovery from accidental spillage.” Neither of these advantages are true of triacetin, which is a dense, oily liquid. In the context of the disclosures of Withenshaw, a skilled artisan might be motivated to seek a superior solid acetyl precursor, but would not be motivated to substitute TAED for a compound like triacetin, which has neither of the advantages discussed in the specification.

20. In my opinion, the Petitioner has cited Withenshaw because Withenshaw seemingly comprises several elements which are “missing” from Okano — chiefly, those relating to the creation of a continuous industrial process. However, as detailed above, Withenshaw cannot fill this gap, as its disclosures are incompatible with, and irrelevant to, the triacetin-based process described in Okano. Furthermore, Withenshaw seems to counsel against the use of liquid acetyl precursors such as triacetin, as all of the advantages discussed only apply to solid reagents such as TAED. A skilled artisan would not be motivated or able to take the process described in Okano and implement it in a continuous manner using the device of Withenshaw — the device is simply designed for a process which differs too much from the process of Okano.

V. RESERVATION OF RIGHTS

21. I reserve the right to supplement my opinions expressed herein in the future in order to respond to any arguments that Clean Chemistry and/or its expert(s) may raise and to consider new information as it becomes available to me.

VI. ATTESTATION

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false

statements and the like so made are punishable by fine or imprisonment, or both,
under Section 1001 of Title 18 of the United States Code.

/ Gregory T. Whiteker /

Gregory T. Whiteker, Ph.D.

Dated: December 5, 2025

EXHIBIT A

CV of Gregory T. Whiteker, Ph.D.

Gregory T. Whiteker, Ph.D.

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Pittsburgh, PA 15221
+1 317-753-9755
whiteker@gmail.com

PROFESSIONAL EXPERIENCE

Expert Witness

ENVIROTECH CHEMICAL SERVICES v. CLEAN CHEMISTRY June 2025 – present

- U.S. District Court for the Western District of Texas, Austin Division, Case No. 1:24-CV-01313-ADA
- Plaintiff expert witness involved in claim construction and discovery.

Independent Chemical Consultant

July 2022 – present

WHITEKER SCIENTIFIC CONSULTING LLC

- Expert in route scouting, agrochemicals, homogeneous catalysis, and Green Chemistry.
- Hands-on experience with continuous flow chemistry, precious metals management, computer-aided retrosynthesis planning, and Lean Startup methodology.
- Recipient of 2025 American Chemical Society Peter Dunn Team Award for Green Chemistry & Engineering.

Distinguished Research Fellow (highest level on Dow/Corteva technical ladder) June 2020 – Feb. 2022

CORTEVA AGRISCIENCE, Process Chemistry, Indianapolis, IN

- Designed novel asymmetric catalytic manufacturing process from renewable raw material to key chiral intermediate for new fungicide.
- Technical representative on corporate IP strategy team.
- Developed internal Green Chemistry metrics to support launch of Corteva 2030 Sustainability Goals.
- Corteva representative to American Chemical Society Green Chemistry Institute Pharmaceutical Roundtable.

Research Fellow

Oct. 2016 – June 2020

DOW AGROSCIENCES, Process Chemistry, Indianapolis, IN

- Led multidisciplinary 20 FTE team that developed capabilities for measuring rate of pesticide uptake by plants to optimize efficacy of agrochemical formulations.
- Member of technical review team for Corteva New Business Incubator platform.

Principal Research Scientist

Oct. 2012 – Oct. 2016

DOW AGROSCIENCES, Process Chemistry, Indianapolis, IN

- Led research team that identified sustainable chemistry inventions for manufacture of Adavelt fungicide.
- Led process research efforts (10 FTEs) for synthesis of 9-membered macrocyclic picolinamide fungicides.

Group Leader

Jan. 2010 – Oct. 2012

DOW AGROSCIENCES, Specialty Synthesis, Indianapolis, IN

- Led process research for multiple developmental molecules, including Rinskor herbicide, recipient of 2018 EPA Green Chemistry Challenge award and 2018 Agrow award.

Lead Research Specialist

June 2005 – Dec. 2009

DOW AGROSCIENCES, Specialty Synthesis, Indianapolis, IN

- Led scale-up activities for Arylex herbicide, 2016 R&D 100 award winner.

Senior Research Specialist

Feb. 2001 – June 2005

THE DOW CHEMICAL COMPANY, Catalyst Discovery group, Corporate R&D, South Charleston, WV

- Led 8 FTE international R&D effort to discover and develop state-of-art asymmetric hydroformylation catalysts of general use in pharmaceutical synthesis.
- Developed novel olefin hydroaminomethylation route to blockbuster drug, Fexofenadine.

Research Scientist

June 1991 – Feb. 2001

UNION CARBIDE CORPORATION, Catalyst Skill Center, South Charleston, WV

- Discovered and co-developed commercial, proprietary PhenoxyImine Zr polyolefin catalyst family used in process to manufacture Dow INFUSE block copolymers.
- Invented proprietary half-sandwich ethylene polymerization catalyst family and provided on-site technical support for gas-phase pilot plant and commercial trials.
- Led design and implementation of proprietary high-throughput synthesis and screening capability for heterogeneous catalysis.

EDUCATION

NIH & American Cancer Society Postdoctoral Fellow

Nov. 1989 - June 1991

MASSACHUSETTS INSTITUTE OF TECHNOLOGY, Department of Chemistry

Advisor: Professor Stephen J. Lippard

“Enantioselective Reactions of C₂-Symmetric Platinum Complexes with Single and Double-Stranded DNA”

Ph. D. Inorganic Chemistry (minor: Organic Chemistry)

Oct. 1989

UNIVERSITY OF WISCONSIN-MADISON, Department of Chemistry

Advisor: Professor Charles P. Casey

“Synthesis, Structure, and Hydroformylation Selectivity of Metal Complexes of Diphosphines with Large Natural Bite Angles”

B.S. Chemistry (with honors)

May 1985

EARLHAM COLLEGE, Richmond, IN

GRANTED US PATENTS

80. “Process for synthesis of picolinamides”, *US Patent 12,281,076*, April 22, 2025.
79. “Preparation of halogen analogs of picloram”, *US Patent 12,017,993*, June 25, 2024.
78. “Preparation of halogen analogs of picloram”, *US Patent 11,401,242*, Aug. 2, 2022.
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75. “Processes for the preparation of 4-alkoxy-3-(acyl or alkyl)oxypicolinamides”, *US Patent 10,358,423*, July 23, 2019.
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72. “Processes for the preparation of 4-alkoxy-3-acetoxypicolinamides”, *US Patent 10,259,789*, April 16, 2019.
71. “Processes for the preparation of 4-alkoxy-3-(acyl or alkyl)oxypicolinamides”, *US Patent 10,040,764*, Aug. 7, 2018.
70. “Processes for the preparation of 4-alkoxy-3-(acyl or alkyl)oxypicolinamides”, *US Patent 10,035,772*, July 31, 2018.
69. “2-(2,4-difluorophenyl)-1,1-difluoro-1-(5-substituted-pyridin-2-yl)-3-(1H-tetrazol-1-yl)propan-2-ols and processes for their preparation”, *US Patent 9,988,365*, June 5, 2018.
68. “Processes for the preparation of pesticidal compounds”, *US Patent 9,988,356*, June 5, 2018.
67. “Process for the preparation of 4-amino-5-fluoro-3-chloro-6-(substituted)picolinates”, *US Patent 9,981,911*, May 29, 2018.
66. “Process for the preparation of 4-alkoxy-3-hydroxypicolinic acids”, *US Patent 9,951,018*, April 24, 2018.
65. “2-(2,4-difluorophenyl)-1,1-difluoro-1-(5-substituted-pyridin-2-yl)-3-(1H-tetrazol-1-yl)propan-2-ols and processes for their preparation”, *US Patent 9,914,726*, Mar. 13, 2018.
64. “Processes for the preparation of pesticidal compounds”, *US Patent 9,908,864*, Mar. 6, 2018.
63. “Processes for the preparation of pesticidal compounds”, *US Patent 9,901,095*, Feb. 27, 2018.

62. "Processes for the preparation of pesticidal compounds", *US Patent 9,862,702*, Jan. 9, 2018.
61. "Process for the preparation of 4-amino-5-fluoro-3-chloro-6-(substituted)picolines", *US Patent 9,822,077*, Nov. 21, 2017.
60. "Processes for the preparation of pesticidal compounds", *US Patent 9,796,682*, Oct. 24, 2017.
59. "Processes for the preparation of pesticidal compounds", *US Patent 9,723,839*, Aug. 8, 2017.
58. "Process for the preparation of 4-alkoxy-3-hydroxypicolinic acids", *US Patent 9,718,783*, Aug. 1, 2017.
57. "Processes for the preparation of pesticidal compounds", *US Patent 9,670,178*, June 6, 2017.
56. "Processes for the preparation of pesticidal compounds", *US Patent 9,670,164*, June 6, 2017.
55. "Processes for the preparation of pesticidal compounds", *US Patent 9,661,849*, May 30, 2017.
54. "Process for the preparation of 4-amino-5-fluoro-3-chloro-6-(substituted)picolines", *US Patent 9,598,368*, Mar. 21, 2017.
53. "Processes for the preparation of pesticidal compounds", *US Patent 9,580,405*, Feb. 28, 2017.
52. "Processes for the preparation of pesticidal compounds", *US Patent 9,540,342*, Jan. 10, 2017.
51. "Process for the preparation of dibromohydroxypicolinonitrile", *US Patent 9,522,887*, Dec. 20, 2016.
50. "Process for the preparation of 4-alkoxy-3-hydroxypicolinic acids", *US Patent 9,481,651*, Nov. 1, 2016.
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47. "Processes for the preparation of pesticidal compounds", *US Patent 9,447,048*, Sept. 20, 2016.
46. "Process for the preparation of 4,5,6-trichloropicolinic acid", *US Patent 9,440,923*, Sept. 13, 2016.
45. "Processes for the preparation of pesticidal compounds", *US Patent 9,434,712*, Sept. 6, 2016.
44. "Processes for the preparation of pesticidal compounds", *US Patent 9,433,215*, Sept. 6, 2016.
43. "Processes for the preparation of pesticidal compounds", *US Patent 9,414,594*, Aug. 16, 2016.
42. "Fluoropicolinoyl fluorides and processes for their preparation", *US Patent 9,376,388*, June 28, 2016.
41. "Processes for the preparation of pesticidal compounds", *US Patent 9,260,396*, Feb. 16, 2016.
40. "Processes for the preparation of pesticidal compounds", *US Patent 9,255,083*, Feb. 9, 2016.
39. "Processes for the preparation of pesticidal compounds", *US Patent 9,255,082*, Feb. 9, 2016.
38. "Process for the preparation of 4-amino-5-fluoro-3-chloro-6-(substituted)picolines", *US Patent 9,212,141*, Dec. 15, 2015.
37. "New process for the synthesis of 3-(3-chloro-1H-pyrazol-1-yl)propanamide, an important intermediate in the preparation of XR-123", *US Patent 9,199,942*, Dec. 1, 2015.
36. "New process for the synthesis of 3-chloro-N-(3-chloro-1H-pyrazol-4-yl)propanamide, an important intermediate in the preparation of XR-123", *US Patent 9,174,962*, Nov. 3, 2015.
35. "New process for the synthesis of 3-(3-chloro-1H-pyrazol-1-yl)propanamide, an important intermediate in the preparation of XR-123", *US Patent 9,108,946*, Aug. 15, 2015.
34. "Processes for the preparation of pesticidal compounds", *US Patent 9,102,655*, Aug. 11, 2015.
33. "Processes for the preparation of pesticidal compounds", *US Patent 9,102,654*, Aug. 11, 2015.
32. "Process for the preparation of 4-amino-3-halo-6-(substituted)picolines and 4-amino-5-fluoro-3-halo-6-(substituted)picolines", *US Patent 9,096,526*, Aug. 4, 2015.
31. "Processes for the preparation of pesticidal compounds", *US Patent 9,085,564*, July 21, 2015.
30. "New process for the synthesis of 3-chloro-N-(3-chloro-1H-pyrazol-4-yl)propanamide, an important intermediate in the preparation of XR-123", *US Patent 9,044,017*, June 15, 2015.
29. "Process for the preparation of 4-amino-3-chloro-5-fluoro-6-(substituted)picolines", *US Patent 9,067,890*, June 30, 2015.
28. "Fluoropicolinoyl fluorides and processes for their preparation", *US Patent 9,045,427*, June 2, 2015.
27. "Processes for the preparation of pesticidal compounds", *US Patent 9,044,017*, June 2, 2015.
26. "Process for the preparation of 4-amino-3-chloro-5-fluoro-6-(substituted)picolines", *US Patent 8,993,772*, Mar. 31, 2015.
25. "Process for the preparation of 4-amino-3-chloro-5-fluoro-6-(substituted)picolines", *US Patent 8,927,731*, Jan. 6, 2015.
24. "New N-alkoxyamide compounds of 6-(substituted phenyl)-4-aminopicolines and 2-(substituted phenyl)-6-amino-4-pyrimidinecarboxylates, useful for controlling undesirable vegetation e.g. lambsquarters and velvetleaf", *US Patent 8,889,694*, Nov. 18, 2014.
23. "Process for the preparation of 4-amino-3-chloro-5-fluoro-6-(substituted)picolines", *US Patent 8,871,943*, Oct. 28, 2014.
22. "Process for the preparation of 4-amino-3-chloro-5-fluoro-6-(substituted)picolines", *US Patent 8,754,231*, Jun. 17, 2014.

21. "Process for the preparation of 4-amino-5-fluoro-3-halo-6-(substituted)picolinates", *US Patent 8,609,855*, Dec. 17, 2013.
20. "Process for the preparation of 4-amino-3-chloro-5-fluoro-6-(substituted)picolinates", *US Patent 8,609,853*, Dec. 17, 2013.
19. "Preparation of 3-halo-(aryl)-4-aminotetrahydropicolinates and their use as herbicides", *US Patent 8,598,086*, Dec. 3, 2013.
18. "Catalysts, processes for making catalysts, processes for making polyolefin compositions, and polyolefin compositions", *US Patent 8,592,615*, Nov. 26, 2013.
17. "Process for the preparation of 6-(aryl)-4-aminopicolinates", *US Patent 8,252,938*, Aug. 28, 2012.
16. "Insecticidal N-substituted(heteroaryl)alkyl sulfilimines", *US Patent 8,188,292*, May 29, 2012.
15. "Heteroaryl (substituted)alkyl N-substituted sulfoximines as insecticides", *US Patent 8,183,268*, Mar. 22, 2012.
14. "Heteroaryl (substituted)alkyl N-substituted sulfoximines as insecticides", *US Patent 8,017,788*, Sep. 13, 2011.
13. "Insecticidal N-substituted(heteroaryl)alkyl sulfilimines", *US Patent 7,754,888*, Jul. 13, 2010.
12. "Heteroaryl (substituted)alkyl N-substituted sulfoximines as insecticides", *US Patent 7,705,156*, Mar. 27, 2010.
11. "Hydroaminomethylation of olefins", *US Patent 7,220,884*, May 22, 2007.
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9. "Catalyst composition, method of polymerization and polymer therefrom", *US Patent 6,897,273*, May 24, 2005.
8. "Olefin oligomerization catalysts, their production and use", *US Patent 6,531,555*, Mar. 3, 2003.
7. "Olefin polymerization catalysts, their production and use", *US Patent 6,331,389*, Dec. 25, 2001.
6. "Olefin polymerization catalyst composition having increased activity", *US Patent 6,166,154*, Dec. 26, 2000.
5. "Ethylene polymers having superior clarity, enhanced toughness, low extractables and processing ease", *US Patent 6,159,617*, Dec. 12, 2000.
4. "Olefin polymerization catalyst having increased activity", *US Patent 5,912,202*, June 15, 1999.
3. "Catalysts for the production of polyolefins", *US Patent 5,527,752*, June 18, 1996.
2. "Asymmetric syntheses", *US Patent 5,491,266*, Feb. 13, 1996.
1. "Asymmetric syntheses", *US Patent 5,360,938*, Nov. 1, 1994.

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32. *Design and synthesis of florylpicoxamid, a fungicide derived from renewable raw materials*, Babij, N.R.; Choy, N.; Cismesia, M.A.; Couling, D.J.; Hough, N.M.; Johnson, P.L.; Klosin, J.; Li, X.; Lu, Y.; McCusker, E.O.; Meyer, K.G.; Renga, J.M.; Rogers, R.B.; Stockman, K.E.; Webb, N.J.; Whiteker, G.T.; Zhu, Y. *Green Chem.* **2020**, 22, 6047. **RSC Green Chemistry "Hot Article"**
31. *Potential Explosion Hazards Associated with the Autocatalytic Thermal Decomposition of Dimethyl Sulfoxide (DMSO) and Its Mixtures*, Yang, Q.; Sheng, M.; Li, X.; Tucker, C.; Vásquez Céspedes, S.; Webb, N.; Whiteker, G.T.; Yu, J. *Org. Proc. Res. Dev.* **2020**, 24, 916.
30. *Review of the Application of Green Chemistry Principles in the Crop Protection Industry*, Whiteker, G.T. *Org. Proc. Res. Dev.* **2019**, 23, 2109.
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27. *XL-Xantphos: Design and Synthesis of a Mechanistic Probe of Xantphos O-Coordination in Catalytic Reactions*, Whiteker, G.T.; Li, F.; Froese, R.D.J.; Tulchinsky, M.L.; Hazari, A.; Klosin, J. *Organometallics* **2019**, 38, 2233.
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24. *Discovery of the Aryl Heterocyclic Amine Insecticides: Synthesis, Insecticidal Activity, Field Results, Mode of Action and Bioavailability of a Leading Field Candidate*, Dent, W. H. III; Pobanz, M. A.; Geng,

- C.; Sparks, T. C.; Watson, G. B.; Letherer, T. J.; Beavers, K. W.; Young, C. D.; Adelfinskaya, Y. A.; Ross, R.; Whiteker, G.T.; Renga, J.M. *Pest Manag. Sci.* **2017**, *73*, 774.
23. *Computational and Experimental Studies of Regioselective S_NAr Halide Exchange (Halex) Reactions of Pentachloropyridine*, Froese, R.D.J.; Whiteker, G.T.; Peterson, T.H.; Arriola, D.J.; Renga, J.M.; Shearer, J.W. *J. Org. Chem.* **2016**, *81*, 10672.
22. *Aqueous Ligand-Free Suzuki Coupling Reactions of Basic Nitrogen-Containing Substrates in the Absence of Added Base: Observation of High Yields under Acidic Conditions*, Li, Z.; Gelbaum, C.; Jason S. Fisk, J. S.; Holden, B.; Jaganathan, A.; Pollet, P.; Whiteker, G.T.; Liotta, C. L. *J. Org. Chem.* **2016**, *81*, 8520.
21. *NMR Chemical Shifts of Trace Impurities: Industrially Preferred Solvents Used in Process and Green Chemistry*, Babij, N.R.; McCusker, E.O.; Whiteker, G.T.; Canturk, B.; Choy, N.; Creemer, L.C.; DeAmicis, C.V.; Hewlett, N.M.; Johnson, P.L.; Knobelsdorf, J.A.; Li, F.; Lorschach, B.A.; Nugent, B.M.; Ryan, S.J.; Smith, M.R.; Yang, Q., *Org. Process Res. Dev.* **2016**, *20*, 661. **ACS Editors Choice, OPRD #1 Most Read Article 2016-2025.**
20. *The Discovery of Arylex™ Active and Rinskor™ Active: Two Novel Auxin Herbicides*, J.B. Epp, R.E. Gast, P.R. Schmitzer, N.M. Irvine, W.C. Lo, J.S. Richburg, C.T. Lowe, J.M. Ruiz, A.L. Alexander, T.L. Siddall, W.K. Brewster, J.D. Webster, K. Bryan, M.R. Weimer, A.M. Buysse, C.N. Yerkes, N. Satchivi, J.F. Daeuble, T.W. Balko, G.T. Whiteker, S.C. Fields, R.A. Green, J. Renga, *Bioorg. Med. Chem.* **2016**, *24*, 362.
19. *Nickel- and Palladium-Catalyzed Coupling of Aryl Fluorosulfonates with Aryl Boronic Acids Enabled by Sulfuryl Fluoride*, Hanley, P.S.; Ober, M.S.; Krasovskiy, A.; Whiteker, G.T.; Kruper, W.J., *ACS Catalysis* **2015**, *5*, 5041.
18. *Synthesis of Novel Fluoropicolinate Herbicides by Cascade Cyclization of Fluoroalkyl Alkynylimines*, Johnson, P.L.; Renga, J.M.; Galliford, C.V.; Whiteker, G.T.; Giampietro, N.C., *Org. Lett.* **2015**, *17*, 2905. **Featured in Chemical & Engineering News.**
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1. *Phosphines as Ligands. Bite Angle Effects for Diphosphines*, van Leeuwen, P.W.N.; Casey, C.P.; Whiteker, G.T., in *Recent Advances in Rhodium Catalyzed Hydroformylation*, van Leeuwen, P.W.N.; Claver, C., Eds., Kluwer Press, 2000.

INVITED PRESENTATIONS

16. ACS Green Chemistry Institute Pharmaceutical Roundtable, October 2018
15. Yale University, May 2017
14. Green Chemistry Gordon Research Conference, August 2016
13. Inorganic Reaction Mechanisms Gordon Research Conference, March 2015
12. Purdue University, Dec. 2013
11. Butler University, May 2012
10. Symposium for ACS Award for Service to Inorganic Chemistry, presented to Chuck Casey, ACS National meeting, March 2011
9. Conference on Catalysis of Organic Reactions, April 2010
8. University of Kansas, Center for Environmentally Beneficial Catalysis, January 2005
7. INFORMEX Homogeneous Catalysis Workshop, January 2004
6. Chiral Europe, May 2003
5. Department of Chemistry, West Virginia University, February 2003
4. Frontiers in Catalysis series, University of Wisconsin, February 2002
3. Conference on Catalysis of Organic Reactions, April 2002
2. ACS National Meeting, Chuck Casey symposium, August 2002
1. ACS National meeting, Homogeneous catalysis tutorial session, August 2001

CONFERENCE PRESENTATIONS

10. *Use of Green Chemistry Principles in the Design of Crop Protection Products and Processes*, IUPAC Crop Protection Congress (2019).
9. *Use of Green Chemistry Principles in the Design of Crop Protection Products and Processes*, ACS National Meeting (2018).
8. *The Role of Modern Crop Protection Products in a Growing World*, Gordon Research Conference on Green Chemistry, Stowe, VT, August 2016.
7. *Design and synthesis of a mechanistic probe of Xantphos O-Coordination in Rh-catalyzed olefin hydroformylation and Pd-catalyzed arylation reactions*, Inorganic Reaction Mechanisms Gordon Research Conference, Whiteker, G.T.; Li, F.; Klosin, J. Tulchinsky, M.L., Galveston, TX, March 2015.
6. *Process research for DAS-534: New routes to 6-arylpicolinate herbicides*, Whiteker, G.T.; Froese, R.D.; Arndt, K.E.; Renga, J.M.; Zhu, Y.; Yang, Q.; Podhorez, D.E.; Roth, G.A.; Lowe, C.T., 248th ACS National Meeting (2014), AGRO-856.
5. *Applications of rhodium-catalyzed hydroformylation to the synthesis of pharmaceuticals and agrochemicals*, Whiteker, G.T., 234th ACS National Meeting (2007), INOR-557.
4. *Effects of dihedral angle of biaryl-bridged bisphosphite ligands on selectivity of rhodium-catalyzed asymmetric hydroformylation*, Cobley, C.J.; Klosin, J.; Froese, R.D.J.; Whiteker, G.T.; Abboud, K.A., 232nd ACS National Meeting (2006), INOR-061.
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