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Assignment Recordation Services Patent and Trademark Office Director of the U.S. Patent 103581782 and Trademark Office P.O. Box 1450 Alexandria, VA 22313-1450 Attorney Docket No. 143627 Please record the attached original document or copy thereof. Name of conveying party: 2. A. Name and address of receiving party: Takanori SASAKI TOYOTA JIDOSHA KABUSHIKI KAISHA 1, TOYOTA-CHO Additional name(s) of conveying party(ies) attached? TOYOTA-SHI, AICHI-KEN ☐ Yes 🛛 No 471-8571 JAPAN Additional name(s) & address(es) attached? A. Nature of conveyance: ☐Yes 🛛 No  $\boxtimes$ Merger Assignment Security Agreement ☐ Change of Name Other Execution Date: June 26, 2009 This document is being filed together with a new application.  $\boxtimes$ Patent No.(s) Patent Application No. \_\_\_\_ Title of Application: GAS CONCENTRATION DETECTION APPARATUS Name and address of party to whom correspondence Total number of applications and patents involved: 1 concerning document should be mailed: Name: James A. Oliff Total fee (37 CFR 3.41)......\$ 40.00 Enclosed (Check No. 224192) OLIFF & BERRIDGE, PLC Credit any overpayment or charge any underpayment to Address: P.O. Box 320850 deposit account number 15-0461. Alexandria, VA 22320-4850 Statement and signature. 11/25/2009 MJAMA1 00000025 12451647 To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original decument.

49. 9 the original decument Date: November 23, 2009 James A. Oliff, Registration No. 27,075 Randi B. Isaacs, Registration No. 56,046 Total number of pages including cover sheet, attachments, and document:  $\underline{2}$ 

> **PATENT** REEL: 023573 FRAME: 0885

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## **ASSIGNMENT**

In consideration of the premises and other good and valuable consideration in hand paid, the receipt and sufficiency of which is hereby acknowledged, the undersigned, Takanori SASAKI who has made a certain new and useful invention, hereby sells, assigns and transfers unto TOYOTA JIDOSHA KABUSHIKI KAISHA 1, Toyota-cho, Toyota-shi Aichi-ken, 471-8571 JAPAN its successors and assigns (hereinafter designated "ASSIGNEE") the entire right, title and interest for the United States of America as defined in 35 U.S.C. 100 in the invention entitled Gas Concentration Detection Apparatus for which an application for United States Letters Patent was executed on even date herewith, and the undersigned hereby authorizes and requests the United States Commissioner of Patents and Trademarks to issue any and all United States Letters Patent which may be granted therefor and any and all extensions, divisions, reissues, substitutes, renewals, continuations, or continuations in part thereof, and the right to all benefits under the international Convention for the Protection of Industrial Property to the said ASSIGNEE, for its interest as ASSIGNEE, its successors, assigns and legal representatives; the undersigned agrees that the attorneys of record in said application shall hereafter act on behalf of said ASSIGNEE; AND the undersigned hereby agrees to transfer a like interest, and to render all necessary assistance in making application for and obtaining original, divisional, reissued or extended Letters Patent of the United States, upon request of the said ASSIGNEE, its successors, assigns and legal representatives, and without further remuneration, in and to any improvements, and applications for patent based thereon, growing out of or related to the said invention; and to execute any papers by the said ASSIGNEE, its successors, assigns and legal representatives, deemed essential to ASSIGNEE's full protection and title in and to the invention hereby transferred. SIGNED on the date indicated aside my signature: INVENTOR DATE SIGNED Lasaki' June 26, 200 9

> PATENT REEL: 023573 FRAME: 0886

**RECORDED: 11/23/2009**