

ALMERA Workshop on Measurement Results Uncertainty Estimation and Method Validation
12 to 16 November 2012 - Antalya, TURKEY

TENTATIVE WORK PROGRAMME

Monday, 12 November 2012

Time	Title	Lecturer
08:30	Registration of participants	
09:00	Welcoming	
09:15-09:30	Course introduction, objectives and content	I. Osvath
09:30-10:00	Role of IAEA in assuring the quality of the analytical results in the Member States' laboratories	I. Osvath
Session 1: Basics on measurement results uncertainty estimation		
10:00-10:30	Measurement Results Uncertainty (MRU): why it is important? Role of MRU in metrological traceability	A. Pitois
10:30-11:00	Coffee break	
11:00-12:30	Before starting MRU estimation: Analytical system stability, Review of single laboratory method validation, Quality control mechanism, Control charts, its role in MRU estimation	A. Shakhashiro
12:30-13:30	Lunch break	
13:30-15:00	Group work on control charts	A. Shakhashiro, A. Pitois, I. Osvath
15:00-15:30	Coffee break	
15:30-17:00	Statistical tools for data evaluation in analytical laboratory, Hypothesis Testing, calculation and applications of ANOVA	A. Shakhashiro

Tuesday, 13 November 2012

Time	Title	Lecturer
Session 2: Theoretical approaches to measurement results uncertainty estimation		
09:00-10:30	Top-bottom and bottom-up approaches according to GUM	A. Shakhashiro
10:30-11:00	Coffee break	
11:00-12:30	Group work on basic MRU estimation using GUM approach	A. Shakhashiro, A. Pitois, I. Osvath
12:30-13:30	Lunch break	
13:30-15:00	Kragten approach: theory and practical examples	A. Pitois, A. Shakhashiro
15:00-15:30	Coffee break	
15:30-17:00	Group work on basic MRU estimation using Kragten approach	A. Pitois, A. Shakhashiro, I. Osvath

Wednesday, 14 November 2012

Time	Title	Lecturer
Session 3: Application of measurement results uncertainty estimation to nuclear analytical techniques (1)		
09:00-10:30	MRU in gamma spectrometry	A. Pitois
10:30-11:00	Coffee break	
11:00-12:30	Group work on MRU estimation for the determination of gamma emitting RNs	A. Pitois, A. Shkhashiro, N. Vajda
12:30-13:30	Lunch break	
13:30-15:00	MRU estimation for Pu isotopes determination using alpha spectrometry	N. Vajda
15:00-15:30	Coffee break	
15:30-17:00	Group work on MRU estimation for Pu isotopes determination using alpha spectrometry	N. Vajda, A. Pitois, A. Shkhashiro

Thursday, 15 November 2012

Time	Title	Lecturer
Session 4: Application of measurement results uncertainty estimation to nuclear analytical techniques (2)		
09:00-10:30	MRU estimation for Sr-90 determination using liquid scintillation counting	N. Vajda
10:30-11:00	Coffee break	
11:00-12:30	Group work on MRU estimation for Sr-90 determination using liquid scintillation counting	N. Vajda, A. Pitois, A. Shkhashiro
12:30-13:30	Lunch break	
13:30-15:00	MRU estimation for Po-210 and Pb-210 using radiochemical procedure	N. Vajda
15:00-15:30	Coffee break	
15:30-17:00	Top-bottom approach in MRU estimation: use of control charts and method validation data	A. Shkhashiro

Friday, 16 November 2012

Time	Title	Lecturer
Session 5: Method validation and use of reference materials		
09:00-10:00	Method validation	A. Pitois
10:00-10:30	Proper use of reference materials (part I)	A. Pitois
10:30-11:00	Coffee break	
11:00-11:30	Proper use of reference materials (part II)	A. Shkhashiro
11:30-12:30	General discussions on the whole process of MRU estimation, evaluation of the training course	A. Shkhashiro, A. Pitois, N. Vajda
12:30-13:00	Round table discussion and course closure	All participants