

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

DYNATEMP INTERNATIONAL INC.
and
FLUOROFUSION SPECIALTY CHEMICALS, INC.
Petitioner

v.

R421A LLC
Patent Owner

Case No. IPR2023-00619
Patent No. 11,345,840 B2

PETITIONERS EXHIBIT LIST

Exhibit No.	Description
1001	U.S. Patent No. 11,345,840 to Kenneth M. Ponder et al. (“’840 patent”)
1002	Prosecution History of the ’840 patent (“’840 Prosecution History”)
1003	Declaration of Dr. Michael G. Koehler
1004	Curriculum Vitae of Dr. Michael G. Koehler
1005	U.S. Patent 5,492,643 (“’643 Patent”)
1006	Provisional Application No. 60/501,049 (“’049 Provisional”)
1007	Prosecution History of Application No. 10/937,736 (“’736 Application Prosecution History”)
1008	Prosecution History of U.S. Patent No. 9,982,179 (“’179 Prosecution History”)
1009	Prosecution History of U.S. Patent No. 10,703,949 (“’949 Prosecution History”)
1010	Petition for IPR of the ‘179 Patent
1011	Patent Owner Preliminary Response to Petition of ‘179 Patent
1012	PTAB Discretionary Denial of Petition for IPR of ‘179 Patent
1013	Japanese Patent Document H05-117643 (“Yoshida”)
1014	U.S. Patent No. 6,640,841 (“Thomas”)
1015	Published PCT Application No. WO/93/24597 (“Schnur”)
1016	U.S. Patent No. 6,606,868 (“Powell”)
1017	U.S. Patent No. 6,207,071 (“Takigawa”)
1018	Siva Gopalnarayanan, <i>Choosing the Right Refrigerant</i> , MECH. ENG’G. 92 (Oct. 1998)
1019	Kramer, “Why Not Mineral Oil?”, 41(11) ASHRAE Journal 55 (Nov 1999) (“Kramer”)
1020	RMS Website from early 2002 - “FreeZone Overview” page
1021	Japanese Patent Document 07-042454 (“Segami”)

Exhibit No.	Description
1022	Radermacher & Jung, <i>Theoretical Analysis of Replacement Refrigerants for R22 for Residential Use</i> , Report for US EPA, EPA/400/1-91/041 (1992)
1023	Excerpts of Mr. Ponder Deposition testimony (including pages 87-89, 139-143, 201-202, 214-215)
1024	Original Japanese version of EX1013 (Yoshida)
1025	Agreed Claim Constructions in <i>R421A LLC, d/b/a Choice Refrigerants v. Dynatemp International, Inc. et. al.</i> , 5:20-cv-00147 (E.D. N.C.), which has been consolidated with <i>Dynatemp International Inc. et al. v. RMS of Georgia et al.</i> , 5:20-cv-142 (E.D. N.C.), pending (collectively, “Patent Family Litigation”)
1026	Haynes, <i>Thermophysical Properties of HCFC Alternatives</i> , NIST Report DOE/CE/23810-80 (1996),
1027	Widiatmo et al., <i>Liquid Densities of Alternative Refrigerants Blended with Difluoromethane, Pentafluoroethane, and 1,1,1,2-Tetrafluoroethane</i> , 42 J. Chem. Eng. Data, 270-277 (1997) (“Widiatmo”),
1028	Gunther & Steimle, <i>Mixing Rules for the Specific Heat Capacities of Several HFC-Mixtures</i> , 20 Int. J. Refrig. 235 (1997),
1029	McLinden, <i>Thermodynamic Properties of CFC Alternatives: A Survey of the Available Data</i> , 13 Int. J. Refrig. 149 (1990)
1030	McLinden, <i>The History of NIST’s Refrigerants Program II. Thermophysical Properties Research</i> , 107 ASHRAE TRANSACTIONS 699, CI-01-09-5 (2001)
1031	Didion, <i>The History of NIST's Refrigerants Program: I. Zeotropic Mixture Cycles and Heat Transfer</i> , 107 ASHRAE Transactions 688, 692 (2001)
1032	Holcombe et al., <i>Selected Thermodynamic Properties for Mixtures of R-32 (Difluoromethane), R-125 (Pentafluoroethane), R-134A (1,1,1,2-Tetrafluoroethane), R-143A (1,1,1-Trifluoroethane), R41 (Fluoromethane), R-290 (Propane), and R-744 (Carbon Dioxide)</i> , NIST Tech. Note 1397 (1997)

Exhibit No.	Description
1033	RMS Website from early 2002 - “FreeZone Chiller Conversion” page
1034	U.S. Pat. No. 5,254,280 (“280 Patent”)
1035	Killinger & Killinger, HEATING & COOLING ESSENTIALS, The Goodheart-Willcox Company, Inc. (2003)
1036	Jim Calm, <i>Comparative Properties and Efficiency of R-421A for Retrofit Use to Replace R-22</i> (2013), available at https://www.choicerefrigerants.com/resources
1037	Domanski et al., <i>NIST Vapor Compression Cycle Design Program</i> , NIST (2003) (describing CYCLE_D version 3.0), available at https://tsapps.nist.gov/publication/get_pdf.cfm?pub_id=100984 .
1038	McLinden & Didion, <i>CFCs – Quest for Alternative Refrigerants</i> , 29-12 ASHRAE J. 32, 36 (1987)
1039	Published Patent Application US2002/0046568 (Thomas et al.), which has the same disclosure as U.S. Patent No. 6,640,841 (EX1014)
1040	Brown et al., CYCLE_D, Version 6.
1041	McLinden & Huber, <i>(R)Evolution of Refrigerants</i> , 65 J. CHEM. ENG. DATA § 2.4.1 (2020), available at https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8739722/pdf/nihms-1642330.pdf .
1042	Original Japanese version of EX1021 (Segami)
1043	Certificate of Translation for EX1021 (Segami)
1044	Certificate of Translation for EX1013 (Yoshida)
1045	ASHRAE Designation and Safety Classification of Refrigerants

Respectfully submitted,

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CERTIFICATE OF SERVICE

Pursuant to 37 CFR §§ 42.6(e)(4)(i) et seq. and 42.105(b), the undersigned certifies that on February 22, 2023, a copy of the foregoing was provided via Federal Express, next day, to the Patent Owner by serving the correspondence address of record as follows:

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