Action MP1401

Advanced fibre laser and coherent source as tools for society, manufacturing and lifescience

COST MP1401 1st ANNUAL CONFERENCE

Technical Program

12 April

1pm - 5.30 pm Introduction & Working Group 1

13.00 Registration

13.15 Hrvoje Gebavi and Milan Ivanda, Institut Ruder Boškovic, Zagreb, Croatia: Welcome

13.25 Stefano Taccheo, Swansea University, UK: Introduction to COST Action 1401

Working Group 1

13.35 Kay Schuster, IPHT Jena: Introduction to WG1

13.45 Vladimir Shiryaev, IHPS, Russia, : "Preparation and investigation of high purity Pr(3+)-doped chalcogenide glasses for active fiber optics" [WG1.1]

14.00 Dominik Dorosz, Bialystok University of Technolog, Poland, "VIS-NIR luminescence in RE co-doped antimony- germanate glasses and glass - ceramics"[WG1.2]

14.15 Jordi Sancho Parramo, Institut Ruder Boškovic, Croatia: "Plasmonic nano-composites for optical coatings" [WG1.3]

14.30 Coffee Break

15.00 Florian Linder, IPHT Jena, Germany:" New developments of MCVD technology for the preparation of efficient laser fibers" [WG1.4]

15.15 Davor Ristić, Institut Ruder Boškovic, Croatia, "The enhancement of optical properties of spherical microresonators for lasing and other applications" [WG1.5]

15.30 Elena Romanova, Saratov State University, Russia, "Time-resolved kinetics of charge carriers trapping in chalcogenide glass irradiated by high-intensity laser pulses" [WG1.6]

15.45 Beata Derkowska-Zielińska, Nicholas Copernicus University, Poland: "Optical properties of rare-earth doped oxyfluoride glasses" [WG1.7]

16.00 Maurizio Ferrari, CNR-IFN, Italy, "Transparent glass ceramics for photonics" [WG1.8]

16.15 Kay Schuster, IPHT Jena, "The REPUSIL process and the capability of fluorine doping for the adjustment of optical properties in silica materials" [WG1.9]

16.30 Open Discussion

17.30 End of Work

13 April

9 am - 2.50 pm: Working Group 2

09.00 Marian Marciniak, National Institute of Telecommunications, Poland: Introduction to WG2 and presentation of new groups

09.10 Eric Leitgeb, TU Graz, Austria: "Lasers for Future Applications in Deep Space Missions" [WG2.1]

09.30 Marcin Kochanowicz, Bialystok University of Technolog ,Poland, "RE co-doped germanate optical fibers for source application" [WG2.2]

09.50 Manuel López-Amo, University of Navarra, Spain :"Ultralong fiber lasers for optical fiber sensors interrogation" [WG2.3]

10.10 Matthias Jaeger, IPHT Jena, Germany, "Tunable Tm-doped fiber MOPA" [WG2.4]

10.30 Coffee Break

11.00 Philippe Roy, Xlim UMR CNRS-Université de Limoges, "LMA active fibre for high power lasers: impact of aperiodicity on modal stability and advanced designs to improve thermal resilience" [WG2.5]

11.20 Slawomir Sujecki, University of Nottingham" Progress on Round Robin on MIR active fibre modelling" [WG2.6]

11.40 *Grzegorz Soboń, Wroclaw University of Technology, Poland, "Amplification of pulsed optical combs from fiber lasers for supercontinuum generation in optical cristal fibres" [WG2.7]*

12.00 Open Discussion

12.50 LUNCH

1.50 pm - 4.30 pm: Working Group 3

13.50 Andres Lasagni: opening WG3

13.55 Miklos Veres MTA, Hungary: "Raman spectroscopy and surface enhanced Raman scattering, with a focus on biomedical applications" [WG3.1]

14.15 Andres Lasagni, Fraunhofer IWS, Germany: "Direct Laser Interference Patterning, a new tool for large area micro and sub-micrometer structuring" [WG3.2]

14.35 Jonathan Griffiths, University of Lincoln, UK: "Suitability of Fibre Laser Sources for Applications Involving Laser-Induced Breakdown" [WG3.3]

14:50 Vedran Đerek, Ruder Boskovich Insitute, Croatia: "NIR laser light sensors based on nanosilicon/organic semiconductor junctions for telecom applications" [WG3.4]

15.05 Ivan Petryshynets, Slovak Academy of Sciences, Slovakia, "Modification of domain structures at Fe-Si alloy surface via the laser scribing technology" [WG3.5]

15.20 Klobčar, Damjan, University Ljubljana, Slovenia, "Case studies of laser welding and weldability". [WG3.6]

15.35 OPEN DISCUSSION

16.30 END OF WORK

EVENING

CITY TOUR

&

SOCIAL DINNER

14 April

9 am - 12.45 pm: ECI and Women Researcher session

09.00 Anna Lukowiak and Silvia Soria – Introduction to the session: ECI and Women in COST Action MP1401; STSM presentation & current status

09.20 Georgiana Diana Chioibasu, INFLPR-Bucharest, Romania, "Application of response surface methodology for optimization of fiber laser welding of stainless steel 316L" [EW.01]

09.40 Vladka Lešer, Faculty of Health Sciences Novo mesto, Slovenia, "Raman spectroscopy applications in biological testing" [EW.02]

10.00 Emir Karamehmedovic, International University of Sarajevo, Bosnia and Herzegovina, "Removal of the time-invariant component from an optical signal utilizing nonlinear element in a ring laser" [EW.03]

10.20 Coffee Break

10.50 Filip Todorov, UFE, CAS, Czech Republic, "60W thulium fiber laser for industrial and medical applications" [EW.04]

11.05 Rosana Perez-Herrera, Universidad Publica de Navarra, Spain, "Single-mode Er-doped lasers" [EW.05]

11.25 Jean-François Lupi, Université Nice Sophia Antipolis, France, "Photodarkening in Tm-doped optical fibers" [EW.06]

11.45 Ella Karaksina, Institute of Chemistry of High-Purity Substances RAS, Russia, "Development of doped chalcogenide and tellurite glasses for fiber optics of near and mid-IR range" [EW.07]

12.05 OPEN DISCUSSION

12.45 LUNCH

14 April: 1.45 pm - 5.30 pm: Industrial Session & Final discussion

13.45 Matej Komanec: Introduction to the session

13.55 Matej Komanec: Presentation of Laser online survey [SI.01]

14.05 Stefano Taccheo, "Round Robin on Laser Measurements" [SI.02]

14.15 TBC DG Photonics, Brussels, "Opportunities in H2020" [SI.03]

14.45 P.P. Millan, Fyla, Spain, "Fiber lasers. Focused on customer R+D needs and perspectives" [SI.04]

15.05 Jesús Palací, LuzWavelabs, SPAIN " Fiber Lasers for Thz Waves Generation" [SI.05]

15.25 David Moore, Viska, Ireland, Challenges in high-throughput and high-accuracy micro-machining with fibre lasers" [SI.06]

15.45 Dermot Brabazon, DC University, Ireland, "Laser processing of metallic surfaces for exquisitely controlled texture and metallic joint bond strength" [SI.07]

15.55 Round Table and Open Discussion

16.30 Final Discussion COST MP1401

17.30 End of Conference

15 April: 9 am - 12.30 pm:

MC Meeting