



Certificate No.: R001-190104

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 Kuang Fu Rd., Sec.2 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** : April 16, 2015 to April 15, 2020  
**Accredited Scope** : Analysis gas, see described in the Appendix

*Chung-Lin Wang*

Chung-Lin Wang  
President, Taiwan Accreditation Foundation  
Date : January 4, 2019



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Producer Head : LIN, Tzeng-Yow

Category and Subcategory of RMs Produced (Refer to ILAC G12:2000, Appendix B)	Item/Parameter (including ranges and uncertainties if appropriate)	Approval Signatory
A7.1 Gas mixtures (CRM)	CO in N <sub>2</sub> : (1.0 to 100) μmol/mol <i>U<sub>crm</sub></i> =(1.0 to 3.0) %	LIN, Tsai-Yin
	CO in N <sub>2</sub> : (>0.1 to 100) mmol/mol <i>U<sub>crm</sub></i> =(0.2 to 1.0) %	CHANG, Chun-Ling
	CO <sub>2</sub> in N <sub>2</sub> : (100 to 1000) μmol/mol <i>U<sub>crm</sub></i> =(0.2 to 1.2) %	HUANG, Chiung-Kun
	CO <sub>2</sub> in N <sub>2</sub> : (>1.0 to 160) mmol/mol <i>U<sub>crm</sub></i> =(0.1 to 0.8) %	LIU, Hsin-Wang
	CH <sub>4</sub> in N <sub>2</sub> : (100 to 1000) μmol/mol <i>U<sub>crm</sub></i> =(0.8 to 1.0) %	
	CH <sub>4</sub> in N <sub>2</sub> : (>1.0 to 100) mmol/mol <i>U<sub>crm</sub></i> =(0.1 to 0.8) %	
	C <sub>3</sub> H <sub>8</sub> in N <sub>2</sub> : (0.1 to 50) mmol/mol <i>U<sub>crm</sub></i> =(0.5 to 1.0) %	
	CF <sub>4</sub> in N <sub>2</sub> : (100 to 3000) μmol/mol <i>U<sub>crm</sub></i> =(0.3 to 1.0) %	
	SF <sub>6</sub> in N <sub>2</sub> : (10 to 1000) μmol/mol <i>U<sub>crm</sub></i> =(0.5 to 1.5) %	
	NO in N <sub>2</sub> : (50 to 2000) μmol/mol <i>U<sub>crm</sub></i> =(0.8 to 2.0) %	
	SO <sub>2</sub> in N <sub>2</sub> : (50 to 2000) μmol/mol <i>U<sub>crm</sub></i> =(0.5 to 1.5) %	
	O <sub>2</sub> in N <sub>2</sub> : (1.0 to 10) μmol/mol <i>U<sub>crm</sub></i> =(1.5 to 3.0) %	
	O <sub>2</sub> in N <sub>2</sub> : (1.0 to 10) mmol/mol <i>U<sub>crm</sub></i> =(0.5 to 1.5) %	
	O <sub>2</sub> in N <sub>2</sub> : (>10 to 250) mmol/mol <i>U<sub>crm</sub></i> =(0.3 to 1.0) %	
	CH <sub>4</sub> in Air : (1.0 to 20) mmol/mol <i>U<sub>crm</sub></i> =(0.3 to 0.8) %	

(Null below)