

PHOTONICA 2017

VI International School and Conference on Photonics

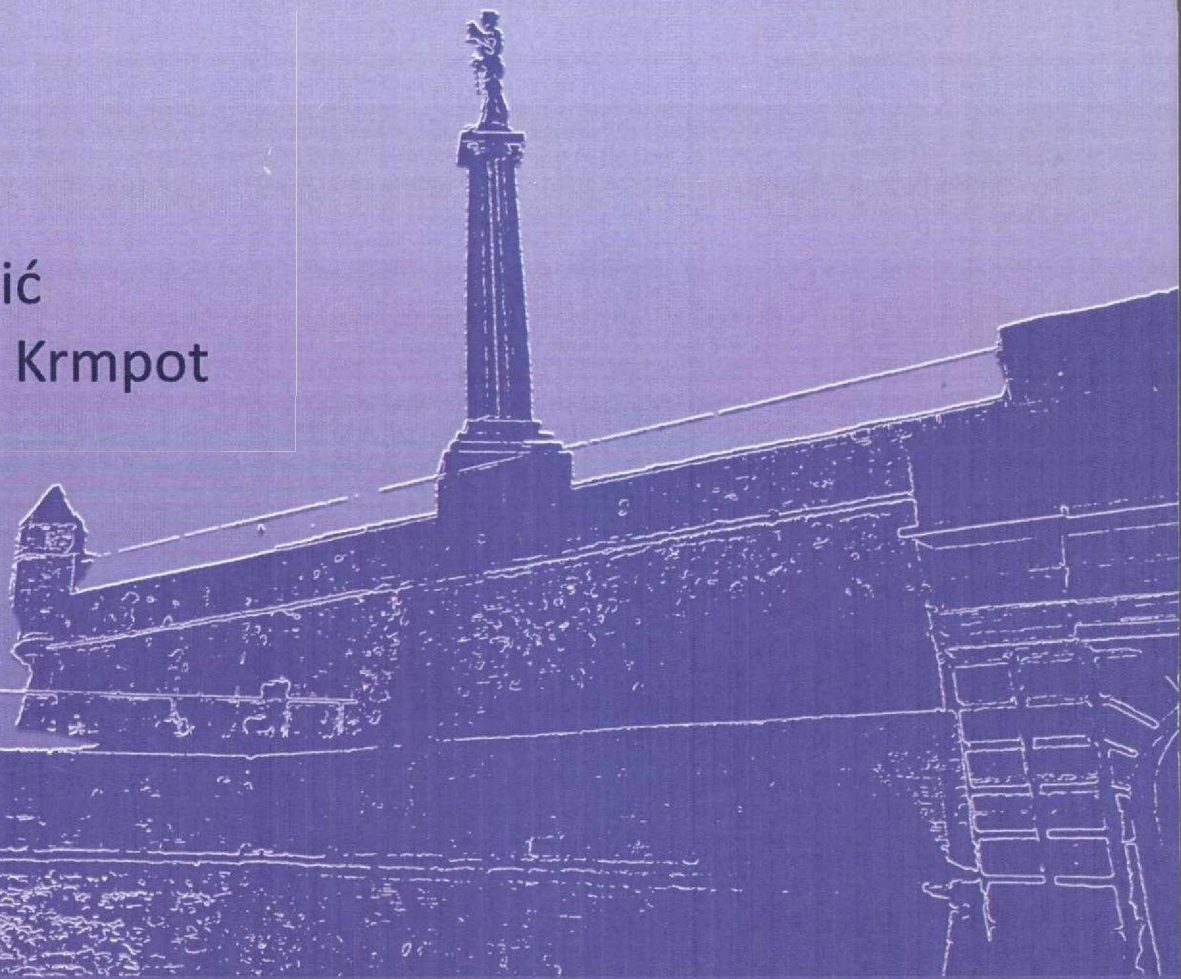
with COST MP1402-HERALD and MP1406-MultiscaleSolar
and H2020-MSCA-RISE-2015 CARDIALLY workshop

Book of Abstracts

Editors

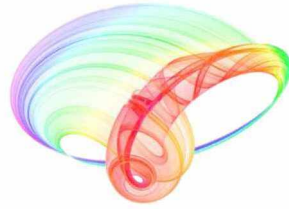
Marina Lekić

Aleksandar Krmpot



Belgrade, Serbia,
August 28 – September 1st, 2017

Book of abstracts



PHOTONICA2017

The Sixth International School and Conference on Photonics

& COST actions: MP1406 and MP1402



&H2020-MSCA-RISE-2015 CARDIALLY workshop



28 August – 1 September 2017

Belgrade, Serbia

Editors

Marina Lekić and Aleksandar Krmpot

Institute of Physics Belgrade, Serbia

Belgrade, 2017

ABSTRACTS OF TUTORIAL, KEYNOTE, INVITED LECTURES,
PROGRESS REPORTS AND CONTRIBUTED PAPERS

of

The Sixth International School and Conference on Photonics
PHOTONICA2017

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Time resolved luminescence spectra of greater celandine (*Chelidonium majus* L.)

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The greater celandine (*Chelidonium majus* L.) is a medicinal plant of the poppy family. It grows mainly in Europe and Asia. This herb is a rich source of biologically active substances used for the treatment of various diseases. It has been demonstrated that both alkaloid extracts and purified alkaloids from that plant exhibit distinct anti-inflammatory, spasmolytic, anti-microbial, and anti-tumour activities [1–4]. The most important alkaloid components of this plant are protopine, chelidonine, coptisine, sanguinarine, allocryptopine, chelerythrine. Identification and quantitative analysis of these individual alkaloids is important in developing and utilizing resources of greater celandine. Moreover, this analysis provides better insight into the mechanism of the biological action of specific alkaloids.

In this study we analyze optical characteristics of greater celandine solution extracts. The samples of *Chelidonium majus* L. were collected from courtyard of our institute. Solutions were extracted with ethanol from plant samples and their time resolved optical characteristics were analyzed using our TR-LIF (Time resolved Laser induced Fluorescence) spectroscopy experimental setup. The setup consist of tunable OPO (Optical Parametric Oscillator) laser and streak camera. It was used previously for analysis of solution samples of biological interest and it is described in more detail in our earlier publications [5-7].

Results of our analysis reveal two distinct optical emission bands with different excitation characteristics. Time resolved analysis of luminescent spectra show that lifetimes of both bands are in nanosecond domain.

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- [7] M. S. Rabasovic, D. Sevic, M. Terzic, and B. P. Marinkovic, *Nucl. Inst. Meth. B.*279, 16 (2012).

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& H2020-MSCA-RISE-2015 CARDIALLY workshop, 28 August - 1 September 2017

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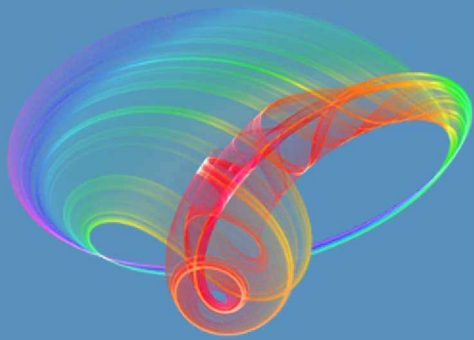
1. H2020-MSCA-RISE-2015 CARDIALLY workshop (2017 ; Beograd)

a) Оптика - Апстракти b) Оптички материјали - Апстракти c)

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Апстракти e) Телекомуникације - Апстракти

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PHOTONICA 2017

VI International School and Conference on Photonics
28 August - 1 September 2017, Belgrade, Serbia

Topics

- o Quantum optics and ultracold systems
- o Nonlinear Optics
- o Optical materials
- o Biophotonics
- o Devices and components
- o Optical communications
- o Laser spectroscopy and metrology
- o Ultrafast optical phenomena
- o Laser - material interaction
- o Optical metamaterials and plasmonics
- o Other topics in photonics

with 3 satellite events



Selected peer reviewed manuscripts will be published in Optical and Quantum Electronics

Option to apply for oral presentation (contributed talk)

Award for best presented poster

Tutorial speakers

Antoine Weis, CH
Boris Chichkov, DE
Stojan Radić, US
Wieslaw Krolikowski, AU
Zeev Zalevsky, IL

Keynote speakers

Jerker Widengren, SE
Kurt Hingerl, AT
Liam P. Barry, IE
Marko Kralj, HR
Milivoj Belić, QA
Sadhan K. Adhikari, BR
Wolfram Pernice, DE

Invited speakers

Andrea Fratalocchi, SA
Axel Pelster, DE
Christian Teichert, AT
Christoph Affolderbach, CH
Dries van Oosten, NL
Fabio Baronio, IT
Frank Setzpfandt, DE
Igor Jakovcevski, DE
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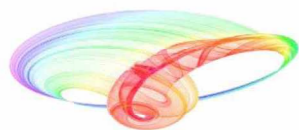
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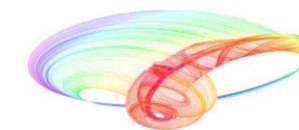
Organizers Institute of Physics Belgrade, Serbian Academy of Sciences and Arts and Optical Society of Serbia

Sponsors





PHOTONICA 2017 timetable (Main hall)



| Monday, August 28 th | Tuesday, August 29 th | Wednesday, August 30 th | Thursday, August 31 st | Friday, September 1 st |
|-----------------------------------|---|---|---|---|
| 08.30-09.00 Opening | | | | |
| Chair: B. Jelenković | Chair: K. Homewood | Chair: M. Stepić | Chair: F. Cataliotti | Chair: M. Božić |
| 09.00-09.35 Krolikowski | 09.00-09.35 Chichkov | 09.00-09.35 Zalevsky | 09.00-09.35 Weis | 09.00 – 09.45 Pernice |
| 09.35-09.45 Discussion break | 09.35-09.45 Discussion break | 09.35-09.45 Discussion break | 09.35-09.45 Discussion break | |
| 09.45-10.20 Krolikowski | 09.45-10.20 Chichkov | 09.45-10.20 Zalevsky | 09.45-10.20 Weis | 09.45 – 10.30 Belić |
| 10.20-10.40 Coffee break | 10.20-10.40 Coffee break | 10.20-10.40 Coffee break | 10.20-10.40 Coffee break | 10.30 – 10.50 Coffee break |
| Chair: B. Gaković | Chair: P. Andjus | Chair: G. Isić | Chair: A. Balaž | Chair: D. Gvozdić |
| 10.40-11.25 Hingerl | 10.40-11.25 Widengren | 10.40-11.25 Kralj | 10.40-11.25 Adhikari | 10.50 – 11.35 Barry |
| 11.25-11.35 Discussion break | 11.25-11.35 Discussion break | 11.25-11.35 Discussion break | 11.25-11.35 Discussion break | 11.35 - 11.45 Discussion break |
| 11.35-12.05 Pasiskevicius | 11.35-12.05 Jakovcevski | 11.35-12.05 Artemyev | 11.35-12.05 Pelster | 11.45 - 12.15 Leisher |
| 12.05-12.35 Fratolocchi | 12.05-12.35 Štrancar | 12.05-12.35 Teichert | 12.05-12.35 Salasnich | 12.15 - 12.45 Gerhardt |
| 12.35-14.30 LUNCH BREAK | 12.35-14.30 LUNCH BREAK | 12.35-14.30 LUNCH BREAK | 12.35-14.30 LUNCH BREAK | 12.45 - 14.30 LUNCH BREAK |
| Chair: Lj. Hadžievski | Chair: L. Mančić | Chair: P. Mihailović | Chair: Ch. Andreeva | Chair: S. Petrović |
| 14.30-15.05 Radić | 14.30-15.00 Luning | 14.30-15.00 Rakich | 14.30-15.00 Loew | 14.30-15.00 van Oosten |
| 15.05-15.10 Discussion break | 15.00-15.30 Dučić | 15.00-15.30 Baronio | 15.00-15.30 Affolderbach | 15.00-15.30 Zamfirescu |
| 15.10-15.45 Radić | 15.30-15.45 Antić | 15.30-16.00 Setzpfandt | 15.30-15.45 Akram | 15.30-15.45 Resan |
| 15.45-16.00 Totović | 15.45-16.00 Tserevelakis | | 15.45-16.00 Radonjić | 15.45-16.00 Kamalian |
| 16.00-16.20 Coffee break | 16.00-16.20 Coffee break | | 16.00-16.20 Coffee break | 16.00-16.20 Coffee break |
| Chair: M. Trtica | Chair: I. Vasić | | | Chair: M. Živanov |
| 16.20-16.50 Slavik | 16.20-16.50 Borzsonyi (LaserLab Europe) | | 16.30 – 18.30 Posters (topics 5, 6, 7, 8 Club SAS; topics 9, 10 Gallery of Science and Technology) | 16.20-16.50 Amin-Akhlaghi (COST MP1406) |
| 16.50-17.10 Tarasov | 16.50-17.10 Krešić | | | 16.50-17.10 Stupar |
| 17.10-17.30 Chernysheva | 17.10-17.30 Mladenović | | | 17.10-17.30 Bajić |
| 17.30-17.50 Popović | 17.30-17.50 Ralević | | | 17.30-17.50 Obradov |
| 17.50-18.05 Nedelchev | 17.50-18.05 Marinova | | | 17.50 - 18.05 Spasenović |
| 18.05-18.20 Geiss | | 18.00 – 20.30 Excursion (boat trip and sightseeing from Belgrade rivers) | | 18.05-18.20 Trajković |
| 18.30 -20.00 Cocktail (Club SASA) | 18.15 – 20.00 Posters (topics 1, 2, 11 Club SASA; topics 3, 4 Gallery of Science and Technology) | | | 18.20 Closing |
| | | | 20.00 ---- Conference dinner (Aeroklub) | |

Tutorial lecture 2x35 min

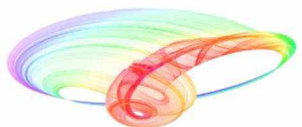
Keynote lecture 45 min

Invited lecture 30 min

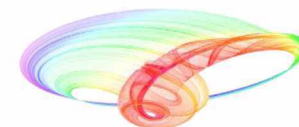
Special invited lecture 30 min

Progress report 20 min

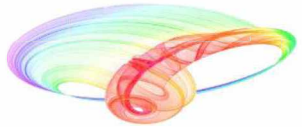
Contributed talk -CT 15 min



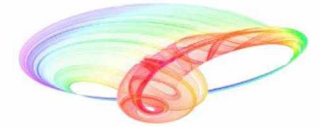
PHOTONICA 2017 timetable (Hall 102)



| Monday, August 28 th | Tuesday, August 29 th | Wednesday, August 30 th | Thursday, August 31 st | Friday, September 1 st | | |
|--------------------------------------|--|--|---|-----------------------------------|---------------------------------|----------------------------------|
| | <p style="text-align: center;">08.00-17.45 COST MP1402-HERALD</p> | <p style="text-align: center;">08.00-17.45 COST MP1402-HERALD</p> | | | | |
| | | | | | 12.35-14.30 LUNCH BREAK | 12.45 - 14.30 LUNCH BREAK |
| | | | | | Chair: N. Stojanović | Chair: J. Radovanović |
| | | | | | 14.30-14.45 Kostritskii | 14.30-14.45 Moreno |
| | | | | | 14.45-15.00 Čubrović | 14.45-15.00 Grujić |
| | | | | | 15.00-15.15 Slavchev | 15.00-15.15 Khachatryan |
| | | | | | 15.15-15.30 Apostolova | 15.15-15.30 Demić |
| | | | | | 15.30-15.45 Călin | 15.30-15.45 Pan |
| | | | | | 15.45-16.00 Ehrlich | 15.45-16.00 Cojocari |
| | | | | | 16.00-16.20 Coffee break | 16.00-16.20 Coffee break |
| | | | | Chair: B. Resan | | |
| | | | <p><i>16.30 – 18.30 Posters (topics 5, 6, 7, 8 Club SASA; topics 9, 10 Gallery of Science and Technology)</i></p> | 16.20-16.35 Kovačević | | |
| | | | | 16.35-16.50 Bliznakova | | |
| | | | | 16.50-17.05 Pazzagli | | |
| | | | | 17.05-17.20 Onal | | |
| | | | | 17.20-17.35 Petrović | | |
| | | | | 17.35-17.50 Rabasović | | |
| | | | | 17.50 -18.05 Mokrousova | | |
| 18.30 -20.00 Cocktail (Club SASA) | <p><i>18.15 – 20.00 Posters (topics 1, 2, 11 Club SASA; topics 3, 4 Gallery of Science and Technology)</i></p> | 18.00 – 20.30 Excursion (boat trip and sightseeing from Belgrade rivers) | | | | |
| | | | 20.00 ---- Conference dinner (Aeroklub) | | | |



PHOTONICA 2017 timetable (Hall 103)



| Monday, August 28 th | Tuesday, August 29 th | Wednesday, August 30 th | Thursday, August 31 st | Friday, September 1 st |
|--|---|---|---|-----------------------------------|
| | | | 10.00-16.00 COST MP1406- MultiscaleSolar | |
| | 15.00-19.00 CARDIALLY workshop | | | |
| | 18.15 – 20.00 Posters | 18.00 – 20.30 Excursion (boat trip and sightseeing from Belgrade rivers) | 16.30 – 18.30 Posters | |
| 18.30 -20.00 Cocktail (Club SASA) | | | | |
| | | | 20.00 ---- Conference dinner (Aeroklub) | |