



Certificate No.: R001-201028

財團法人全國認證基金會
Taiwan Accreditation Foundation

Certificate of Accreditation

This is to certify that

National Measurement Laboratory, R.O.C.

321, Sec. 2, Kuang Fu Rd., Hsinchu, Taiwan, R.O.C.

is accredited in respect of Reference Material Producer

Accreditation Criteria : ISO 17034:2016
Accreditation Number : R001
Originally Accredited : April 16, 2012
Effective Period : October 28, 2020 to October 27, 2025
Accredited Scope : Analysis gas, see described in the Appendix

Ching-Chang Lien
President, Taiwan Accreditation Foundation
Date : October 28, 2020



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Accreditation Number : R001
Producer Head : LIN, Tzeng-Yow

Category and Subcategory of RMs Produced (Refer to ILAC G12:2000, Appendix B)	RM Types (CRM/RM)	Item/Parameter (including ranges and uncertainties if appropriate)	Measurement Method /Technique	Approach used to assign property values	Approval Signatory
A7.1 Gas mixtures	CRM	C ₃ H ₈ in N ₂ : (0.1 to 50) mmol/mol U _r = (0.5 to 1.0) % CF ₄ in N ₂ : (100 to 3000) μmol/mol U _r = (0.3 to 1.0) % CH ₄ in Air : (1.0 to 20) mmol/mol U _r = (0.3 to 0.8) % CH ₄ in N ₂ : (>1.0 to 100) mmol/mol U _r = (0.1 to 0.8) % CH ₄ in N ₂ : (100 to 1000) μmol/mol U _r = (0.8 to 1.0) % CO in N ₂ : (>0.1 to 100) mmol/mol U _r = (0.2 to 1.0) % CO in N ₂ : (1.0 to 100) μmol/mol U _r = (1.0 to 3.0) %	ISO 6142-1 ISO 6143	gravimetric method	LIN, Tsai-Yin HUANG, Chiung-Kun LIU, Hsin-Wang



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		CO ₂ in N ₂ : (>1.0 to 160) mmol/mol $U_r = (0.1 \text{ to } 0.8) \%$ CO ₂ in N ₂ : (100 to 1000) μmol/mol $U_r = (0.2 \text{ to } 1.2) \%$ NO in N ₂ : (50 to 2000) μmol/mol $U_r = (0.8 \text{ to } 2.0) \%$ O ₂ in N ₂ : (>10 to 250) mmol/mol $U_r = (0.3 \text{ to } 1.0) \%$ O ₂ in N ₂ : (1.0 to 10) μmol/mol $U_r = (1.5 \text{ to } 3.0) \%$ O ₂ in N ₂ : (1.0 to 10) mmol/mol $U_r = (0.5 \text{ to } 1.5) \%$ SF ₆ in N ₂ : (10 to 1000) μmol/mol $U_r = (0.5 \text{ to } 1.5) \%$ SO ₂ in N ₂ : (50 to 2000) μmol/mol $U_r = (0.5 \text{ to } 1.5) \%$			
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(Null below)