

Special Issue

Technologies of Coatings and Surface Hardening for Tool Industry

Message from the Guest Editor

Dear colleagues, The aim of this Special Issue is to provide a review of the current state of the research and developments in the field of coatings and surface hardening technologies for cutting and die tools. Some of the topics of particular interest to the Special Issue are as follows:

- Development of the self-adapting in the process of contact interaction with the machining coatings through the formation of solid lubricants based on oxides and other compounds;
- Development of coatings and processes of the surface hardening of the tool intended for formation of hard-to-process materials such as high-hardened steels, alloys;
- Application of diverse concentrated flows of energy for implementation of new processes of coating and surface hardening of the tool;
- Original technology equipment and setups for coatings and surface hardening of the tool;
- Study of the influences of the physical-mechanical and crystal-chemical properties of the surface layer transformed by coatings and surface hardening on the stress-strain state and character of the tool wear in the conditions of action of the various heat and force loads;
- Certification and testing

Guest Editor

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About the Journal

Message from the Editorial Board

Now more than ever, research is asked to deliver knowledge and technologies to solve the major challenges faced by our society. The development of new materials and devices for (without the ambition to be exhaustive) energy, health and food technology, together with the need for establishing processes that reduce the impact on critical resources and the environment, is indeed in the spotlight of most contemporary research. Surface science and engineering play a key role in this regard, with an incredible potential in delivering new and deep scientific understanding and technical solutions essential to solve most of the major societal challenges.

Coatings is a well-established, peerreviewed, online journal dedicated to the vibrant field of surface science and engineering. Coatings publishes original research articles that report cutting-edge results and review papers that make the point on the hottest research topics.

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