















4























		EU European	Association of National Medicing instructors
Dielect	ric Constant Gas Thermo	ometry ((DCGT)
	Component	U(k)/k·106	
	Туре А		
	Scatter of capacitance bridge	3.5	
	Pressure repeatability	1	
	Temperature stability	0.5	
	Capacitance stability	5	
	Туре В		
	Capacitance change	1	
	Determination of effective compressibility	5.8	
	Temperature traceability to TPW	0.3	
	Pressure measurement (7 MPa)	1.9	
	Pressure head correction	0.2	
	Gas impurities	2.4	
	Impurities surface layers	1	
	Polarisability ab inicio calculations (Theory)	0.2	
	Combined standard uncertainty	9.2	
		TC- Thermometry	T ET Technical Committee















					No.						00		European A		ational Matrology	Institutes
Prelim	nina	ry	We	eig	hts	5 f (or t	the	m	lea	n v	val	ue	of	k	
(2010)																
	method	AGT	RIGT	DCGT	DBT	AGT	DBT	AGT	AGT	DBT	AGT	Noise	AGT	Î		
-	year	1988	2007	2008	2008	2009	2009	2010	2010	2010	2010	2010	2011			
	k (x 10**) k - k _{CODATA} (ppm) Δk/k (ppm)	-0,14	1,88	-2,32 30	-51,0	-0,65	13,5	-7,53	-0,58 3,11	47.5	-2,03 1,19	0,43	0,14	0.87		
	$\Delta k (1\sigma)$	2,35E-06	1,26E-05	4,14E-05	2,20E-04	3,70E-06	5,21E-05	1,03E-05	4,29E-06	5,11E-05	1,64E-06	1,79E-05	1,05E-05	\bigcirc		
	Reference	Moldover J. Res. Natl. Bur. Stand. 93, 85- 144, 1988	Schmidt PRL 98, 254504, 2007 p. 4	Gaiser Int. J. Thermop hys. 29, 18–30, 2008	Casa PRL 100, 200801, identical with Castrillo C.R. Phys. 10, 894 - 904 3rd WS	Pitre C.R. Phys. 10, 835 - 848, 2009 p. 846 3rd WS	Djerroud C.R. Phys. 10, 883 - 893, 2009 p. 891 <i>u</i> only type A I 3rd WS	Gavioso Metrologia 47, 387 - 409, 2010 p. 405	Sutton Int. J. Thermo- phys. 31 1310- 1346, 2010 4th WS	Lemar- chand Int. J. Thermo- phys. 31 1347- 1359, 2010 4th WS	Pitre Int. J. Thermo- phys. 2011	Benz Metrologia 2011	Zhang IJOT subm. 2011			
	weight	0,26	0,01		0,00	0,10		0,01	0,08	0,00	0,53	0,00				
												Them • E	C-	T ET Technica		





EMRP Call 2011 "SI Broade Implementing the new kelvin	r Scope" Novel techniques for traceable temperature dissemination						
Development of essential primary thermometry methods for: • a direct dissemination of the kelvin to the users at the extremes of temperature • measuring the differences $T-T_{90}$ and/or $T-T_{2000}$ to provide a sound foundation for the <i>MeP</i> -K.	Development of new advanced techniques for providing traceability to the kelvin by: • optimizing the realization of the ITS-90 • developing new methods and means for providing traceability to the kelvin.						
	TC-T Thermometry EURAMET Technical Committee						