UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

INNOSCIENCE (ZHUHAI) TECHNOLOGY COMPANY, LTD.,
AND
INNOSCIENCE AMERICA, INC.,
Petitioner,

v.

EFFICIENT POWER CONVERSION CORPORATION,
Patent Owner.

Case No. IPR2023-01381
U.S. Patent 8,350,294

PETITIONER'S UPDATED EXHIBIT LIST

Further to 37 C.F.R. § 42.63(e), Petitioner hereby submits a current listing of its exhibits to counsel for Patent Owner. Exhibit 1049 was filed on P-TACTS and served via email to counsel of record for the Patent Owner.

Exhibits	**Description**
Ex. 1001	U.S. Patent No. 8,350,294 B2 ("the '294 patent")
Ex. 1002	Prosecution History of the '294 Patent ("*Prosecution History*")
Ex. 1003	Declaration of Dr. James Richard Shealy ("*Shealy*")
Ex. 1004	Curriculum Vitae of Dr. James Richard Shealy
Ex. 1005	U.S. Patent Application Publication No. US 2007/0164315 A1 to Smith ("*Smith*")
Ex. 1006	U.S. Patent Application Publication No. US 2008/0087915 A1 to Uemoto ("*Uemoto*")
Ex. 1007	Japanese Patent Publication No. JP2006-253224 A to Kigami.
Ex. 1008	Certified English Translation of Japanese Patent Publication No. JP2006-253224 A ("*Kigami*")
Ex. 1009	Translator's Declaration for Certified English Translation of JP 2006-253224 A.
Ex. 1010	Umesh K. Mishra et al., *AlGaN/GaN HEMTs—An Overview of Device Operation and Applications*, Proceedings of the IEEE, vol. 90, no. 6 (June 2002), pp. 1022-1031 ("*Mishra*").
Ex. 1011	Excerpts of Rüdiger Quay, *Gallium Nitride Electronics*, vol. 96, Springer Science & Business Media (2008) ("*Quay*").
Ex. 1012	Excerpts of Stephen J. Pearton et al., *Gallium Nitride Processing for Electronics, Sensors and Spintronics*, Springer Science & Business Media (2006) ("*Pearton*").
Ex. 1013	U.S. Patent Application Publication No. US 2004/0012015 A1 to *Saxler* ("*Saxler015*")
Ex. 1014	X. Hu et al., *Enhancement mode AlGaN/GaN HFET with selectively grown* pn *junction gate*, Electronics Letters, vol. 36, no. 8 (2000), pp. 753-754 ("*Hu*").
Ex. 1015	Excerpts of Chang Soo Suh, Enhancement-Mode GaN-Based HEMTs for High-Voltage Switching Applications (Dec. 2008) (Ph.D. dissertation, University of California, Santa Barbara) ("*Suh*").
Ex. 1016	U.S. Patent Application Publication No. US 2005/0145874 A1 to *Saxler* ("*Saxler874*")

Ex. 1017	Chris G. Van de Walle et al., "Hydrogen in III-V Nitrides," *Semiconductors and Semimetals*, vol. 57 (1998), pp. 157-184 ("*Van de Walle*").
Ex. 1018	Shuji Nakamura et al., *Hole Compensation Mechanism of P-Type GaN Films*," Japanese Journal of Applied Physics, vol. 31 (1992), pp. 1258-1266 ("*Nakamura*").
Ex. 1019	Complainant's Proposed Constructions & Respondents' Proposed Constructions in related International Trade Commission investigation: *In the Matter of Certain Semiconductor Devices, and Methods of Manufacturing Same and Products Containing the Same*, Inv. No. 337-TA-1366, dated September 5, 2023 ("*ITC Constructions*").
Ex. 1020	U.S. Patent No. 5,985,687 ("*Bowers*")
Ex. 1021	U.S. Patent Application Publication No. 2002/0167023 A1 to Chavarkar ("*Chavarkar*")
Ex. 1022	U.S. Patent Application Publication No. 2003/0102482 A1 to Saxler ("*Saxler482*")
Ex. 1023	Shuji Nakamura – Biographical, NobelPrize.org, Nobel Prize Outreach AB 2023, www.nobelprize.org/prizes/physics/2014/nakamura/biographical/ (last visited Aug. 28, 2023) ("*Biographical Nakamura*")
Ex. 1024	Excerpts of Vasco Matias, Defect characterization of Europium implanted Gallium Nitride (2008) (Ph.D. dissertation, KU University, Belgium) ("*Matias*").
Ex. 1025	Email exchange between Petitioner and Board, Board email dated January 9, 2024.
Ex. 1026	*Merriam-Webster Dictionary* (excerpt) (2022)
Ex. 1027	Prepositions of Place in English Grammar, LanGeek.co, Prepositions and Conjunctions, https://langeek.co/en/grammar/course/69/prepositions-of-place (last visited Jan. 15, 2024)
Ex. 1028	Transcript of Conference Call with the Board, taken on August 6, 2024
Ex. 1029	Email exchange between Petitioner and Patent Owner, Petitioner email dated August 7, 2024.
Ex. 1030	Email exchange between Petitioner and Board, Board email dated August 8, 2024.
Ex. 1031	Exhibit 28 to Verified Complaint in International Trade Commission *Certain Semiconductor Devices, And methods Of Manufacturing Same And Products Containing the Same*. Inv. No. 337-TA-1366.

Ex. 1032	Exhibit RX-0255 in Inv. No. 337-TA-1366. Book: E. Fred Schubert. Doping in III-V semiconductors. AT&T Bell Laboratories, New Jersey. (1993)
Ex. 1033	Supplemental Reply Declaration of Dr. James Richard Shealy
Ex. 1034	Excerpts of Revised and Corrected Transcript, Open Sessions, Inv. No. 337-TA-1366
Ex. 1035	Taiwanese Patent Office Publication No. TW200414540A to Sheu.
Ex. 1036	Certified English Translation of Taiwanese Patent Office Publication No. TW200414540A ("*Sheu*")
Ex. 1037	Translator's Declaration for Certified English Translation of TW200414540A.
Ex. 1038	C. S. Suh et al., "p-GaN/AlGaN/GaN Enhancement-Mode HEMTs," 2006 64th Device Research Conference, June 2006, pp. 163-164 ("*Suh2006*")
Ex. 1039	Supplemental Declaration of James Richard Shealy, Ph.D. in Support of Petitioner's Opposition To Patent Owner's Motion To Amend ("ShealyOpp."), Dated September 4, 2024.
Ex. 1040	U.S. Patent Publication No. 2006/1045189 A1 to Beach et al. ("*Beach189*")
Ex. 1041	Beach Jr, Robert Andrew. Column III nitride growth, characterization and devices. California Institute of Technology, 2001 ("*BeachThesis*")
Ex. 1042	Transcript of Conference Call with the Board, taken on November 14, 2024
Ex. 1043	Meneghini, M., et al. "GaN-based lateral and vertical devices." Springer Handbook of Semiconductor Devices (2022): 525-578.
Ex. 1044	Hidayat, H. et al. "Exploring the impact of AlGaN barrier thickness and temperature on normally-on GaN HEMT performance." Engineering Research Express 6.2 (2024): 025307
Ex. 1045	Excerpts of Daintith, John, ed. *A dictionary of chemistry*. Sixth Edition. OUP Oxford, 2008: p. 290
Ex. 1046	Excerpts of McGraw-Hill Dictionary of Chemistry, 2nd ed.; McGraw-Hill: New York, 2003; p. 26
Ex. 1047	Excerpts of S. Hamady, "New concepts for normally-off power gallium nitride (GaN) high electron mobility transistor (HEMT)," Ph.D. dissertation, Dept. Micro Nanotechnol./Microelectron., Universite Toulouse III Paul Sabatier, Toulouse, France, 2015
Ex. 1048	Excerpts of Modolo, Nicola. "Physics-Based Compact Model for p-GaN/AlGaN/GaN Application: Understanding of Degradation After

	Gamma-Ray Irradiation." Universita Degli Studi Di Padova, Padova, Italy (2019).
Ex. 1049	Public Version of Commission Opinion, *Certain Semiconductor Devices, And Methods Of Manufacturing Same And Products Containing The Same*, Inv. No. 337-TA-1366

Dated: December 9, 2024

By: /Kara A. Specht/
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CERTIFICATE OF SERVICE

The undersigned hereby certifies that the foregoing **Petitioner's Updated Exhibit List and Exhibit 1049** were served on December 9, 2024, via email directed to counsel of record for the Patent Owner at the following:

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