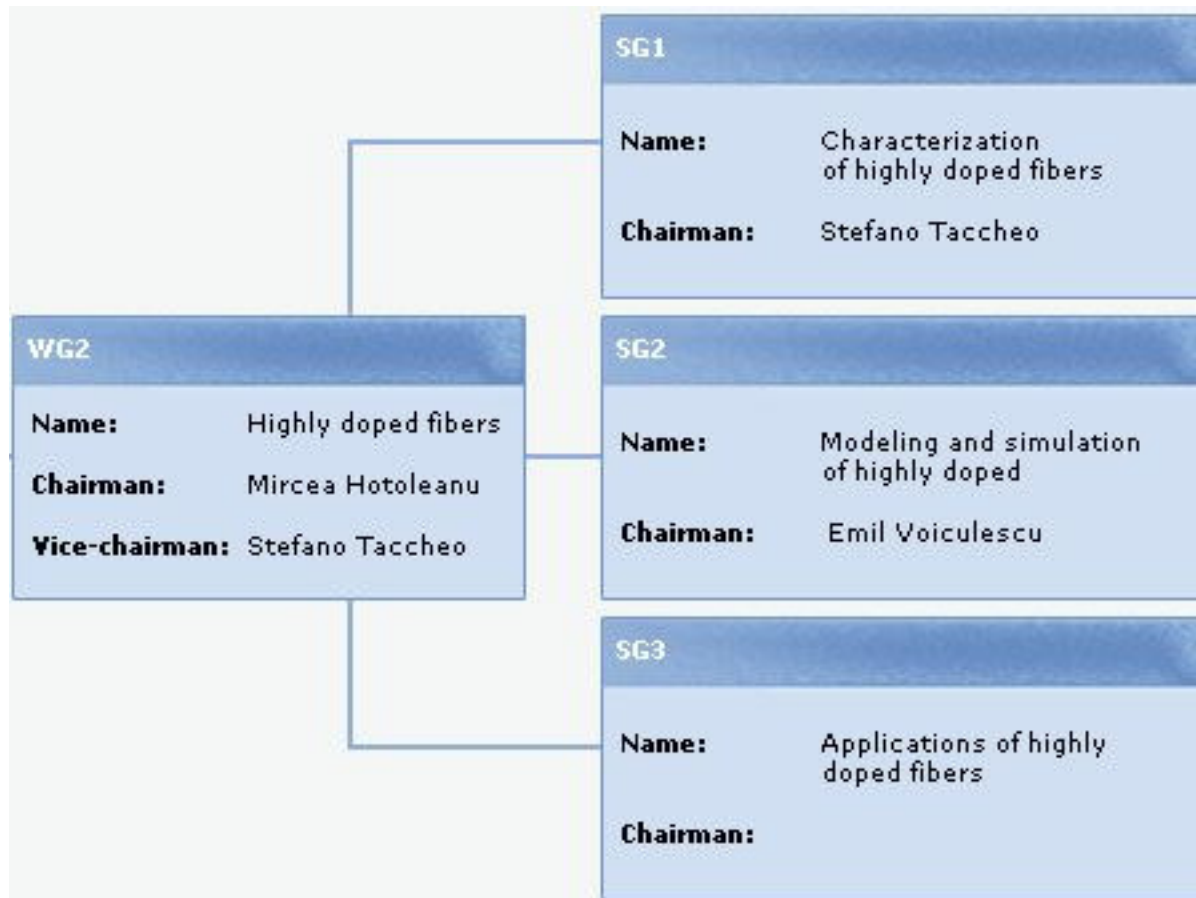


Report of WG2 activity Characterization and applications of rare-earth highly-doped fibres

Emil Voiculescu
Technical University of Cluj, RO

Structure



Technical Reports

- On Feb 1st a technical report dealing with the importance of the type of doping - radial or flat doping - on the power in the fundamental mode has been reported.

Paper authors: Mircea Hotoleanu

Rapporteur: Emil Voiculescu

This paper has been also delivered at Photonics West, CA a week ago (Jan 2007).

- Next a study of the effects of index-profile grading and of the doping profile modulation upon LMA fibers, in terms in turning them from multimode to single mode operation has been reported.

Author and rapporteur: Emil Voiculescu.

This material can be made into a paper at the next CLEO Conference, if the appropriate cooperation will be available.

For practical results,

- Liekki Oy agreed (through the group chairman Mircea Hotoleanu) in hosting Emil Voiculescu for a STSM in order to practically determine the facts reported based on numerical simulation.

Presentation / Other activities

- Monica Ivan, principal developer of the COST 299 website gave everybody an update (Jan 31st) of the progress made. The website is well operating and continuously improving. Any further change will be acknowledged.
- Round-robin concerning with photodarkening, proposer Dr. Stefano Taccheo, Politecnica di Milano, postponed. Or re-directed to WG3 (possibly), or abandoned.

It has been planned in Nice (Hotoleanu, Taccheo, Voiculescu), confirmed at Photonics West, San Jose, CA, Jan 2007, and then just nothing followed. However the topic remains of interest for our group.

SG Restructuring

Our group envisages some restructuring, and focusing on the topics that can be cross-checked with the industry, plant/laboratory, meaning for the moment just Liekki Oy, Finland.

We would welcome intercomparison measurements in co-operation with Universite de Genève (Mathieu Lègre having accepted), the National Institute of Telecommunications, Warsaw, Poland (Dr. Borzycki accepted), and we are open to new participants in the frame of LMA fibers simulation and testing. We welcome new participants bringing with them new appropriate topics. We could extend LMA fibers research by same mechanical tests -tensile forces, bending - new topic proposed by Dr.Borzycki.

Status of the WG2

We managed to gather the following interested people around the present main task, coming from Liekki:

- Liekki (Mircea Hotoleanu)
- TUCN (Emil Voiculescu)
- Optoel (Monica Ivan)
- Universite de Geneve (Matthieu Legre)
- National Institute of Telecommunications Warsaw (Krzysztof Borzycki)

The following valuable colleagues would be welcome if they could enroll, however cooperation did not start / work yet: Yves Hernandez, J Olshewsky, Francis Berghmans (?), Stefano Taccheo.

WG2 Status

As SG2 started its first fruitful simulations and they might be continued at Liekki, FI, we seem to be "on track". The present team could operate as a study group - LMA fibers (non PCF) could be its domain. We ask about this the WG chairman, and he gave his okay, also the COST chairman separately, by email. We were not able to contact Dr. Taccheo.

As long as the other WGs have 5 or 6 operational/successful SGs, a re-distribution of research forces would be opportune and more fruitfully.

To reconfigure the WG2 in any other appropriate way the WG chairman agrees with the MC decision.

This is supposed to respond to the COST chairman requirement: Study-Groups must be discussed, and a proposition must be presented during the reports in the closing plenary session.