

# Kharkiv National Automobile and Highway University



The department of technology of metals and engineering physical metallurgy named after A. Petrichenko

The head of the department of metal technology and engineering physical metallurgy, candidate of technical science, professor V. Moshchenok

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## Outstanding scientific:

Scientific - research set „ВІКВАНТ ХНАДУ”:



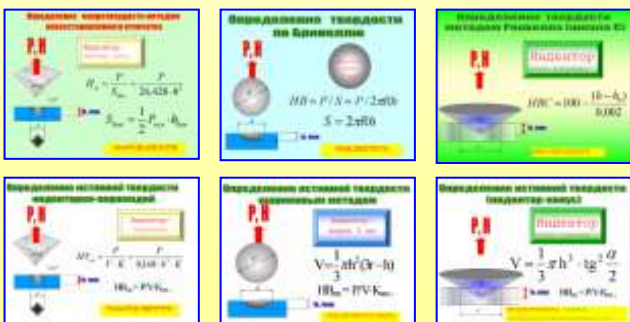
Metallographic investigations:



Development and applying titanium nitride coatings:



New methods of hardness determination:



## Perspective works on methods of teaching:

The new generation textbook  
“Technology of structural materials and engineering physical metallurgy”



The new generation text-book has been created by the authors from:

- + Dniprodzerzhinsky State Technical University;
- + Donbaska State Machine-building Academy;
- + Kerchensky Nautical Technological Institute;
- + Krivorizhsky Technical University;
- + Lutsky State Technical University;
- + Ternopilsky State Technical University;
- + Ukrainian State Railway Transport Academy;
- + Kharkiv National Automobile and Highway University;

The leader of the new generation text-book project is the head of the department of metal technology and engineering physical metallurgy of KhNAHU, candidate of technical science, professor V. Moshchenok

The department of metal technology and engineering Physical metallurgy of KhNAHU annually organizes:

- + All-Ukrainian contest of student works on technology of structural materials and engineering physical metallurgy
- + All-Ukrainian student Olympiad on technology of structural materials and engineering physical metallurgy

### The main scientific fields

- Forecasting operational properties
- Development of new generation hardness testers
- Developing new methods of hardness determination
- Nano- micro- macro- indentation of different materials
- Quantitive metallography
- Applying coatings to the parts

### The partners of the department are::

- + - State enterprise “Malyshev Plant”;
- + - Ukrainian Physical and Technical Institute of National Science Academy of Ukraine;
- + - Northern –Texas University , USA;
- + - Autogenous equipment plant “Donmet”;
- + - Kharkiv machine-building plant “Miner’s light”;
- + - Research and production enterprise “MIKROTEX”;
- + - PTB, (Germany);
- + - Abplanalp, (Belgium);
- + - INSIZE, (China);
- + - National metrology Institute, (Germany);
- + - Moscow State Technical University (MAPI), (Russia);
- + - Belgorodsky State Technical University, (Russia).

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