

European Structural Integrity Society (ESIS)
Karpenko Physico-Mechanical Institute
of the National Academy of Sciences of Ukraine
Ukrainian Society on Fracture Mechanics
Lviv Polytechnic National University

6th International Conference
“Fracture Mechanics of Materials
and Structural Integrity”



PROGRAMME

June 3–6, 2019



Lviv, Ukraine

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**A. Balitskii, D. Dosyn, L. Frankevych, B. Kindratskyi,
Ya. Khaburskyi, T. Lenkovskyi, V. Poznyakov,
I. Shtoyko, B. Stasyuk, V. Uchanin, O. Zynyuk**

MONDAY, JUNE 3

18:00	Registration and Welcome Reception Location: Premier Hotel Dnister; (6 Mateika Str., Lviv) Dnister restaurant
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TUESDAY, JUNE 4

8:30–9:00	Registration Location: Lviv Polytechnic National University (12 Bandera Str.), Main Building
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9:00–9:40	Opening Ceremony Location: Lviv Polytechnic National University Main Building, Assembly Hall
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9:40–10:40	Session: Fracture and Strength of Materials Location: Lviv Polytechnic National University Main Building, Assembly Hall
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9:40 **Development of investigations on fracture mechanics of materials and structural integrity: achievements and perspectives**

Volodymyr Panasyuk

Karpenko Physico-Mechanical Institute of NASU, Ukraine

10:00 **The mechanism for counteracting cracking of high-manganese steels with austenitic structure**

Leszek A. Dobrzanski

Medical and Dental Engineering Centre for Research, Design and Production, Science Centre ASKLEPIOS, Poland

10:20 **Fracture mechanics study of cementitious materials reinforced with carbon nanotubes and nanofibers**

Emmanuel E. Gdoutos¹, Maria S. Konsta-Gdoutos²

¹*Academy of Athens, Athens, Greece*

²*University of Texas at Arlington, Arlington, Texas, USA*

17:40 **Strength of welded joints made of high-strength steel with different welding parameters**

Ihor Dzioba, Tadeusz Pała

Kielce University of Technology, Poland

18:00 **Short crack problem in delayed fracture mechanics**

Yuri Lapusta¹, Olexandr Andreikiv², Nataliya Yadzhak²

¹ *French National Centre for Scientific Research,
University of Clermont Auvergne, France*

² *Ivan Franko National University of Lviv, Ukraine*

19:00

Excursion

17:40 **The methodology of evaluation and monitoring of the fatigue fracture at macrocrack initiation stage**

Roman Chepil, Olena Stankevych, Orest Ostash,
Bohdan Klym

Karpenko Physico-Mechanical Institute of NASU, Ukraine

18:00 **Determination of components of transient resistance of underground pipeline**

Roman Dzhala¹, Vasył' Dzhala¹, Roman Savula²,
Oleh Senyuk¹, Bohdan Verbenets'¹

¹ *Karpenko Physico-Mechanical Institute of NASU, Ukraine*

² *Public Joint-Stock Company "UKRTRANSGAZ" –
Affiliate "Lvivtransgaz", Ukraine*

19:00

Conference Dinner

- 12:00 **Consideration of the effect of biaxial loading and short cracks on RPV steel fracture toughness**
V. G. Sidyachenko, A. A. Kotliarenko
G.S. Pisarenko Institute for Problems of Strength of NASU, Ukraine
- 12:20 **Study on laser cladding Fe-based wear resistant coating on inner wall**
Jianhua Yao¹, Zhongyao Cai¹, Zhijun Chen¹,
Volodymyr Kovalenko^{1,2}
¹*Institute of Laser Advanced Manufacturing, Zhejiang University of Technology, China*
²*Laser Technology Research Institute, National Technical University of Ukraine*
- 12:40 **Influence of pipeline steel texture on macro- and micromechanisms of its impact fracture**
Yevstakhiy Kryzhanivskyy¹,
Liubomyr Poberezhny¹, Pavlo Maruschak²,
Mykhailo Lyakh¹, Volodymyr Slobodyan¹,
Vasyl Zapukhliak¹
¹*Ivano-Frankivsk National Technical University of Oil and Gas, Ukraine*
²*Ternopil Ivan Pul'uj National Technical University, Ukraine*
- 13:00 **Role of in-service conditions in operational degradation of mechanical properties of portal cranes steel**
Oleksiy Nemchuk¹, Myroslava Hredil²,
Vitaliy Pustovoy¹, Oleksandr Nesterov¹
¹*Odessa National Maritime University, Ukraine*
²*Karpenko Physico-Mechanical Institute of NASU, Ukraine*

13:00–14:20

Lunch

Location: Premier Hotel Dnister;
(6 Mateika Str., Lviv) Dnister restaurant

