Preliminary agenda of the 7th USA OptiLayer workshop

"Advanced thin film optical coatings"

Organized by Jennifer Kruschwitz, Alexander Tikhonravov, and Michael Trubetskov

November 16-18, 2009, Santa Clara, Biltmore Hotel

Monday, November 16

9:00	Opening remarks (Jennifer Kruschwitz)
9:10	Basic principles of thin film theory and introduction to OptiLayer software (Alexander Tikhonravov)
9:55	Modern principles of software interface implemented in OptiLayer software (Michael Trubetskov)
10:40	**Coffee break**
11:00	Fresnel equations, Brewster's angle, TIR, incoherent multiple reflections (Jennifer Kruschwitz)
11:45	Advanced topics in the analysis of multilayers. Using OptiLayer analysis options for solar cells and other applications (Alexander Tikhonravov)
12:30	**Lunch**
13:30	Graphical techniques, vector diagrams, simple AR and HR, metals (Jennifer Kruschwitz)
14:15	Overview of modern design techniques (Alexander Tikhonravov)
15:00	**Coffee break**
15:20	High reflectors, overlapping stacks, metal coatings, tilted coatings, polarizers, phase effects (Jennifer Kruschwitz)
16:05	Practical aspects of designing and choice of design strategy for general application coatings (Alexander Tikhonravov)

18:00 Workshop reception (dinner will be provided)

Tuesday, November 17

9:00 What's new in OptiLayer software (Michael Trubetskov)

9:45 Design of narrow band pass filters and optical coatings for special applications in telecommunications, medicine, etc. (Alexander Tikhonravov)

10:30 Coffee break

10:50 Color analysis and design of coatings for color applications (Michael Trubetskov)

11:35 Design of multilayers for ultra fast applications (coatings with phase, group delay and group delay dispersion specifications) (Alexander Tikhonravov)

12:20 Lunch

13:30 Presentation capabilities of OptiLayer software (Michael Trubetskov)

14:15 Pre-production error analysis and choosing designs with the best probability of a high manufacturing yield (Alexander Tikhonravov)

15:00 Coffee break

15:20 Overview of monitoring techniques for optical coating production (Alexander Tikhonravov)

16:05 Recent advances in optical monitoring (Alexander Tikhonravov)

Wednesday, November 18

9:00 Computational manufacturing as a tool for raising production yields (Alexander Tikhonravov)

9:45 Import of data to the programs of OptiLayer software family (Michael Trubetskov)

10:30 Coffee break

10:50 Optical characterization of thin films – basic concepts (Alexander Tikhonravov)

11:35 Methodology of thin film characterization based on spectral photometric data (Alexander Tikhonravov)

12:20 Lunch

13:30 Thin film characterization using spectral ellipsometric data (Alexander Tikhonravov)

14:15 Reverse engineering of optical coatings with OptiRE (Alexander Tikhonravov)

15:00 Coffee break

15:20 Integrating OptiLayer thin film software in the production environment (Michael Trubetskov)

16:05 Round table discussions and Q&A session

16:50 Closing remarks (Jennifer Kruschwitz)