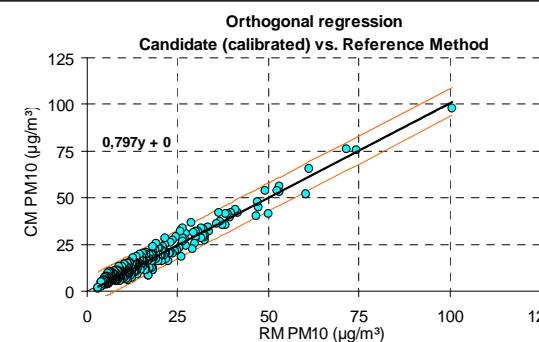
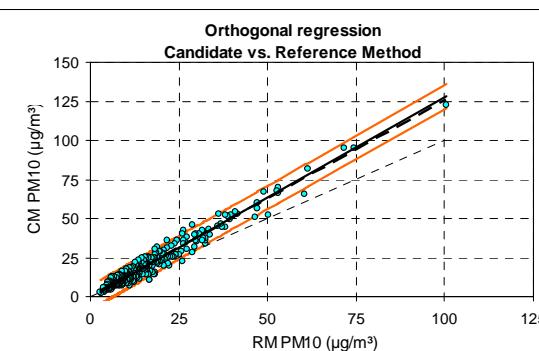


Gleichwertigkeitsnachweis für die Messergebnisse der Partikelmonitore mit dem Referenzverfahren - PM 2,5, 2012

GENERAL SETTINGS					
Substance	Unit	Limit value	RM uncertainty	Confidence Level	Max Uncertainty
PM10	$\mu\text{g}/\text{m}^3$	25	0,67	0,975	25%
	Spring	Summer	Fall	Winter	
Starting month:	3	6	9	12	
DATA SELECTION					
Column	Value	Exclude instead of exclusive?		Status	
Filter 1				Ignore	
Filter 2				Ignore	
Filter 3				Ignore	
Filter 4				Ignore	
CALIBRATION SETTING					
Calibration based on:	SLOPE TROUGH ORIGIN		OK		
Comments:					
RAW DATA			RESULTS AFTER CALIBRATING		
Regression	$0,782y + 0,461$		N (Spring)	0	n
Regression (i=0)	$0,797y$		N (Summer)	0	n
N	363	n	N (Fall)	0	n
Outliers	14	n	N (Winter)	0	n
Outliers	4%	%	Outliers	6	%
Mean CM	18,5	$\mu\text{g}/\text{m}^3$	Mean CM	14,8	$\mu\text{g}/\text{m}^3$
Mean RM	15,0	$\mu\text{g}/\text{m}^3$	Mean RM	15,0	$\mu\text{g}/\text{m}^3$
Number of RM > 0,5LV	157	n	Number of CM > 0,5LV	149	n
Number of RM > LV	50	n	Number of CM > LV	51	n
REGRESSION RESULTS (RAW)			REGRESSION RESULTS (CALIBRATED)		
Slope b	1,279	significant	Slope b	1,014	
Uncertainty of b	0,014		Uncertainty of b	0,011	
Intercept a	-0,589	significant	Intercept a	-0,389	
Uncertainty of a	0,276		Uncertainty of a	0,220	
r^2	0,954		r^2	0,954	
Slope b forced trough origin	1,255				
Uncertainty of b (forced)	0,0090				
EQUIVALENCE TEST (RAW)			EQUIVALENCE TEST (CALIBRATED)		
Uncertainty of calibration	0,45	$\mu\text{g}/\text{m}^3$	Calibration	$0,797y + 0$	
Uncertainty of calibration (forced)	0,23	$\mu\text{g}/\text{m}^3$	u(calibration)	0,23	$\mu\text{g}/\text{m}^3$
Random term	3,27	$\mu\text{g}/\text{m}^3$	Random term	2,58	$\mu\text{g}/\text{m}^3$
Additional uncertainty (optional)	0,00	$\mu\text{g}/\text{m}^3$	Additional uncertainty (optional)	0,00	$\mu\text{g}/\text{m}^3$
Bias at LV	6,39	$\mu\text{g}/\text{m}^3$	Bias at LV	-0,05	$\mu\text{g}/\text{m}^3$
Combined uncertainty	7,18	$\mu\text{g}/\text{m}^3$	Combined uncertainty	2,58	$\mu\text{g}/\text{m}^3$
Expanded relative uncertainty	57,4%	fail	Expanded relative uncertainty	20,6%	pass
Ref sampler uncertainty	0,67	$\mu\text{g}/\text{m}^3$	Ref sampler uncertainty	0,67	$\mu\text{g}/\text{m}^3$
Limit value	25	$\mu\text{g}/\text{m}^3$	Limit value	25	$\mu\text{g}/\text{m}^3$
STATISTICAL INFORMATION					
Raw data, free intercept					
dxdy	dyy	dxx	rss		u(b)
65943	85869	53084	4024		0,014
Raw data, slope forced trough origin					
Sxy	Syy	Sxx		u(b)[MaxLike] i=0	u(b forced)
166531	210559	134229		0,009	0,009
Calibrated, free intercept					
dxdy	dyy	dxx	rss		u(b)
52540	54510	53084	2539		0,011
BACKGROUND AUTOMATION					
Chart descriptions		Conf Lv L List	Calibration List	Stdev of all calibrations in use	
Description x-axis	RM PM10 ($\mu\text{g}/\text{m}^3$)	97,5%	Free regression Trough origin	0	0,00902
Description y-axis	CM PM10 ($\mu\text{g}/\text{m}^3$)	97,5%		Calib. In use (a)	Calib. In use (b)
Conf Lv L	Calibration Type	Filter List		0,000	0,797
2,25	-1	Exclude			
Calibration uncertainty	Calibration_a	Calibration_b	u(bs reference)	CI Regression	CI Calibrated
0,23	0,000	0,797	0,67	7,51	7,53

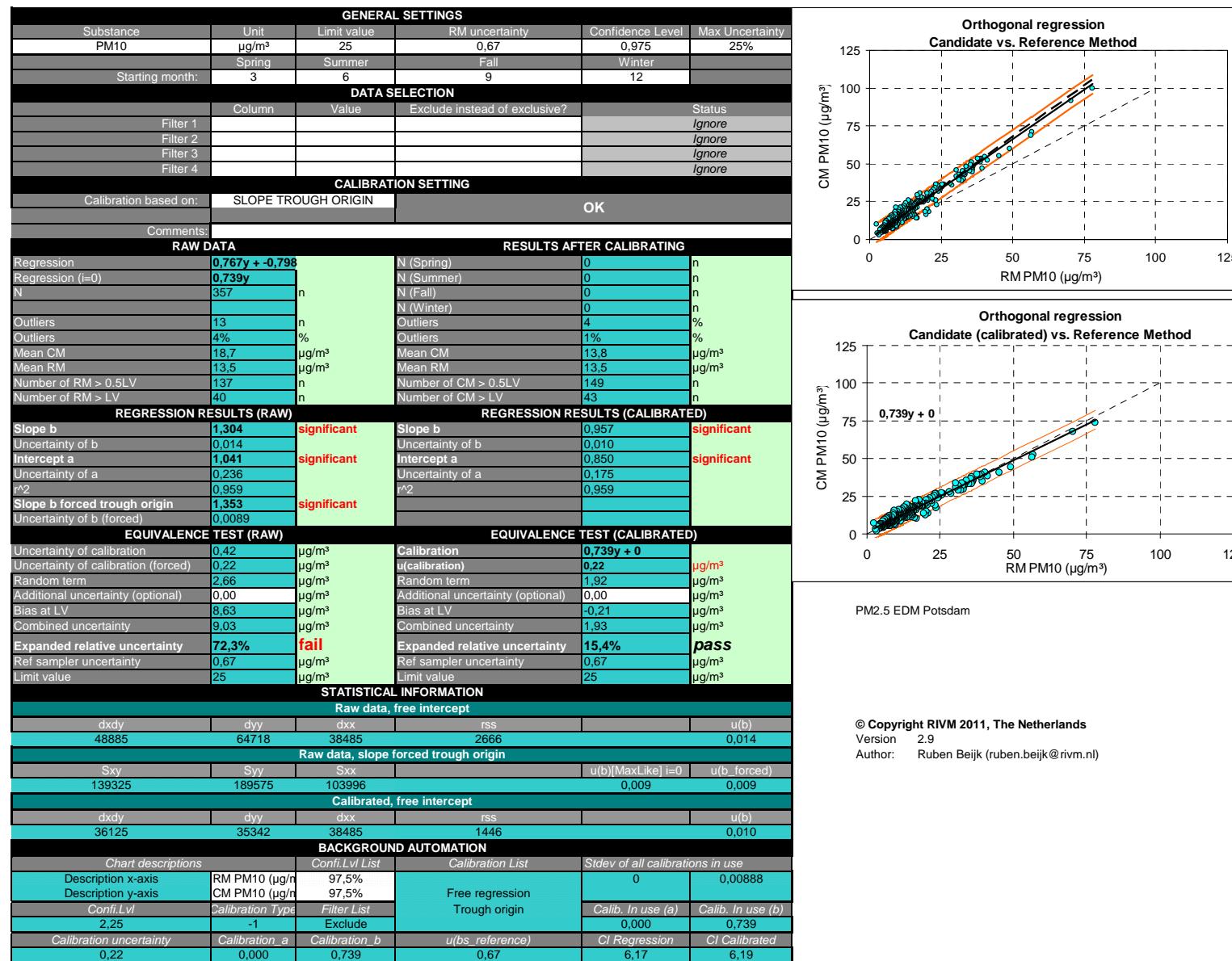


PM2.5 EDM Cottbus

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